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Marjatta Huhta

LANGUAGE AND COMMUNICATION FOR PROFESSIONAL PURPOSES

- Needs Analysis Methods in Industry and Business and their Yield to Stakeholders

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Globalization requires more effective communication competences of professionals, and therefore education - be it higher education or corporate training - takes an interest in efficient competence building. The study examines the construct of Language and Communication for Professional Purposes (LCPP) as appears through the language needs analyses in industry and business. The nature and content of discursive practice in organizations, domains and cultures interlinked in the professional setting is the focus of this study. The study seeks to define the construct of LCPP for higher education as it emerges inductively from the research material. The study also analyses the methods of language needs analysis to see their applicability for purposes of key stakeholders.

The study uses evaluation research to examine the utilization of LCPP from four stakeholder perspectives, language training organizers, teachers and trainers, learners and national policy makers, using the research material of the seven needs analyses of 1989- 2008. The findings support evidence-based language needs analysis, and the use a variety of methods. The education stakeholder groups agree on five principles of LCPP: narrow scoping, tailored grouping, trainer professionalism, learner empowerment and authenticity of material and activity. European and national language program policy making have their stake in LCPP. This study observes that Finnish language program policy from 1978 is based on a model where society takes the role of the organizer of education, not itself as a requirer of language resources. Neither are the language and communication needs requested by business and industry taken into account in language policy making, such as the request for a wider variety of languages. The study recommends a restructured model of language program policy making, to include societal language needs of social stakeholders.

The study proposes that the newest language needs analysis methods should be applied to include the dynamic, social and institutional aspects of discursive practice and the social action perspectives of socially situated discourse practice, in addition to the widely researched static text perspective. As for disciplinary inferences the study calls for more macro level research of discourse community practice, to complement the applied linguistics micro level research. As for language education, the study finds that positive markers of good language education are often related with sociocultural and experiential learning, intercultural competence building and learner agency and autonomy.

Key words: LCPP (Language and Communication for Professional Purposes), ESP, language needs analysis methods, language program policy, stakeholder perspective	
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Globalisaation lisääntyessä yrityksissä kaivataan tehokkaampaa viestintätaitoa. Siksi koulutuskentässä on kiinnostusta tehokkaamman kieli- ja viestintätaidon eväistä. Tässä tutkimuksessa professionalinen kieli- ja viestintä nähdään sosiaalisena ilmiönä ja professionaalista kieli- ja viestintätaitoa (LCPP) tutkitaan teollisuuden ja liiketoiminnan kielitaidon tarvekartoitusten valossa. Työssä keskitytään professionaalisen diskurssiyhteisön viestintäkäytäntöihin organisaatioissa, elämänalueilla, kulttuureissa ja näiden risteyskohdissa. Työ määrittelee LCPP -konstruktin sellaisena millaiseksi se muodostuu tutkimusaineiston induktiivisen analyysin tuloksena. Työ arvioi myös kielitaidon tarvekartoitusmenetelmiä ja niiden käyttökelpoisuutta erilaisten käyttäjäryhmien tarpeisiin.

Työssä käytetään evaluaatiotutkimuksen menetelmiä tarkasteltaessa LCPP:n hyödyntämistä. Ilmiötä katsotaan neljästä näkökulmasta: kielikoulutusrorganisaattorien, kouluttajien ja opettajien, oppijoiden ja kansallisen kielipolitiikan tekijöiden näkökulmasta. Aineiston muodostavat seitsemän vuosina 1989-2008 tehtyä tarvekartoitusta. Tarvekartoitusten tiedonlähteinä ovat olleet yritysten kielikoulutuksen organisoijat, teollisuuden ja teollisen liiketoiminnan ammattilaiset ja korkeakoulujen opettajat. Tutkimuksen tulokset kannustavat näyttöpohjaisten kielitaidon tarvekartoitusten käyttöön ja useiden eri menetelmien hyödyntämiseen. Käyttäjäryhmät ovat yksimielisiä viidestä LCPP:n keskeisestä periaatteesta: fokusoitu sisältö, räätälöity ryhmitys, kouluttajan professionaalisuus, oppijan valtauttaminen ja aineiston sekä toiminnan autenttisuus. Myös Eurooppalaisella ja kansallisella kieliohjelmapolitiikalla on roolinsa LCPP:ssä. Suomalaisen kieliohjelmapolitiikan malli vuodelta 1978 sisältää yhteiskunnan koulutuksen organisoijana, ei siis esim. kielitaidon tarvitsijana. Yrityssektorin kielitaidon tarvekartoitusten tuloksia, kuten vaatimusta monipuolisempaan kielitaitoon, ei ole myöskään otettu huomioon kieliohjelmapolitiikassa. Tutkimus esittää mallia, jossa yhteiskunnan eri sektorien tarpeet otetaan huomioon kieliohjelmapolitiikassa.

Tutkimus esittää, että kielitaidon tarvekartoituksista käytettäisiin uusimpia, jotka sisältävät entisen staattisen tekstinäkökulman lisäksi myös dynaamiset, diskurssikäytäntöjen sosiaaliset ja institutionaaliset tekijät ja sosiaalisen toiminnan tilannepohjaiset tekijät. Tieteenalakohtaisena päätelmänä tutkimus peräämme lisää tutkimusta kieli- ja viestintätaidon makrotasojen tutkimukseen täydentämään soveltavan kielitieteen nykyistä tutkimusta. Kielenopetuksen osalta työ havaitsee hyvien kielenopetuskäytäntöjen liittyvän sosiokulttuuriseen ja kokemukselliseen oppimiseen, kulttuurienvälisen osaamisen rakentamiseen ja autenttiseen oppimiseen.

Asiasanat professionaalinen kieli- ja viestintätaito (LCPP), English for Specific Purposes (ESP), kieliohjelmapolitiikka, kielitaidon tarvekartoitusmenetelmät, sidosryhmä

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PREFACE

Engineering students in Oulu were my first students, who taught a lot to the novice - by playing cards when I was off target. Then I taught academic university students in phonetics and suprasegmental prosodic - and missed back to my practical engineers. I realized why the kicks of linguistics are no kicks for engineers. Then I worked as a free lance English teacher in companies and public institutions 11 years - I filtered knowledge from marketing people to journalists, and engineers to managers, and was thrilled to mingle ideas of one to another. From there I moved to YLE, where I saw how technology & culture becomes a creative gourmet serving at best. A precious informant of mine from YLE said: “Creativity, creativity, creativity - 90% is NOT creativity; it’s persistent systematic engineering work”. He was so right.

From YLE I moved to Fintra (then VKS), where I had the opportunity to serve the training needs of companies such as Nokia, Kone, ABB, Kemira, Metsä-Serla, LMEricsson, Outokumpu, Valmet, IBM, ABB organizing language courses, negotiation and communication skills, export and international business management. This eight-year phase involved the doing of actual business, not only planning and implementing training.

During the above years of practice, I did not have time to interrupt the rapid flow of events with theoretical analysis. After ten years working with engineers I was ready to sit back and systematize what communication is business and industry is really all about. My research journey since 2002 links the above experiences of businesses, technologies, professional domains and cultures of learning from the perspective of communication. I have come to respect the spheres of professional activity, their profound similarity of human function, but their deep distinctions of cultures, perceptions and conceptions; I found the University of Technology, Department of Industrial Engineering and Management, very helpful for navigating this multidisciplinary terrain of language and communication of business and industry

I use a lot of ‘we’ in my dissertation. This is because most of the needs analysis work has been done in project groups. There are numerous groups that I owe this study to: the Fintra people, the National Board of Education people, the Prolang people, the COP-Stadia people, the CEF Professional people, the group of applied science university language teachers, the ARENE language group people and the language and communication specialist team. Without networks of ambitious people like yourselves results of development projects fade away and die, without becoming sustained, systematic practice. These groups have all contributed greatly to development of language and communication for professional purposes. I am especially indebted to Dr Timo Luopajärvi and Dr Marja-Liisa Tenhunen for believing in language education and taking measures to improve its status.

I owe greatly to many people, who have taken a lot of time with my dissertation: Prof. Eila Järvenpää, Prof. Viljo Kohonen, Dr Riitta Jaatinen, Esko Johnson, PhL, Prof. Karin Vogt, Prof. Sauli Takala, Prof. Heljä Antola-Crowe and Dr Taina Vuorela have all read versions of the dissertation and given their feedback. I also thank Elina Huhta for feeding me the idea for the approach and Jaakko Huhta for helping out with some illustrations. I have had a host of colleagues to support me. I came to appreciate the wonderful service of the Metropolia library people - thank you for getting me all the references I needed. I thank the Helsinki Engineering Education Foundation for granting a scholarship for the study.

Last but not least: I thank my family, Elina, Kaisa, Pekka, Sari, Jaakko, Ansku, Erkki and my closest people for their support. This includes people like Mirjami, Heljä, Glenn, Mari, Laura, Tita, Hannu, Markkis, Eki, nine wonderful sisters and brothers, with extended families and life spicers Siiri and Elsa. Pinja, our well behaved Welsh springer spaniel, I’m sure, is able to recognize good bits of texts from bad ones. You can tell by the wagging of the tail.

Järvenpää Oct 10, 2009
Marjatta Huhta

LIST OF ACRONYMS

AR	Action Research
CDA	Critical Discourse Analysis
CEF Professional	CEF Professional is a Leonardo da Vinci project 2005-2007 using professional profiles applied from the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (published by Cambridge: CUP 2001)
CEFR	Common European Framework of Reference for Languages: Learning, Teaching, Assessment (published by Cambridge: CUP 2001)
EAP	English for Academic Purposes
EGP	English for General Purposes
ELT	English Language Teaching
EOP	English for Occupational Purposes
ESP	English for Specific Purposes
EST	English for Science and Technology
EVK	Eurooppalainen viitekehys - Kielten oppimisen, opettamisen ja arvioinnin yhteinen eurooppalainen viitekehys, Finnish version of CEFR
fn	footnote
HR	Human Resources
IL	Interlanguage
L2	Foreign language, other than native language (second, third, fourth language)
LC	Language and Communication
LCPP	Language and Communication for Professional Purposes
LGP	Language for General Purposes
LSP	Languages for Specific Purposes
LT	Language Training
LWULT	Less Widely Used and Taught Languages
M1, M2…	Method 1, 2….
NA	Needs Analysis
NN	non-native
PAR	participatory action research
PSA	Present Situation Analysis (Richterich & Chancerel 1980)
S1, S2…	Stakeholder 1, stakeholder 2…
SCT	Socio-cultural Theory
SLA	Second Language Acquisition (Learning)
SME	Small and Medium-sized Enterprise
SSI	subject specialist informant (Selinker 1988)
TESOL	Teaching English for Speakers of Other Languages
TSA	Target Situation Analysis (Munby 1978)
VOLL	Vocationally Oriented Language Learning
VESL	Vocational English as a Second Language

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1 INTRODUCTION

This study concerns the need for language and communication (LC) by engineering professionals using a second language (L2), lingua franca English, in the domain of international technology-oriented business and industry in Finland. There are two main points of interest: what is this particular LC needed for professional purposes emerging from the needs analyses in industry and business, and how have language and communication needs analyses been used to yield knowledge about language and communication in business and industry. The study also examines to what extent the language needs of industry and business are taken into account in national language education policy in Finland.

Globalization places increasing demands on effective communication (TEK 2009; Takala 2008; EVA 2008; Sajavaara 2006; EK 2005; Huhta 2003), especially in English. The demand for LC competencies is widespread in the global business world. Growing businesses in the 21st century cannot help but be involved in international markets and global partnerships. Intensified international collaboration, client-partner relationships, multi-point project work and localized documentation in many languages have resulted in an abundance of multicultural communicative encounters. Yet the national language resource is not increasing but decreasing (Takala 2008; Sajavaara 2006), with long term impact. Finnish language policy dates from 1979 (Language Program Committee 1979), and despite major demographic changes in the language ecosystem (Statistics Finland 2008), it has only been slightly updated since, as shown in Section 4.2. Moreover, the theoretical model used for building language program policy in 1979 (Takala 1979; Piri 2001) did not include the element of societal utilitarian needs of industry, economy and business, the key drivers of the national economy and employment. The societal needs of industry, economy and business were only included in the reflection and estimates of language demand (Takala 2008), not in the language policy development models. This is not exceptional in the European context: the Kaplan & Baldauf analysis of language planning process includes various administration agencies but no analysis of language ecosystem and language resource needs of industry economy and business (Kaplan & Baldauf 1997:6). There is thus a need for examining language needs from the societal perspective.

The central motive for this study arises from the language and communication needs and related research. Language needs analyses have been widely used since the 1970s, yet not very much studied, though they can provide vital information for the benefit of language policy and language program planning and of curriculum content design. In a broad sense, in accordance with evaluation studies, needs analyses (NAs) are qualitative social studies analysis tools used “to contextualize evaluation findings and recommendations and to help decision makers think about varying future conditions that could affect implementation of alternative recommendations” (Patton 2002:328-329). Needs analyses have been used by linguists since the 1960s in a variety of contexts (Sinkkonen 1998; Long 2005a:19-

76; Vogt 2005; Vogt &Johnson (forthcoming)), as shown in Sections 2.4 - 2.6. Language and communication needs analyses have provided plenty of data about language demands in business and industry, yet their input are scarcely visible in language policy making. Moreover, the national language resource is not developing in the direction requested by business and industry, as shown in Section 3.4.2. According to Long, books and journals are rich in reporting on needs analysis findings, yet relatively little attention is paid to needs analysis itself. Long argues that needs analysis literature, with few exceptions, is reminiscent of writing on language pedagogy 20 years ago in that writers offer no evidence that what they describe works at all or works better than alternative 'methods'. Long declares "an urgent need for a serious research program focused on methodological options" (Long 2005b:2). This study seeks to examine language needs analysis methods and their applicability to identifying the language and communication needs of different stakeholders.

The beneficiaries of this study are higher education institutions, corporate training organizers and national policy makers. More precisely, this study concerns language and communication education and its content for professional purposes, as provided by private language schools, university language centers and universities of applied sciences (UASs). There are two principal approaches in Languages for Specific Purposes (LSP): the wide angle approach of teaching the 'underlying competencies' in language (Hutcheson & Waters 1980) and the narrow angle approach of teaching the 'specificity of learner needs' (Hyland 2002; Huckin 2003). The findings of needs analyses favor the latter approach. In LSP, much of the teaching is given by part-time teachers and training consultants, who must create customized to-the-point courses with few resources as their job security is never guaranteed for a long time. This affects professional development in that only few can concentrate on consistent development in this field, never mind consistent research. UASs and university language centers are institutions with full time jobs in the field and could also engage in research. However, research at these institutions is only allowed to a very limited extent and is often not included in teachers' job descriptions. There is no time or money – and considering the competition, no interest – to engage in research or to publish the tricks of the trade. Therefore, research in this field is necessary in order to create and consolidate a knowledge base, solid enough to build on and also helpful for the professional communities of LCPP practitioners.

The context here is limited to engineering professions in business and industry, who are involved in knowledge work, understood as the "practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organizations" (Swan et al. 1999). Language and communication are human competences that allow interaction in multicultural internal contexts and across national borders. Language and communication in L2 involve activities in knowledge work, which concern "the effective learning processes associated with exploration, exploitation and sharing of human knowledge (tacit and explicit) that use appropriate technology and cultural environments to enhance an organization's intellectual capital and performance" (Jaspahara 2004:12).

The main objective of the study is to examine how needs analysis methods of language and communication at workplaces have contributed to the understanding of teaching language and communication for professional purposes (LCPP). English was taken as the target language because it is the foreign language with the greatest 'need' or 'demand' in Finland. English has become the lingua franca, a culture-neutral code of business and industry. But the lingua franca position of English is not without its problems, as Cohen (2001) explains:

> Let there be no mistake: the use of an international language such as English is indispensable for the efficient handling of international affairs, broadly defined. However, it seems that the infallibility of English as a universal panacea to problems of cross-cultural problems has been greatly exaggerated. […] As long as the lingua franca is used in a mechanical (and culturally impoverished) way, with limited vocabulary, narrowly defined according to clearly understood conventions, then international business - commercial, scientific, technical - can be efficiently conducted. […] For rich and intimate communication on complex, important issues something more is needed. […] The solution is […] the acquisition of several foreign languages, indeed the celebration of multilingualism. (Cohen 2001:89-91)

Using English as the lingua franca (Mauranen 2003; Kankaanranta 2005; Ahvenainen 2005) has brought recognizable benefits for international collaboration. At the same time, its hegemony can be seen as a threat for both native and non-native speakers of English (Chesterman 2005; Mauranen 2003). For business communication, the use of English has brought significant advantages. We may distinguish between two slightly different depths of sophistication: firstly, the narrow utilization focus of lingua franca for clearly understood conventions of international business in commercial, scientific and technical settings realistically learnable for L2 learners, and secondly, the broad utilization focus of lingua franca L1 or L2 in complex, nuanced communication, achievable by birth or through multiple years of access to the language and acculturation. The present study focuses more on the skills acquired as L2, which are functional yet may not necessarily reach the depth of nuance and stylistic sophistication of a native speaker.

Most needs analyses, both in Finland (Section 2.5) and elsewhere in Europe (Section 2.6), have been conducted from the perspective of an individual's language needs. I choose to look at both groups from the 'demand' perspective of working life, although one of the two user groups of pre-service and in-service participants, undergraduate students, are not yet part of any organization. However, their LC contents should be geared towards the needs of their future workplaces, and thus their LC competences can be seen in the context of the demands of the workplace. Within this wider social and societal view on language and communication skills, this study hopes to picture language skills as a Human Resource in society that belongs to the competences of business and industry employees navigating in a global world and engaged in continuous learning in a changing environment.

1.1 Scope of the Study

The scope of this study is limited to two main objects: language needs analyses and how they benefit Language and Communication for Professional Purposes (LCPP) for stakeholders such as the national language policy makers. The explored language needs concern the setting of industry and business, and the supply of language skills is scrutinized also in relation to the supply of national language education policy. LCPP is a term first proposed in connection with two of the most recent needs analyses, COP-Stadia Professional Frameworks of Reference (Needs Analysis 6 - NA6) and CEF Professional profiles (NA7), as an extension of practice and research in English for Specific Purposes (ESP) and Languages for Specific Purposes (Huhta et al. 2006; Huhta 2007a). LCPP is characterized by an emphasis on the social and societal needs of the discourse community in communication and an individual's capacities to meet the competence demands in L2 communication.

The research material comprise seven needs analyses conducted between 1989 and 2007 whose main findings have been published or disseminated, as detailed in Section 5.6, and in which the writer was involved as a needs analyst and coordinator. This study applies a social and societal perspective to needs analyses and re-examines the findings (some of them previously not analyzed) from the demand and supply viewpoint. Thus the 'demand' comes from identified language and communication needs in industry and the 'supply' from the language resource that is available. The seven NAs are considered from the social stakeholder perspective of four parties – company HR departments, language teachers, language learners and national language policy makers – to see what LCPP is made up of.

The focus is limited to language needs in industry and business, principally concerning major companies involved in technology-oriented international business. Companies where LCPP occurs were selected from the list of major exporters and importers for NA1-2, and on the basis of the geographical distribution of major industries for NA4. NA5-7 relied on a purposeful sampling of companies, as these NAs described local, field-specific conditions of communication also in Germany, Poland and Bulgaria, as detailed in the interviews conducted for needs analysis 7 in Table 6.

The study uses the evaluation research method, first to examine the needs analysis methods adopted in the research material and then to examine in detail the contents of the needs analyses relating to the teaching of LCPP. The method is discussed and motivated in Section 5, Material and Methods.

1.2 Research Questions

The study is focused on three research questions:

1. How have different language needs analysis methods been used to examine language and communication needs in technology-oriented industry and business?

2. What are the defining characteristics of the emergent construct of LCPP arising from different stakeholder perspectives in the needs analyses?
3. How are the industry and business language needs considered in Finnish national language education policy?

The first research question examines language and communication needs analyses for the purpose of understanding what output can and cannot be gained using the language needs analysis methods, and which methods could be best for national language program planning and for determining education and training content design.

The second research question concerns the utilization of language needs analysis results for language training purposes, in company language training and in engineering language education.

The third question looks at language needs as a societal phenomenon and seeks to understand why the increasing needs for plurilingualism in Finland and Europe are approached in Finnish national language education policy in ways that mismatch the languages demand in industry and business.

1.3 Research Approach

The logical discipline to base this LCPP study on would be in languages and applied linguistics. I have, however, chosen to expand the circle of applied linguistics to social sciences, as I find applied linguistics insufficient for understanding the phenomenon of language and communication needs for professional purposes, as shown in Section 3.1, where we deal with applied linguistics research. In brief, applied linguistics has been warned of increasingly becoming distanced from both self-reflexivity, and practical values more generally (Roberts 2003; Sarangi&Candlin 2003: 273) and more attention to reflexivity and relevance (Sarangi&Candlin 2003; Bourdieu &Wacquant 1992). Thus, the research here focuses on not only the 'zones of mastery' but also those indeterminate situations that may become the resource fr their accumulating of the professional competencies (Srikant&Candlin 2003:276). For teachers for professional communication this calls for not only 'reflection in action' but also 'reflection on' their work, concepts suggested by Schön (1983, 1987).

This study is done in practitioner communities of technical communication, business communication and organizational communication. Circles of linguistic ethnography in Britain have also recognized a shift of focus from 'singulars' to 'regions' (Rampton 2007:593-4) in the discussion of linguistic ethnography. Singulars - intradisciplinary research - are "orientated to their own development, protected by strong boundaries and hierarchies" (Bernstein 1996:65), regions - real life focus areas - are " recontextualizing singulars into larger units which operate both in the intellectual field of disciplines and in the field of external practice. Regions are the interface between disciplines (singulars) and the technologies the make possible. Thus engineering, medicine, architecture are regions. Contemporary regions would be science, management, business studies, communications and media." (Bernstein 1996:65) The region of LCPP thus operates within many disciplinary areas of applied linguistics, sociolinguistics, social sciences, communication theory, to name a few, and LCPP itself is a region of practice and, potentially also initiating theory. Rampton also points out that almost by definition; it is harder to specify academic identity in the interdisciplinary regions than working for singulars (2007: 594). Despite hazards of being discovered eclectic for disciplinary theory, this study limits its attention to the region of LCPP, and seeks to construct its characteristics arising from the results of language needs analyses. Thus while this study is based on applied linguistics, the approach is multidisciplinary, drawing strongly on social sciences for the above reasons.

The research approach relies mainly on qualitative methodology, with some input from quantitative methods in certain needs analyses. Evaluation research (Patton 1997; Clarke 2003, Cordrey & Lipsey 1986; Chen 1990) is used to examine the research material of seven needs analyses, because evaluation research provides a suitable, knowledge-oriented approach for examining language and communication in social contexts. The focus of the inductive evaluation analysis is based on utilization-focused evaluation (Patton 2008 (1997), 2002; Cuba & Lincoln 1988; Weiss 1997, 1995, 1990) with emphasis on the stakeholder focus (Mendelow 1987; Weiss 1988; Patton 2008 (1997); Clarke 1999). The categorization of needs analyses is based on Long (2005b) and additions are suggested to complement this categorization.

In this study the social aspects of communication are included in the study of communication in business and professional environments (Scollon & Scollon 2001; Hirokawa et al. 2004; Candlin 2005, 1987; Candlin & Maley 1997; Sarangi & Roberts 1999; Drew & Heritage 1992; Duranti & Goodwin 1992; Boswood 1999).

The needs analyses of 1989-2008 are regarded as evaluations of language needs (McKillip 1998), though not all of them are unambiguously evaluation inquiries, such as the earliest needs analyses from 1989 and 1994. The object of evaluation is the 'program', some form of language education or training aiming to teach language and communication for professional purposes (referred to as LCPP). I also evaluate the needs analysis methods. My examining of the seven evaluation studies may be regarded as evaluation research, a process where different aspects of programs (=LCPP) are evaluated, analyzed, improved and affected by the seven needs analysis studies. The focus of these studies shift depending on identified development perspectives of the program implementations of LCPP.

The motive for the study arises from my having been involved in the process of language and communication activity for decades. I have been a freelance teacher and training consultant for corporate personnel and an administrator of language and business training programs, and I have researched LC needs in business and industry though needs analysis since 1987. Subsequently, I have taught undergraduate and graduate students of engineering in language, communication and research writing, and designed and published course materials and coordinated research projects in LC in the fields of engineering, health care and culture. From a personal, insider's emic perspective, major progress has been made in the field of LCPP during these decades, based on data in graduate feedback, workplace support, reviewed publications, European funding and, last but not least, personal experience. What has suffered is the 'etic' analysis of what the knowledge base acquired actually is and how it can be valued from a social and societal perspective. An insider's attempt to conduct etic analysis may naturally be biased – I have aimed to strike a balance by including opposing views and by remaining sensitive to inductions of the qualitative material especially in Section 6, Evaluation of the Contents of LCPP, and Section 7, Discussion and Conclusions. The study progresses in line with the figure 1, Structure of study as follows:

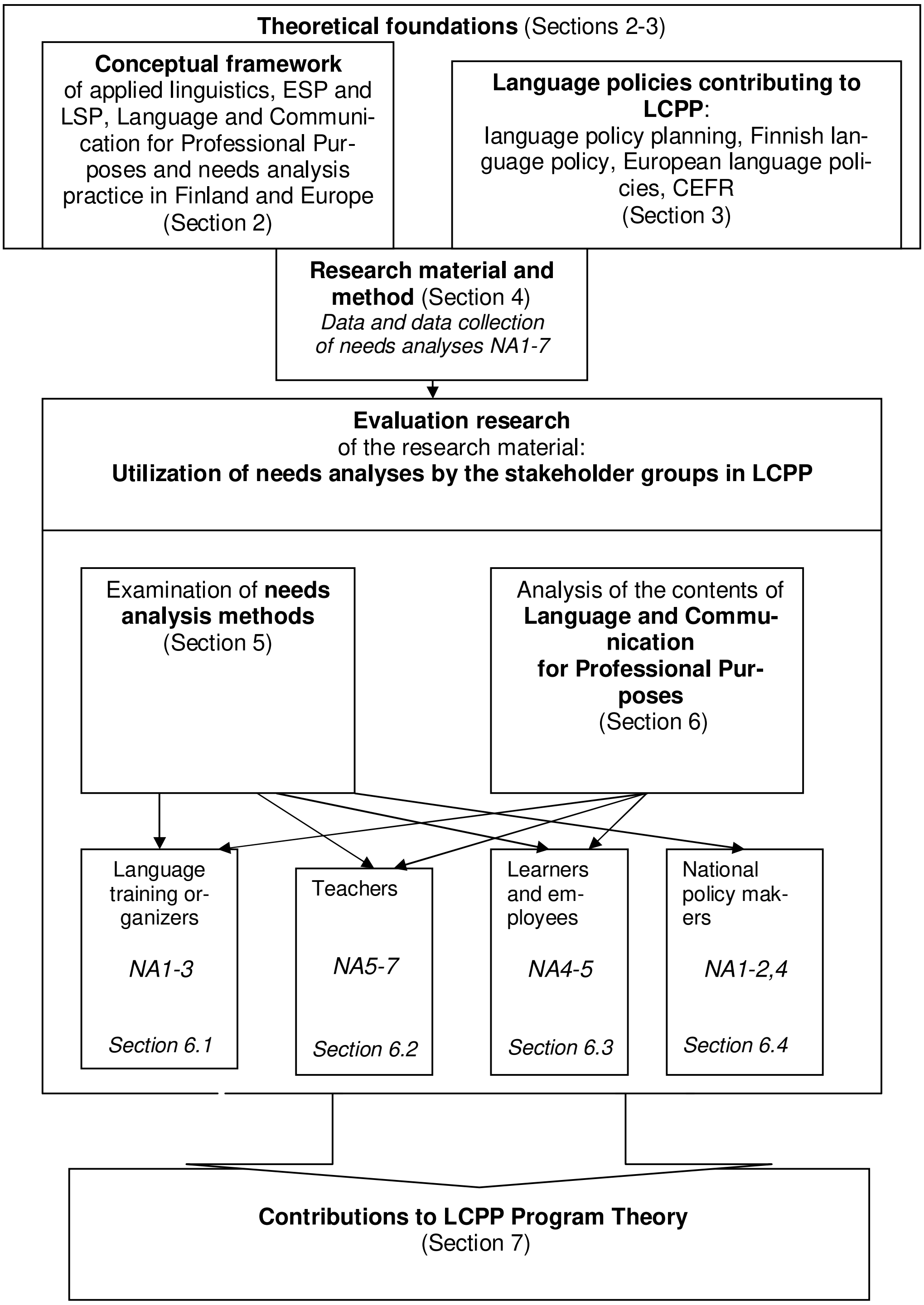
Theoretical foundations (Sections 2-3)
Conceptual framework of applied linguistics, ESP and LSP, Language and Communication for Professional Purposes and needs analysis practice in Finland and Europe (Section 2)
Language policies contributing to LCPP: language policy planning, Finnish language policy, European language policies, CEFR (Section 3)
Research material and method (Section 4)
Data and data collection of needs analyses NA1-7
Evaluation research of the research material:
Utilization of needs analyses by the stakeholder groups in LCPP
Examination of needs analysis methods (Section 5)
Analysis of the contents of Language and Communication for Professional Purposes (Section 6)
Language training organizers
NA1-3
Section 6.1
Teachers
NA5-7
Section 6.2
Learners and employees
NA4-5
Section 6.3
National policy makers
NA1-2,4
Section 6.4
Contributions to LCPP Program Theory
(Section 7)

Figure 1. Overview of study.

As shown in figure 1 the first two sections in this study establish the conceptual framework of existing knowledge in the key concept of the study, LCPP. Section 2 lays down the theoretical framework of English for Specific Purposes (ESP) and Languages for Specific Purposes (LSP), where the roots of LCPP research lie. Language and communication need is a very local and contextual experience, which is why, Finland specifically and Europe overall are discussed separately: Finnish needs analyses in Section 2.5, and the European context in Section 2.6.

Section 3 reviews the broad contexts of social and societal language and communication needs as facilitated, and restricted, by education policy and language program policy making. European language policies (3.1) and commonly agreed European language policy making documents such as the Common European Framework of Reference for Languages (3.2) influence how language and communication resources are perceived and assessed. The language resources of learners are largely the product of the formal language education system. This is why language policy and overall language planning (3.3), the Finnish language education program (3.4) and teacher education policy (3.5) are discussed in separate subsections.

Section 4 lays down the research design (4.1) and why evaluation research was chosen as method (4.2) to examine language needs analysis and LCPP. Section 4.4 reports on how the evaluation research was conducted in two stages and section 4.5 how the inductive analysis resulted in the identification of the eight principles of LCPP. The contexts in which the needs analyses have been conducted are reported in section 4.5. The data of seven needs analyses are presented, including method and data collection, background factors of the NA, data analysis and format of reporting and the researchers' role in each of the NAs (Section 4.6). The needs analyses relate to language teaching in two main contexts, corporate language training and universities of applied sciences. They are introduced in section 4.4.

The latter part of the study from Section 5 onwards reports on the results of the evaluation. Section 5 explores and evaluates the types of needs analysis methods used on the research material in NA 1-7 and analyses their usefulness for organizers, teachers, learners and language policy makers. Section 6 examines the utilization of LCPP from the perspectives of four stakeholder groups: language training organizers (6.1), teachers (6.2), learners (6.3), and national language policy makers (6.4), aiming to construct an increased understanding of LCPP.

In Section 7 summarizes the findings and discusses their reliability and validity and value for the needs suggested at the beginning: their contribution to national language resource development, to language needs analysis research, and to updating the LCPP knowledge base for teachers and trainers of present and future business and industry professionals.

2 CONCEPTUAL FRAMEWORK OF LANGUAGE AND COMMUNICATION FOR PROFESSIONAL PURPOSES

The conceptual framework of LCPP consists of ESP practice, applied linguistics theories and existing needs analysis practice. Therefore this section discusses the practice of English for Specific Purposes (ESP) first (2.1), where the roots of LCPP lie, and foundations of applied linguistics research (2.2). This section also outlines the central concepts of this study – communication, professional purposes, and specificity of language and communication (2.3). Language needs analysis practice is described, first in Finland (2.4) and then in the European context 2.5), drawing on the classification presented by Long (2005).

This section starts with a preliminary set of expectations that the researcher had at the start of the study, accumulated through experience in teaching, organizing and teaching language and communication for professional purposes. These expectations are not details but a rather holistic picture of variables that relate to language and communication for professional purposes. The global environment of knowledge-based work affects the language and communication of various professions, fields of engineering, and business contexts. We can only predict impacts on the basis of cross-cultural complications and organizational constraints. Figure 2 illustrates some aspects that are present in the puzzle of LCPP - a graph I drew in 1999 as an attempt to understand the character of LCPP.

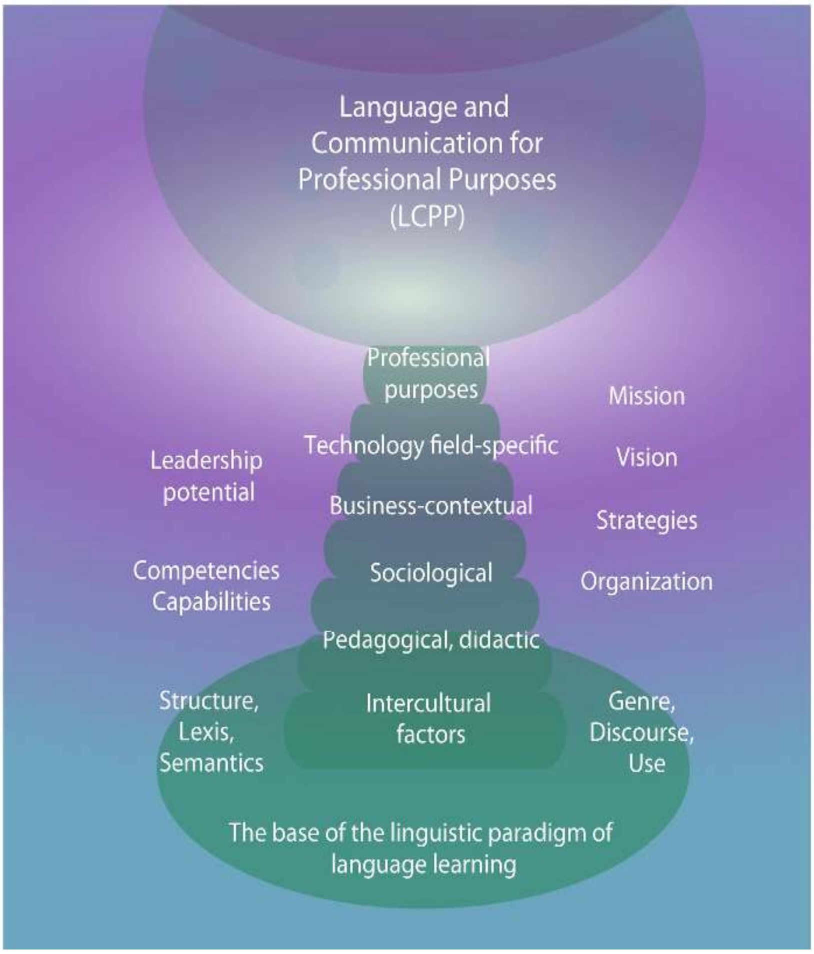

Figure 2. Expected aspects influencing Language and Communication for Professional Purposes.

Figure 2 illustrates, in the shape of a wine glass, a number of factors that are interrelated in the system of LCPP. The foot of the wineglass rests on a solid ground of linguistic research traditions: structures, lexis, semantics, genre and discourse. In foreign languages, the cultural aspect is always present for encounters with other languages and cultures, an extensively explored research orientation in anthropology and sociology (Hall 1990, 1985, 1966, 1959; Hofstede 2005, 1980; Byram 1989; Risager 2006, 2005). The pedagogical or didactic elements need to be considered when choosing what to teach, how to teach or whether to allow the learners to teach themselves. After the building blocks of the stem, we turn to the social environment where communication takes place in an organization. Strategic decision-making in a company is based on a corporate vision and mission statements stating how to fulfill that vision. On the left hand side of the glass, we consider communication from the point of view of the individual's competencies, capabilities and leadership potential. From these social and individual contributing factors we now return to the base of the bowl of the glass, approaching the wine itself, a flavor yet untouched. The communication – whether business oriented or technology oriented – takes places within the business context, which presupposes some general principles of the utilitarian discourse system (Scollon & Scollon 2001:116) and may exclude some other discourses such as religion or party politics. What all the components of the glass of communication are, and what their interrelations are, is still much based on hunches, because the research traditions of linguistics, examine language mainly as a static linguistic phenomenon, admittedly placed in context. Language as means of communication insufficiently studied (Hirokawa et al. 1996:269-290). Once an engineering graduate enters the global business environment, the static details of linguistics vanish into the periphery, as communication calls for a comprehensive approach. Communication events occur at critical moments where the professional needs to interact purposefully and successfully, using a foreign language as if it were his/her own. Therefore, a social and societal viewpoint is a relevant one to add to the tradition of linguistics.

2.1 The Practice of Language Teaching for Specific Purposes

The term LCPP is used in this study (previously also in Huhta et al. 2006, 2007a) for an evidence-based manner of examining language and communication in professional settings. LCPP has roots as it builds on the origins of ESP (English for Specific Purposes) and LSP (Languages for Specific Purposes) practice and research. A closer study of LSP reveals that even a definition for LSP is hard to find (confirmed by Robinson 1991:1), as the tradition of LSP is so strongly built on the traditions of ESP. ESP originates from the British tradition of teaching English as a second language to speakers of other languages by English-speakers in English without using the learner's native language, the main emphasis being on university language teaching, for the purposes of students studying in English. Therefore, as we continue discussion about the roots of LCPP, we must refer to the concept of ESP, in accordance with available reference material. While using the acronym ESP, we should take it to refer to other languages as well (LSP), in accordance with applied practice (Strevens 1988:1), which is illogical but persists in the 'specific purposes' practice and research communities.

Absolute characteristics of ESP

ESP has been defined using qualifying statements about its absolute and variable characteristics. The frequently quoted characteristics of ESP agree on certain absolutes. The goal-directedness of ESP (Robinson 1991:2) is seen as one of these absolute characteristics. The goals meet the needs of the learner (Dudley-Evans & St. Johns 2002; Robinson 1991; Strevens 1988). ESP applies the methodology and activities of the discipline it serves (Dudley-Evans & St. John 2002). ESP is centered on the language, skills, discourse and genres appropriate for these activities (Ibid.). An ESP course involves specialist language, especially terminology and content (Robinson 1991:4-5).

Strevens sees ESP related in content (i.e. in its themes and topics) to particular disciplines, occupations and activities and centered on the language appropriate to those activities, in syntax, lexis, discourse, semantics, etc. (Strevens 1988). ESP is generally designed for intermediate or advanced learners. Most ESP courses assume some basic knowledge of the language system, but it can also be used for beginners (Dudley-Evans & St. John 2002). Several writers argue that ESP is more cost-effective or less wasteful than General English (Strevens 1988; Reeves and Wright 1996; Huhta 2002b; Koster 2004b). As for learner reception, ESP teaching is perceived as relevant by the learner, and ESP is seen in contrast with 'General English' (Strevens 1988). This is also true of LCPP.

Variable characteristics of ESP

The variable characteristics of ESP mentioned in literature depend on circumstances, and do not always apply. Sometimes an ESP course is restricted to the language sub-skills to be learned (e.g. reading only; oral only, etc.), which LCPP is not, due to its more holistic approach. Sometimes ESP may be taught according to pre-ordained methodology (i.e., ESP is not restricted to any particular methodology, although communicative methodology is often felt to be the most appropriate) (Strevens 1988:1-2). An ESP course lasts for a clearly specified time period (Robinson 1991:3) and is often planned in collaboration with those involved in the course: organizers, teachers, sponsors, and students (Robinson 1991:3; Huhta 1997:47,123). This is especially true of commercial applications of ESP. The students are adults rather than children (Robinson 1991:3), and they are all involved in the same kind of work or specialist studies (Ibid.:4). The objective and target group of an ESP course is defined (Huhta 1997:131-134; Huhta 2004:64). The course format is considered (Huhta 1997:115-120; Huhta 2004:64-68), and a reporting system to management is used (Huhta 1997:122-127).

Conceptions of ESP practice

Conceptions of ESP and LSP have opened up but have become fragmented at the same time. Understandings of ESP and its divisions to subcategories seems to be a contextual matter as well. Figures 3, 4 and 5 show attempts to locate the professional orientation of ESP (LCPP) within the ESP community practice. Johns (1990) suggests a division of ESP as follows:

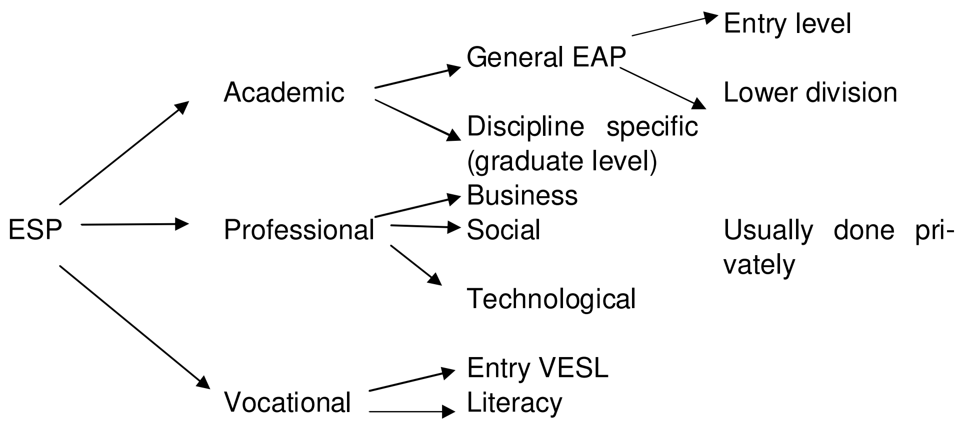

Figure 3. Subdivisions of ESP in the USA (Johns 1990).

Johns differentiates between academic, professional and vocational varieties of ESP, restricting the 'professional' practice mainly to private language training (Johns 1990). This reflects upon the situation in the USA where language training for professional needs are mainly catered for by private companies and consultancies.

Academic ESP is focused on academic discourse (Swales 2006) required in the use of English as language of study: essays, research papers, abstracts, theses. According to a recognized classification by Dudley-Evans and St. John (2002), ESP can be divided as follows in figure 4:

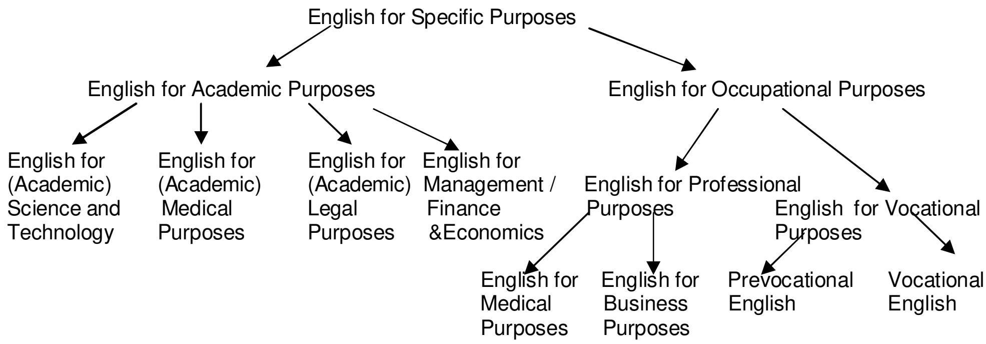

Figure 4. ESP classification by professional area (Dudley-Evans & St.John 2002: 6).

This classification of Dudley-Evans & St. John divides ESP into academic and occupational mainstreams, Professional Purposes being a subcategory of Occupational Purposes. Amazingly, Management, Finance and Economics are considered a subcategory of Occupational Purposes (as if academic research did not exist there), whereas English for Legal Purposes is categorized under Academic Purposes, even though the practice of a lawyer certainly is also a very practical profession. This may illustrate a situation in a local context; in theoretical terms, this requires further consideration. One point in this classification is interesting and most acceptable: Dudley-Evans & St. John's placement of English for Medical Purposes. The orientation can be academic and professional; academic in the communication of research in medicine and professional in clinical practice. From the curriculum design perspective it may be very well founded to assign students of different disciplines to study a specialization of language as above. This is may be quite necessary for a focus in curriculum.

At workplaces, staff interacts in interdiscursive practice with one another, whether academic, professional or vocational. From the point of view of learning a FL for the workplace, and taking a socio-cultural perspective of the organization, we must dare question the classification of Figure 3: if the domain and culture in an organization (e.g. a company) are the same, to what extent it is appropriate to classify English for Management, Finance and Economics as separate from English for Business Purposes. For educational purposes it may be reasonable to take educational background or the degree of a professional as a differentiating variable, but from the point of view of professional organizations the classification may be irrelevant. This factor needs to be looked at in the context of the needs analyses to be studied. Dudley-Evans & St. John's classification (2002) may be appropriate for academic teaching, but for workplace communication some other classification else might work better.

The conceptions of different categories of ESP language study in the context of the Finnish educational system match the American view of Johns (1990) better than that of Dudley-Evans & St John (2002) in that language is taught mainly for three purposes, academic, professional and vocational, as can be illustrated as a three-category division of figure 5 as follows:

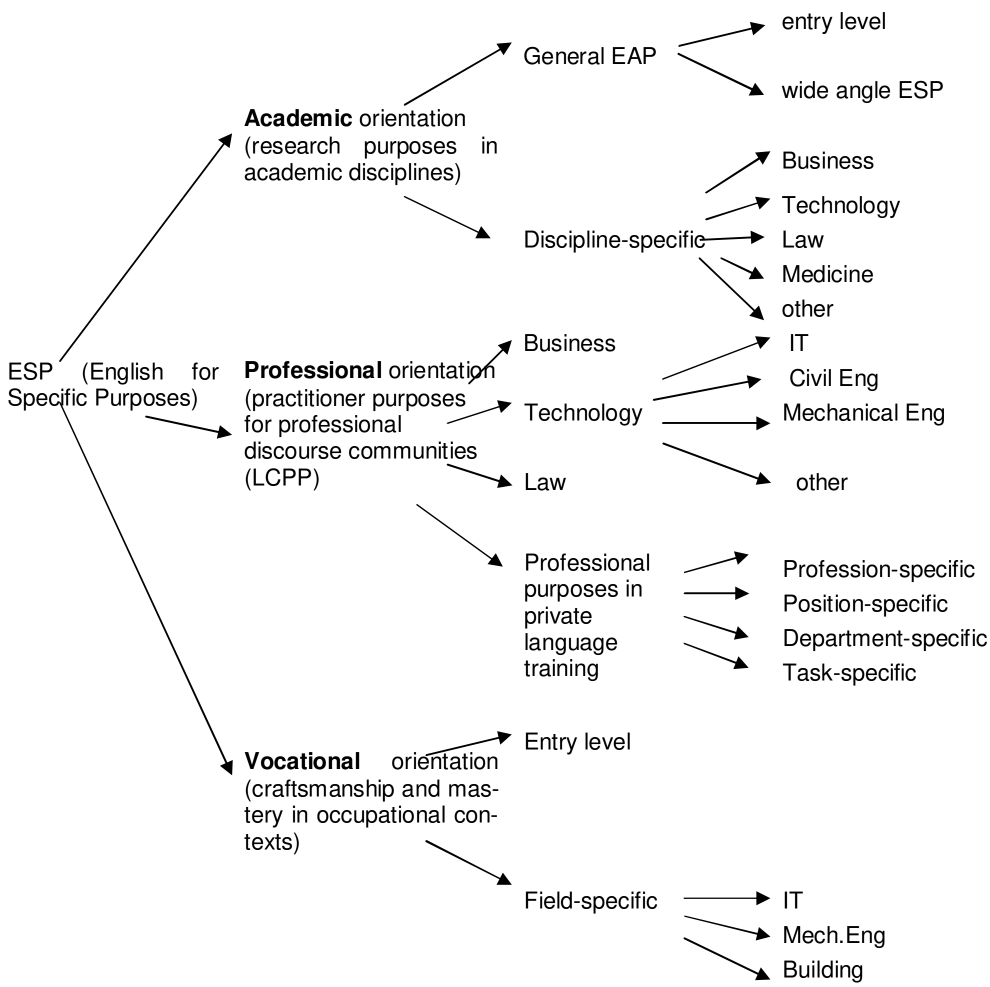

Figure 5. Orientations of Language and Communication for Professional Purposes within ESP.

Figure 5 illustrates the orientations of Languages for Specific Purposes as they appear in the Finnish context of public and private language education and training. The academic orientation of language learning for academic purposes is mainly covered by university language centers and individual university departments. The professional orientation is, implemented by private language service providers, by universities of applied sciences to a great extent, and partly also by science universities. Vocational orientation teaching takes place at vocational schools and colleges, but also in company language training by private language service providers.

There are few studies discussing research methodology in ESP (van Els & Oud-de Glas 1983; van Hest & Oud-de Glas 1990, Long 2005). Many ESP practitioners regard ESP simply as a teaching practice. Pedagogical decision making in ESP largely lacks "a coherent theory of LSP" (Selinker 1988:34). This has direct consequences for such decision making at all levels (for details, see Widdowson 1983). Selinker argues that no coherent theory of LSP pedagogical decision making can emerge until two issues are solved: the careful integration of interlanguage (IL) and a careful consideration of research methodology questions related to an LSP theory that is close to practice (Selinker 1988:34). Johns & Dudley-Evans (1991) question whether an appropriate ESP methodology can be developed at all. Research in ESP has been conducted since the late 1980s in the form of active discourse and genre study, but an explicit theory for ESP has still to be formulated.

ESP seems to be almost exclusively concerned with practice rather than research, despite the fact that there are numerous open questions. Strevens indicates that there are problems in ESP related to learners, teachers, methodology and materials and, last but not least, problems of assessment and testing (Strevens 1988:6).

Professional Purposes - General or Specific?

The point about the specificity of ESP needs special attention; in fact, the ESP teacher must address the question of what the 'specific' element actually is in the English he/she teaches. Hutcheson & Waters (1987) argue that

> ESP is not a matter of teaching 'specialized varieties' of English. The fact that language is used for a specific purpose does not imply that it is a special form of language, different in kind of other forms, Certainly, there are some features that can be identified and 'typical' of a particular context of use, which, therefore the learner is more likely to meet in the target situation. But these differences should not obscure the far larger area of common ground that underlies English use, and indeed, all language use. (Hutcheson & Waters 1987:18)

Koster points out that the term 'special' has sometimes been defined as 'restricted' (e.g. Mackay & Mountford 1978:4f), for example referring to the limited linguistic needs of a dining room waitress. This kind of restricted 'language' would not allow the speaker to communicate effectively outside the vocational environment (Koster 2004a:41). Sometimes this may be an ESP teacher's only available option, within a limited timeframe of teaching. Richards makes an essential point: the delicacy of context distinguishes ESP from English Language Teaching (Richards 1989:215). In the course of needs analyses we have come to understand that the nature of 'specific' in ESP does seem to relate less to terminology or special language and more to the requirements of the professional context.

Hutcheson & Waters, in 'ESP at the Crossroads' (1980), lay down the main argument for the 'wide angle' approach in ESP. They argue that specialized discourse should be left to those who know best, the specialist instructors of particular disciplines. Meanwhile, LSP teachers should occupy themselves teaching the 'underlying competence' that every student needs. Hyland (2002) discusses the specificity of ESP and argues that the ESP field has drifted away from specificity, becoming too generalized and diffuse. The 'wide-angle' perspective has become a necessity for classes that lack uniformity and focus, especially classes that are mixed. Hyland claims that generalized ESP "has crept into our current thinking and practices" and is gaining ground in university language teaching programs (Huckin 2003). Hyland lists four common reasons for this drift away from specificity: narrow-angle LSP (i) is too hard for lower-level students, (ii) is too expensive and (iii) can only be taught by knowledgeable specialists; moreover, (iv) features of language and discourse are generic, not language specific. We may note that professional terminology is not even mentioned, the prerequisite in ESP being to teach English mainly in English without the support of L1. Huckin agrees with the first two points but claims that LSP scholars are needed to teach technical varieties of language based on the knowledgeability they have gained through technical discourses. Discourses in different disciplines vary, but the functions of discourse elements remain the same (Huckin 2003:8). Both Hyland and Huckin agree that more specificity is needed and that the specificity of needs comes from the learner, not the teacher. This fairly recent discussion shows a common trend in ESP that calls for reconsideration on the part of LCPP. If ESP continues to foster more 'general underlying competencies' before the professional can learn to function in his/her discourse community, we need to think twice about the more cost effective option of 'narrow focus'. Hutcheson & Waters claim that the narrow angle approach is demotivating for students; therefore students should be grouped for ESP classes across broad subject areas with materials drawing from topics in a number of different specialist areas, thus making students aware of the "lack of specificity of their needs" (Hutcheson & Waters 1987:166-167).

Bhatia (2004) sees disciplines identified in terms of their content and in part by the field of discourse. According to him, disciplines, in spite of overlap between registers, have their typical characteristics and are primarily understood in terms of the specific knowledge, methodologies and shared practices of community members. He thus distances himself from the early ESP work of primarily focusing on specialist lexis and some surface-level syntactic features alone and focuses on the typical characteristics of specific knowledge, methodologies and community practices (2004: 31-2). The roots of ESP practice are of little help in understanding the social components of communication in workplace contexts. We will next discuss the foci of applied linguistics.

2.2 Theories of Applied Linguistics and Language Education Relevant for LCPP

ESP applies the theories of applied linguistics. Therefore it is significant to examine where the focus of these theories lie. LCPP is a phenomenon of applied linguistics considered in its broad interpretation and can be examined as a multidisciplinary phenomenon. The following is a discussion of what knowledge applied linguistics research yields about Language and Communication for Professional Purposes, and to what extent its areas have been be covered by applied linguistics research.

Applied linguistics is seen as problem driven and real world based rather than theory driven and disconnected from real language use (Kaplan & Widdowson 1992; Strevens 1992). Kaplan describes applied linguistics as an emerging discipline for the 21st century. Because of its problem oriented nature, it can deal with problems at the intersections of disciplines such as anthropology, sociology, economics, education theory, political science, psychology, computer sciences and literature. It grew out of structural and functional linguistics in the 1950s (Kaplan 2002:8-9), followed by applications in education (Corder 1973) and SLA (Second Language Acquisition) teaching and use in the 1970s. In the 1980s the field expanded to several subfields and their supporting disciplines, such as psychology, sociology and rhetoric. Applied linguistics is composed of a core and a periphery, the latter involving its connections with other disciplines. Kaplan says that applied linguistics can be seen as a discipline in its own right because the community publishes journals, is organized into associations and receives funding. Linguistics is the core of AL. Applied linguistics is grounded in language driven real world problems and incorporates disciplinary knowledge beyond linguistics. It includes a core set of issues and practices such as language training and curriculum development (Kaplan 2002:34) which are relevant for the present study.

Language use at workplaces comprises a professional environment, its discourse communities, professions and their discourses and interdiscursive practice within the community practiced through various communicative events such as meetings. There has been intensive research into discourse especially applied linguistics (Brown & Yule 1987; Schiffrin 1994; Schiffrin, Tannen & Hamilton 2006).

The roots of language research go back to the disciplines of linguistics, sociology, anthropology and philosophy, where the concept of discourse originated (see van Dijk 1985). Broadly speaking, the term ‘discourse’ refers to language beyond the sentence level. Other disciplines such as organization communication, social psychology and artificial intelligence have also applied the concept of discourse (Foucault 1982).

2.2.1 Focus for Applied Linguistics

Table 1 illustrates the levels at which Language and Communication for Professional Purposes could be examined. The left hand column shows the focus of study from the largest units (8) to the smallest ones (1), the middle column showing where the focus might be in LC study. The third column gives examples of the LC contexts of a software engineer who needs a second language (L2) in his/her profession, at the workplace with other professionals, with international clients abroad and at home, and in following the developments of business and technology globally, and finally in dealings with standardization and auditing bodies from different countries.

Table 1. Focus of language and communication discourse research (Huhta forthcoming).

Focus of communication (from least to most detail)	Language and communication for professional purposes	Spheres of learning in language and communication examples for a software engineer
8	Society and culture(s)	Country, EU, global business, economics
7	Domains, horizons	Industry and business;
6	Discourse community practice of the field (organization cultures), orders of discourse	Language/communication situations - within organizations of the field (e.g. ICT; field context), - organizational communication (e.g. company X) , - language of adjacent professions (e.g. engineers, business experts) -inter-professional communication (interdiscursive practice)
5	Range of communicative events of a profession and culture(s)	Communication situations in software engineering (in group professional context); Professional interaction
4	**Communicative event**	**Discourse of genres, e.g. meetings, presentations**
3	**Speech act**	**Communication strategies, politeness**
2	**Utterance**	**Grammar, vocabulary, pronunciation, stress**
1	**Sign**	**Meanings (designata), words**

Table 1 illustrates the levels of foci in language research, from units of detail (level 1) to wider contexts (level 8). The levels of interest to linguistics research are shown in bold type style.

Many research approaches have been applied to human language and communication. Some follow the qualities of structural i.e. formalist linguistics and others with functional approaches (see Hymes 1974b:79). Formalists such as Chomsky regard language primarily as a mental phenomenon; their research interests concentrate on levels 1-2. Functionalists such as Halliday and Hasan regard language as a societal phenomenon. Their research focus can be found at levels 3-4 in Table 1.

Some of the research approaches examine language from the bottom up (Nunan 1995:115), such as pragmatics, which focuses on signs in relation to interpreters. Another bottom up approach is variation analysis (Schiffrin 1994:190-227), which focuses on variation of text types and often uses quantitative analysis to indicate the spread of variation of linguistic elements in genres. Thus pragmatics generally studies language phenomena at levels 1-4. Variation analysis concentrates on language words, grammar and meanings (levels 2-3) in different genres.

Speech act theory concerns not only the structure, text and context of the communication event, but also its coherence (Grice 1975; Searle 1989). The speech act theory approach to coherence is rule-centered. It requires mapping rules of how to link utterances to an act and how to sequence the rules of speech acts to communication. This widely used research approach mainly concerns levels 3-4 above.

Interactional sociolinguistics focuses on language structure, use and social groups. Gumperz presents observations concerning, for example, discourse strategies such as code-switching in communication (Gumperz 1982a:12), depending on social communication partners. Following this line of thinking, Goffman discusses concepts of ‘the maintenance of self and face’ (Goffman 1967a:12, 7, 11, 39-40). The interests of interactional sociolinguistics seem to stem from an interest in language and culture on one hand and from an interest in the self and society on the other. Context is a critical element in interactional sociolinguistics, which focuses on levels 4 and 7.

Other approaches examine language above sentence level and can be described as top-down approaches (Nunan 1995:125). Conversation analysis has been articulated by sociologists, beginning with Harold Garfinkel, who developed ethnomethodology (Garfinkel 1974). This approach has a phenomenological basis. Conversation analysis distrusts linguistic categorization of the functions of words and phrases because these generalizations may not reflect the specific use of language to any degree. Conversation analysis is a source of social order. Conversation analysis examines the world of social relations, being “doubly contextual, being both context-shaped and context-renewing” (Heritage 1984:242). Ethnomethodological conversation analysis might be understood to focus on levels 7-8 in our categorization in Table 3.

Another top-down approach is the ethnography of communication, which is practiced in anthropology and linguistics. Developed in the 1960s and 1970s by Hymes in a series of papers (Hymes 1974a, 1974b, 1974c), it seeks to move away from the study of socio-cultural form and content as a “product” toward their study as “process”. According to Rampton “ethnography can be seen as humanizing language study, preventing linguistics from being reductive or shallow by embedding it in rich decriptions of how users of a given variety adopt their language to different situational purposes or contexts" (2007: 596). Linguistic ethnography has also opened a discussion on the need for interdisciplinarity, and the expansion of applied linguistics and sociolinguistics to social theory and discourse across social sciences (Tusting& Maybin 2007:765-766).

Business communication studies contain numerous examples of discourse- and genre-based research for example in negotiations, meetings, crisis communication and so on. The ethnography of communication research examines phenomena from level 4 up to level 7.

All the discussed perspectives can be said to be present in communication for professional purposes. But as we have seen, linguistics research tends to focus on the lowest levels: words, meanings, sentences and structures of texts. Fortunately, however, genre and discourse research has also been pursued, especially concerning the LC of medicine, law, and business, and to some extent in technology too. Therefore we know a great deal about the discourse of the workplace in these fields up to the level of communicative events (4). What both linguists and anthropologists tend to miss are levels 5 and 6, the range of communicative events and discourse practices of the field. We do not necessarily know which communicative events and discursive practices are needed in L2 by a mechanical engineer or a civil servant to be able to tailor an LC program to meet his/her needs.

Considering the contents of LCPP it seems that that linguists as researchers have primarily had interest in examining the bottom-up levels of LC. Also, while intensive genre research has taken place within academic fields such as management, medicine and law, levels beyond communicative events (level 5) have seldom attracted research interest except among sociologists and anthropologists (Huhta forthcoming).

A similar observation is made by Bhatia in the context of genre study:

> A typical socio-linguist interested in discourse analysis will perhaps begin from the top end, looking deeply and exhaustively into the social context, working his ways downward, but rarely getting seriously into the textual space. An applied linguist, on the other hand, would find it more profitable to begin at the bottom end, exploring the textual space exhaustively, working towards social space, often using social context as explanation for the analysis of textualization of lexico-grammatical and discourse resources. However, most users of the framework [of genre analysis*, my addition*] whether interested in socio-cultural issues, or pedagogical ones, at some stage or the other will necessarily pay some attention to the socio-cognitive aspects of genre construction, interpretation, use and exploitation of generic resources. (Bhatia 2002:18)

Bhatia (2004) discusses variation in genres within professional domains, genre sets and genre systems (Bazerman 1994:97), which demonstrate a recognized interest in the variety on genres at level 5 of genres, though focused on written discourse.

The environment of business and industry – levels 7 and 8 of society and culture of domains – challenges the specialist to utilize all his/her integrated competencies to cope well in global business. A sufficient knowledge of the contexts, partners, and contents of the communication is vital for the LC practitioner to be able to help the specialist to interact well and to make his/her message well understood – and accepted. Cicourel points out that meaningful analysis of social life - ecological validity - "cannot be achieved by close analysis of recordings of bried interactions alone, but must include a broader ethnographic research that enables researchers to place a particular encounter in the context of the texts, interactions, institutional practices and types of specialized training that shaped it. (Briggs 2007:586-587) More-over, as Briggs continues, social scientists such as Cicourel and Grimshaw have identified the need "to examine the implicit understanding of language, particularly in terms of how these ideologies justified the failure to examine the role of discursive practices in research." (Briggs 2007:589) This study makes an effort to understand how the conceptions of LCPP could be interpreted in the light of needs analysis findings.

This section has demonstrated how the research focus of linguistics in centered on levels 1- 4 of communication (Table 1), which are the micro levels texts. The overview levels of communication in organizations, fields and cultures are often studied in sociolinguistics, anthropology and social sciences. Those who need to communicate effectively at work using a foreign language must often construct their proficiency from components of linguistic elements, as many LC teaching approaches are geared to the analytic levels of language.

2.2.2 Language Teaching Paradigms

Language teaching theories and methodology are outside the scope of this study. However, for LCPP, as well as English for Specific Purposes as a whole, it is important to anchor the developments of needs analysis practice to the historical trends of language education, and their evolving paradigms. Therefore a brief overview of language education paradigms is in place.

Table 2 shows how the paradigms of foreign language education have changed over time, from the first generation of philological paradigm to the fourth generation of discourse analysis paradigm, as illustrated by Kohonen.

Table 2. Outline of paradigms in foreign language teaching (Kohonen 2005a).

Linguistics	Learning	Language Teaching	Evaluation
Traditional, Philology	[no clearly defined theory]	Grammar-translation	Translation
Structuralism	Behaviorism	Audiolingual theory	Analytic tests
TG (Transformation theory), pragmatism, sociolinguistics	Constructivism Humanism	Functional – communicative competence	Integrative tests; self-assessment
Discourse analyses, Dialogue	Socio-cultural and experiential learning	Language education, intercultural communicative competence	Authentic assessment; ELP (European portfolio), self assessment

Based on this analysis language education theories have progressed from the traditional and philological understanding of language as linguistic elements towards the second paradigm of structuralism, widely practiced in the 1980's. As an appearance of structuralism in learning, behavioristic learning methods were used, and rehearsed in teaching based on the audio-lingual approach, and an extensive use of audio material in teaching. The 90's brought in the third generation of transformational grammar, pragmatism and sociolinguistics into language education practice. This changed the teaching to rely more on constructivism, building on the roots of prior learning. The appreciated teaching approach relied on the development of functional competencies. The term communicative competence is a product of this tradition. The fourth stream of language education-related linguistic theory is based on discourse analysis and dialogue. The learning is seen as a sociocultural experience, and language teaching is strongly geared towards intercultural communicative competences

Testing is outside the scope of this study; however, the authentic assessment, in the right hand column of table 2 is often linked with authentic learning. Authentic learning, as will be relevant in the light of the results of needs analyses join the learning of language, communication and the professional content and culture into integrated teaching. Current theories of learning support authentic and experiential learning, which involve the learner in the experience of learning (Kohonen 2005, van Lier 1996). This focus is also called the language education view. Some on the typical applications of this approach relate to authenticity of tasks and learner autonomy.

Theories of authentic learning support socio-cultural and experiential learning, which involve the learner in the experience of learning. This focus is also called the language education view. Some on the typical applications of this approach relate to authenticity of tasks and learner autonomy, which will appear in the needs analyses of the latest generations of needs analysis practice.

2.3 Concepts of Language and Communication for Professional Purposes

LCPP is purposeful human interaction typical of knowledge work of professionals. The communication includes the use of verbal and non-verbal communication as part of procedures of professional discourse community practice. Communication is utilized to construct meaning within management systems (Jackson 2003), organization cultures (Hatch 1997) and networks of stakeholders (Mendelow 1987:177; Freeman & Reed 1983) for the purpose of learning (Senge 1990; Argyris 2002; Argyris & Schön 1996) and in professions and communities of practice (Lave &Wenger 1991) within society. Communication can also be regarded as a medium for decision-making (Poole & Hirokawa 2004:7). LCPP arises from the interests of professional LC usage in a second language (L2) and serves the purposes of effective language and communication utilization in professional settings.

The term language in the context of second language learning needs elaboration. Recent developments in linguistics and related disciplines have led to a wider conceptualization of the knowledge and skills of a second language learner. The current second language acquisition understanding seems to be that ‘language’ for a learner includes various aspects of ‘communicative competence’. These include various competencies such as linguistic competence, discourse competence (longer texts and interactions), pragmatic competence (ability to use language to convey and interpret meanings in real situations), sociolinguistic competence (knowledge of how to use language appropriately in social situations) and sociocultural competence (awareness of background knowledge and cultural assumptions which affect meanings and may cause interferences in intercultural communication) (CEFR 2001; Littlewood 2006:503).

From the linguistics perspective, the term communication is widely used and vaguely referred to in many contexts, as in the ‘communicative language teaching’ familiar to language teaching professionals. It has a number of bona fide interpretations which will not be discussed here. Fiske quips that “communication is one of those human activities that everyone recognizes but few can define satisfactorily” (Fiske 1990:1). Let us therefore make an effort to describe some of the contextual and socio-cultural characteristics of communication that are essential within the context of LCPP.

Communication is a *medium* of group interaction and therefore a channel for the effects of various factors on group decision making and outcomes. Communication can be *constitutive* in the ways that it interacts with the environment and functions as a means for *creating social reality* in which decisions can be made (Hirokawa et al. 2004).

Communication occurs at workplaces, which are “social institutions where resources are produced and regulated, problems are solved, identities are played out and professional knowledge is constituted” (Sarangi & Roberts 1999:1). In this sociocultural view “workplaces are held together by communicative practices” (Ibid.:1). Thus LCPP is not a static research objective, but a highly dynamic phenomenon occurring in professional communities, influenced by several macro factors.

The context of business and industry exemplifies the *utilitarian discourse system* (Scollon & Scollon 2001), where language and communication serve the purposes of global business and industry. Participants hold a *common ideological position* that defines them as a group with historical, social and ideological characteristics (ideology). Socialization is accomplished through preferred *forms of discourse* (socialization), which bring *membership and identity* (forms of discourse). Face relationships are prescribed for discourse among members or between members and outsiders (*face systems*) in preferred or assumed human relationships (Ibid: 110). Cicourel (1992) argues that language communication and social practices are interwoven and cannot really be separated:

> If we do not invoke institutional and local socio-cultural details with which to identify the participants in conversation, the analysis of meaning becomes almost impossible. Language and social practices are interdependent. Knowing something about the ethnographic setting, the perception of and characteristics attributed to others, and broader and local social organisational conditions becomes imperative for an understanding of linguistic and non-linguistic aspects of communicative events. (Cicourel 1992)

Thus, knowledge of the *institutional and local socio-culture* is necessary for understanding the goals and objectives of *communicative events* in the workplace. Discourse practice differs between *social domains* (mobile communications, banking, law), each of which has its own *discursive practice* associated with a particular social domain or institution (Foucault 1982; Candlin 2005, 2006). *Crucial sites* are locations where the communication takes place. *Critical moments* occur *in crucial sites* (Candlin 1987) where the professional must succeed to perform well on the job. Some of the critical moments are conducted in the native language, some in L2; some situations may be a mix of several languages. Language and the social activities involved are interdependent, so that the domain and institution frame the *ethnographic scene* for the communication.

What makes communication challenging to master is that it involves constant change, as Fairclough argues:

> Discursive practices may be relatively strongly or weakly demarcated – they may be various sorts of relationships… they may be in a complementary sort of relationship.. and may be in relations of opposition… boundaries of orders of discourse are constantly shifting, and change in orders of discourse is itself part of socio-cultural change. (Fairclough 1995)

The messages conveyed in communication incorporate *meanings*, the focus of study of the semiotic schools, where signs are used by a signifier (de Saussure 1959). But communication can be more than just text (*verbal*); it may incorporate *non-verbal* elements such as tone of voice, gestures, use of space, clothing, tacit knowledge and behavior, which are less centrally seen as part of English for Specific Purposes. In communication, *interlocutors* possess communication skills, which, in the linguistic tradition, have been classified into listening, reading, speaking, writing and mediation (CEFR 2001); however, in a *professional setting* they seldom occur separately, but rather as integrated clusters of subskills and clusters of source data in meaningful sequences. In Candlin & Maley's words:

> Discourses are made internally viable by the incorporation of… intertextual and interdiscursive elements. Such evolving discourses are thus intertextual in that they manifests a plurality of text sources. However, insofar as any characteristics text evokes a particular discoursal value, in that it is associated with some institutional and social meaning, such evolving discourses are at the same time interdiscoursive. (Candlin & Maley 1997:203)

National, cultural and subcultural factors influence communication in many ways. Therefore *interferences* and *barriers* (Hagen 1999) are essentially part of communication. Interferences may relate for example to *intercultural factors* or to features such as social status, noise, gender, age, education, power or strategy (Huhta 2002a:19-31). Specific fields of communication such as managerial communication, business communication, and technical communication have established their own specific practices and research communities with their own journals (e.g. JBC - Journal of Business Communication; Managerial Communication; JBTC - Journal of Technical and Business Communication) and publications.

The latter part of the concept of LCPP is that of Professional Purposes. In the professional context, communication serves numerous purposes. Poole and Hirokawa identify six of them: *social information processing* (1) combining existing information, generating new information, elaborating and combining information elements. Professionals communicate *analytical functions* (2) such as analysis of circumstances and contingencies surrounding choice making situations. Many workplace communications relate to maintaining systems, establishing rules for arriving at a decision. These are called *procedural functions* (3). Communication may also deal with *goal-related functions* (4) establishing group goals and values or monitoring them. S*ynergistic functions* (5) of coordination and motivation occur in management situations. *Rhetorical functions* (6) such as persuasion, social influence and leadership are used for example in the discourse of a job interview or negotiation (Hirokawa & Poole 2004:12).

According to Boswood, professional communication involves two things: communicating *as a professional* and communicating *to a professional standard*. The expertise of a professional involves *mastery of a body of knowledge, mastery of skills* and *the responsible use of this knowledge and these skills* – i.e. understanding of, and commitment to, professional ethics (Boswood 1999:4-6). Boswood details his definition with nine propositions describing professional discourse. A professional *applies the body of knowledge (1)* by exercising a range of skills in an ethical manner. A professional is able to communicate *within and across discourse boundaries (2)* and to reflect critically on the *workings of power* through discourse *(3)*. A professional has *access to the technical, contextual and world knowledge*

(4) necessary for communication within the communities concerned. A professional *creatively uses* the communicative resources of discourse communities to *a standard that is recognized as exemplary (5)*. A professional applies knowledge and skills in accordance with *codes of conduct* which are *recognized as ethical* by communities *(6)* and is effective in *reconciling and achieving multi-level purposes* through communication *(7)*. Additionally, a professional can manage internal and external organizational communication by *defining and implementing communication policy (8)* and seeks to develop himself/herself through *active reflection on performance (9)* (Boswood 1999:8-23).

The goal-oriented propositions about professional communication are less relevant for us regarding the debate over general/specific but more relevant regarding discourse communities, their objectives and communication needs – to be approached in the above professional manner though professional communication, which will be addressed in the needs analyses.

Communicative events play a central role in LCPP. A communicative event can be defined as

> a unified set of components throughout, beginning with the same general purpose of communication, the same general topic, and involving the same participants, generally using the same language variety, maintaining the same tone or key and the same rules for interaction, in the same setting. (Saville-Troike 1989:27)

Candlin proposes an outline for interdiscursive practice at the workplace with the text perspective (micro) and social/institutional perspective (macro) placed top to bottom and the social action perspective (macro) to participant perspective (micro) placed left to right in figure 6. He shows that discursive practice is located in the center where all four perspectives intersect (Candlin 2005: outline of the ontology), with major sections intersecting as interdiscursive practice.

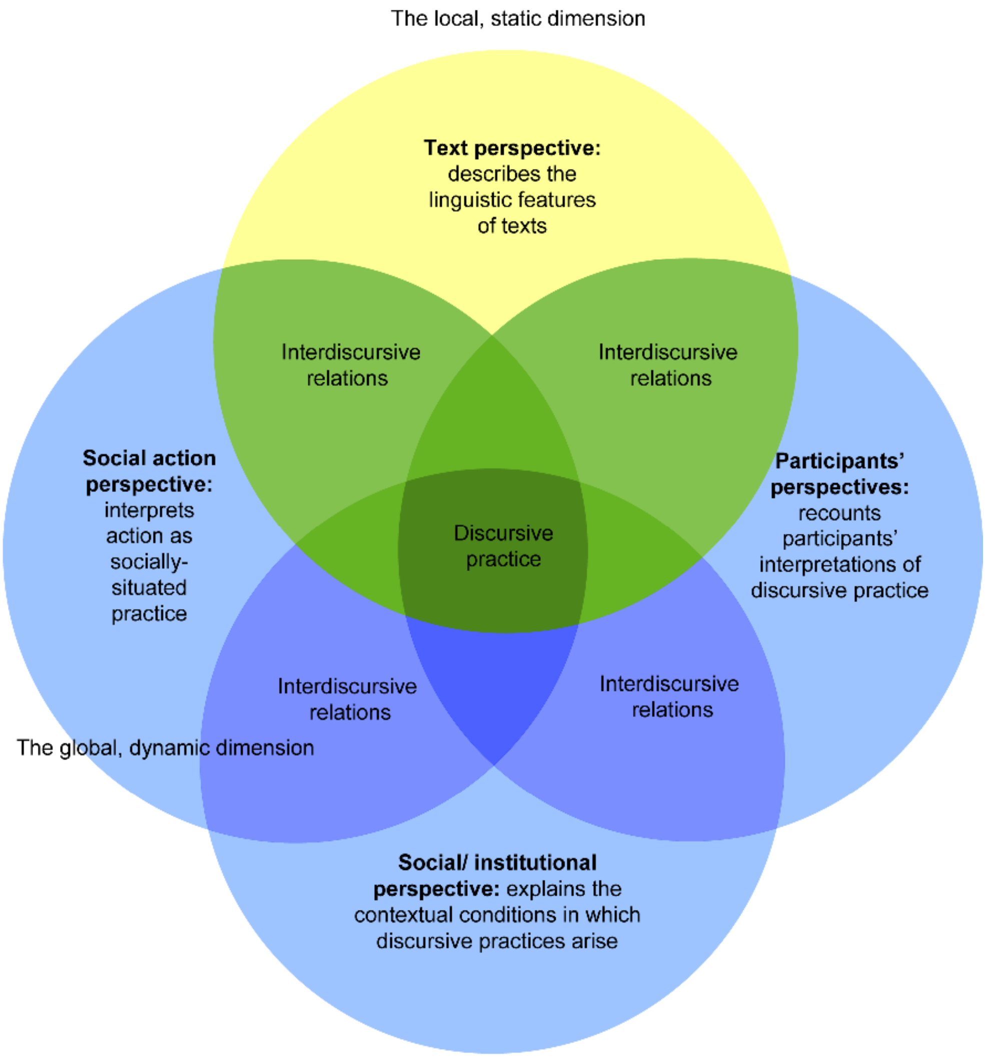

Figure 6. Outline of the ontology of interdiscursive practice (Candlin 2005).

Candlin (2005) differentiates between two vital aspects of communication, the local, static dimension, and the global, dynamic dimension on the horizontal axis in the model. Linguistics concentrates on the top central circle of the texts, the static perspective illustrated at the top of figure 6, and the research focus is on texts and their elements. LC needs are also part of the social action of the socially situated practice, the circle on the left. This is a dynamic, changing aspect, and therefore more difficult to analyze that static texts. Communication for professional purposes occurs in social institutions; therefore the contextual conditions of communication are essential of the social action. The fourth perspective, the participant's perspective on the right hand side, recounts the speaker's interpretations of discursive practice in the institution, in the social context and hierarchy, with the textual and competence knowledge available for the participant.

The flower petals of Candlin's illustration represent interdiscursive relations with other professionals in the domain - engineers, business specialists, researchers, managers at a working unit. The discourse of the domain, according to Candlin, requires knowledge of discursive practices and preferred forms of discourse. In business and industry the value system deals with the norms of the utilitarian value system (Scollon &Scollon 1995) Discursive practice – in the centre of figure 6 – can sometimes be profession-specific, such as one mechanical engineer to another mechanical engineer, but frequently communication involves encounters with a number of professionals in interdiscursive relations and discourse practice. All in all, the system is characterized by constant change and dynamism. From these characteristics of Language and Communication for Professional Purposes we can progress to dedifing language needs analyses and relevant language needs analysis practice.

2.4 Needs Analysis Practice

Needs analysis is specifically used as an aid for teaching languages for specific purposes or for analysis of language needs for shaping national or local language policy. Needs analyses can be used for (i) innovating and improving foreign language curricula in education, (ii) determining foreign language teaching objectives with respect to in-company LT, (iii) developing in-company LT programs, (iv) drawing up national policy for foreign languages, and (v) initiating the link between foreign language skills and trading performance needs and initiating research in this field (van Hest & Oud-de Glas 1990:21).

Overview of needs analysis practice

Needs analysis emerged in the 1960s (Koster 2004; Vogt & Johnson forthcoming) and was adopted by the ESP movement when the demand for specialized language programs expanded, according to Vogt and Johnson, in the seventies according to some other researchers (Richterich 1973/1980). Needs analysis has evolved over the years and has become a sophisticated undertaking (Vogt & Johnson forthcoming). In Finland, the first needs analyses were conducted in the 1970s as internationalization began to open doors abroad and languages became an important issue in business and industry.

The main use of needs analyses in the ESP tradition relates to "a necessary step to be taken before developing an ESP course, the idea being that it is important to design a foreign language course which is relevant and as efficient as possible for the target group" (Koster 2004b:5). But in a broader linguistic context, needs analysis has been used for very general purposes to gain "information both on the individual and groups of individuals who are to learn a new language and on the use which they are expected to make of it when they have learnt it" (Richterich 1983:2) or simply as "a procedure for establishing the specific needs for learners" (Ellis 2003:345-346).

From an educational perspective, Brown argues that "needs analysis is the systematic collection and analysis of all subjective and objective information necessary to define and validate defensible curriculum purposes that satisfy the language learning requirements of students within the context of the particular institutions that influence the learning and teaching situation" (Brown 2006:102). This perspective emphasizes the utilization of the accumulated knowledge in curriculum design. Applied linguists have also made the point that language needs can appear as explicit, i.e. articulated, or implicit, as language needs may go unrecognized (Robson 1990:184fn). I will later analyze and discuss what questions can be expected to be answered in NAs and which questions do not belong to the sphere of a person's explicit knowledge.

Following the utilization perspective, Hyland states that needs analysis can be taken as a form of educational technology that utilizes various methodologies before, during and after a language course (Hyland 2003:58-9). Thus the findings of NAs can be evaluated before, during and after a course which is built on a needs analysis. However, accounts of this kind of systematic monitoring activity have not been available.

Concept of Language Need

The concept of 'need' in relation to language needs is an elusive concept and must be defined before any operationalization about foreign language needs can be made (van Hest & Oud-de Glas 1990:10). The following points must be addressed: Whose need are we discussing when we discuss language needs (subject)? Do we mean needs at the level of an individual (user) or professional (requirer) or perhaps both (the user and the requirer)? What, ontologically speaking, do we include or exclude in the understanding of the contents of the need in business and industry (object)? Does it relate to the use of the foreign language now or in the future? What focus do we choose to evaluate in the object of need: which foreign language/s, which situational/functional activities, which competences, which sociocultural contexts or which linguistic subskills, or perhaps something else? The choice made here reflects the values of learning and evaluating of language competence of the needs analyst and also how the results will be utilized later on. Another way of looking at the object of need is to construe that there are lacks of foreign language competence that need fixing. Thus the analysis would need to focus on identifying competence gaps. A further way of looking at the object of need may be to focus on 'key assets' such as a key to new markets or opportunities. According to van Hest & Oud-de Glas, needs analyses relate to the subject of needs (requirers/users), the character of need (use, lack, key asset) and the object of needs (language, skills situations and possibly linguistic content) (Ibid.:13).

Mountford sees three sets of methodological problems in relation to needs analysis: (i) the problem of perception, (ii) the problem of principle and (iii) the problem of practice (Mountford 1981:28). This has not changed over time. The problem of perception as to whose needs are in question will be discussed in this section, as well as the problem of principle dealing with what elements the needs analysis should include and exclude as relevant content (Section 2.6). The problem of practice, i.e. how the language needs analysis is undertaken and applied, is described in the light of existing knowledge in Section 2.4., and the empirical data in Section 5.

Dudley-Evans and St.John (2002, 1998) agree that there is a plethora of conceptions concerning needs and needs analysis. Needs can be described as subjective or objective (Brindley 1984:65), perceived or felt (Berwick 1989:55). Needs can relate to a target situation or goal situation, and the learning can be seen as process-oriented or product-oriented (Brindley 1984:63). Moreover, the concepts of necessities, wants and lacks are also mentioned (Hutcheson & Waters 1987:55) in the process of identifying language needs. Vandermeeren subdivides the language need into four categories: subjective need, unconscious need, subjective unmet need and objective unmet need (Vandermeeren 2005:163). A subjective need is where an employee feels the need for a FL but has not (yet) been faced with a real work situation where the FL is needed. If a manager claims that the department does not need a foreign language yet some people at the department deal with customers speaking that language, the need can be seen as an unconscious need. Secretaries' reports of difficulties they encounter when using a foreign language are symptoms of subjective unmet needs. An objective unmet need is identified if a company enters a new market and does not have any speakers of that language.

We have seen that the concept of 'need' is problematic, but however problematic in nature, it cannot be replaced or substituted by another, better defined concept, as the ESP practice community has been using it since the 1960s and it seems to function well for many purposes.

At a more detailed level, the content of needs analysis can be deduced using the components derived from the above understandings of 'need' as summarized by Dudley-Evans & St. John (1998):

A. professional information about the learners – target situation analysis (TSA) (Richterich & Chancerel 1977; Munby 1979) and objective needs

B. personal information about the learners – factors that may influence their learning such as learning experience, cultural information – wants, means, subjective needs

C. target language information about the learners – present situation analysis (PSA), which allows the analyst to assess

D. the learner's lacks: gap between (C) and (A).

E. language learning information, how to learn effectively – learning needs

F. professional communication information about A: linguistic analysis, discourse analysis, genre analysis

G. what participants want from the course – learner preferences

H. information about the environment in which the course will be run – means analysis (Dudley-Evans& St.John 1998:125)

To add another element of complexity to the concept of need, objective needs are more than the target situation analysis described above. Objective needs also derive from the needs of the company, the professional field and the societal situation. As an example of an objective need stemming from a societal situation we might mention a demand for French in professions where directives and standards are negotiated with EU authorities and working groups.

The perspective of learners might also focus on the experienced relevance of language studies, the student's individual language needs or expected workplace needs by individuals. Comprehensive studies on the relevance of language programs have been conducted for example for secondary school (Nikki 1992) and vocational secondary education (Nikki 1993) and from the point of view of municipal school administrators (Nikki 1989). The focus of these studies is relevance for the individual user. This study focuses on the relevance for companies (requirers), institutions and discourse communities within business and industry (object) and how needs analyses conducted in industry and business can convey this knowledge (methods).

Informants Communicating Language Needs

"Whoever determines needs largely determines which needs are determined." (Chambers 1980:27)

The decision whom to consult when exploring learner needs – Mountford's problem of principle (1981) – is critical. It is common to take learners as the primary source of information, asking them what it is in fact that they wish to learn (Ellis & Sinclair 1989; Auerbach & Burgess 1985). According to Long, learners do not necessarily constitute a reliable source, the best source, or the only legitimate source (Long 2005a:26). Additionally, Long questions the sufficiency of language learners as sources of information, since need is a complex and sensitive issue. They may be 'pre-experience' or 'pre-service' with little understanding of what will be expected of them.

With very few exceptions (such as Van Els & Oud-de Glas 1983; Van Hest & Oud-de Glas 1990), reviews of L2 NA literature (e.g. Berwick 1989; Brindley 1984) make little or no reference to research in the methodology of needs analysis itself for the simple reason that hardly any such research has been conducted (Long 2005a:20-21). While experienced 'in-service' informants, professionals working in expert positions, are often excellent sources on the contents of their job, they are often inadequate when it comes to intuitions about their language needs. Long argues that there are other sources more readily accessible and better applicable than the learners themselves. These would be experienced language teachers, graduates of the program concerned, employers, subject-area specialists and written sources in the field (Long 2005a:27).

Another group of informants who may be of use as sources of needs analysis information are applied linguists, who may examine linguistic features, discourse or genres of texts. According to Long "it is absurd to expect applied linguists to know much, if anything, about work in a specialist domain in which they have no training or experience" (Long 2005a:27). Robinson refers to the university setting in Britain and points out that language centre lecturers may be familiar with the cultural norms and educational practices of the country but are still outsiders as regards the disciplinary cultures of various university departments, being (most usually) trained in literature and applied linguistics, not in natural sciences (Robinson 1991:11). It is quite possible, however, for the applied linguist to gain such credibility in the company social setting as to be allowed to participate as an insider to observe negotiations (Charles 1996), meetings (Bargiela.Chiappini & Harri 2007), teamwork and humor (Vuorela 2005), internal email or fax exchanges (Kankaanranta 2005) or information exchange (Ahvenainen 2005). Not that this participation in internal affairs would make an applied linguist a domain expert, but he/she would be recognized as a professional trusted to undertake an analysis in an insider role and to evaluate internal communication practice.

Those who do know the needed communication at the workplace are the domain experts who operate in the relevant language at work. Tarone et al. (1981) consider the importance of expert insider knowledge in the analysis of the rhetorical structure of specialist texts. In their view the subject specialist's knowledge of the subject matter was absolutely essential to their analysis of the rhetorical structure of these papers. When it comes to language, however, their inference is very different. With some exceptions (Tarone et al. 1981), most domain experts have proved unreliable when asked about their language needs, not just at the detailed linguistic level but also where higher discourse events are concerned (Tarone et al. 1981:125, fn. 2). Selinker (1988) uses the term Subject Specialist Informants (SSIs) for a similar conception as domain experts. This term is perhaps better suited for subject specialists in educational institutions, whereas domain experts could mainly be members of the target workplace community. To avoid bias in understanding understanding LC needs, multiple groups of informants need to be examined; needs analysts should obtain information from a range of sources and viewpoints (Robinson 1991:12).

To sum up the discussion on language needs, the informants communicating about the language and communication needs of learners can be learners themselves, in-service informants, teachers, graduates of the program concerned, employers (managers, foremen, and HR departments), and written sources in the field, domain experts, and applied linguists. Language needs have been analyzed in Finland since 1970's as will be seen in the next subsection.

2.5 History of Needs Analysis in Industry and Business in Finland

This subsection reviews the use of needs analysis methods for ESP/LSP purposes in business and industry in Finland. I choose to examine Finland separately first because location and context seems to have a significant impact on language needs analysis practice and contents. Figure 7 shows needs analyses conducted in business and industry in Finland since the 1970s. The focus is limited to major needs analyses that serve the needs of business and industry (graduate studies are excluded). The details of needs analysis methodologies will be discussed further in Section 2.6 as we widen the scope of needs analysis practice to the European context.

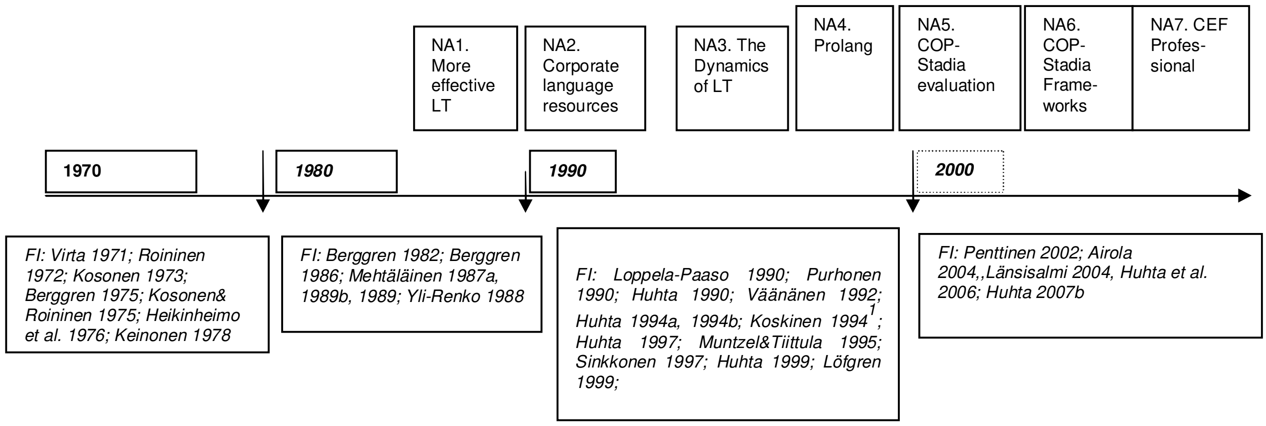

Figure 7. A review of language needs analyses for industry and business in Finland.

Figure 7 timeline shows major needs analyses in business and industry below the timeline and the needs analysis (NA) data of this study above the timeline. A direct need for languages was identified in Finland in the 1970s. The first needs analyses were conducted Department of Sociology of the University of Turku in South-Western Finland. Virta (1971) arranged a survey on the role of languages in South-Western Finland's economic structure concerning Swedish, English and German. She focused not only on the need but also on the current language level and employer requirements. Roininen (1972) addressed a survey to the top management of industry, trade and selected services using a corporate register and received about 400 replies. Companies reported language needs as follows: 83% Swedish, 73% English, 64% German, 14% Russian and 12% French. Roininen's report indicates that supply meets demand best in Swedish. Industrial supply of language resources was identified as insufficient. A year later Kosonen, also from

University of Turku, focused on recruitment advertisements and how the role of languages was expressed in them (Kosonen 1973). Kosonen and Roininen conducted another needs analysis focusing on the service sector in 1975. Some needs analyses have focused on one language alone: for example, Heikinheimo et al. studied the employment of those with Russian skills in business and administration (1976). Basically, the demands in Russian were described as high. The supply of Russian met the demand fairly well at the management and specialist level, but more Russian speakers would have been needed in technical and sales positions. Employment perspectives were seen as positive if language skills were combined with a commercial education. In a needs analysis by Berggren (1975), the focus was on the use of and need for languages in engineering professions and impressions of engineers regarding the contents of language teaching in engineering education at universities.

A series of seven interviews with Finnish companies conducted by Vientikoulutussäätiö (Finnish Export Institute) revealed the language resource situation at the end of the 1970s (Keinonen 1978). Keinonen, one of the interviewers, identified an extensive need for language training. The major problems from the point of view of a training organization were that ‘salesmen’ did not have time and did not see a need for training. Export secretaries found it hard to receive permission to participate, since good language skills were a criterion for them being recruited in the first place. Top management used private lessons to economize on time. Technical and design personnel needed technical terminology but did not wish to study it. Courses focused on technical terminology were hard to arrange, as the area of terminology was wide. Instead, technical and design personnel with their often acute need wished to study general and commercial language, which they felt was enough. The inference Keinonen made in 1978 for the organization of language training focused on six points: 1) concentrate on the main languages – English, German, Swedish – though there was also a need for French, Russian and other languages, and tailor the training to 2) the target groups of export sales personnel, technical and design personnel. The training should be implemented as 3) small group teaching where 4) the teacher competence level was high. Finally, 5) the courses had to be focused on business and export and 6) an oral skills seminar had to be arranged for export secretaries (Keinonen 1978).

Needs analysis work continued in the 1980s with Berggren, who compared the results of needs analyses to the objectives of language education at technical universities (Berggren 1982). In 1986 he produced a Language Trainer’s Handbook, highlighting targeted language training in collaboration with corporate Human Resources personnel (Berggren 1986).

Mehtäläinen conducted a series of needs analyses in the 1980s, two of which related to business and industry. The earlier one focused on industrial employees, with a sample of 5,000 industrial employees and a response rate of 65%. The 3,094 respondents were from the metal, forest, construction, textile and other industries (Mehtäläinen 1987:5). The later one focused on trade, with a sample of 3,500 respondents from wholesalers and department stores. The main staff groups studied were management, administration, marketing and purchases (Mehtäläinen 1989:2-3).

In the 1990s, the focus of business and industrial needs analyses has been on corporate language resources. Purhonen (1990) focused on internationalization in corporate personnel training, including language needs. Huhta discussed language needs in relation to effective language training (1990) and corporate language resources in large companies (1994). Koskinen (1994) focused on language resources in small and medium-sized companies (SMEs). Münzel & Tiittula studied German communication in the German-Finnish trade, where German was the oral interaction language in the 1990s. They recommended that written communication should also feature in the curricula of universities of business and technology. Much attention was given in the 1980s to languages in engineering education. Loppela & Paaso (1990) examined English as a tool of university level engineers. They found their subjects to be relatively proficient in reading but identified weaknesses in writing, vocabulary and oral skills. Väänänen (1992) examined the experiences of English language use among secondary level mechanical engineers in Central Finland, identifying oral skills, specialist terminology and telephone calls as the most challenging areas in their use of English.

Helle (1995) examined the attitudes to language learning of business students. Language education was experienced by students as being more about eliminating errors than about communicative activity. In the writing of demanding texts, the students often resorted to using professional writers. Students as well as employees felt that languages were significant for a career in business. Students considered that more attention should be paid to increasing language confidence in the education of university level engineers.

Sinkkonen (1997) provided the first review of needs analyses in Finland. Huhta (1999) coordinated a needs analysis of 69 companies nationwide, consisting of a questionnaire survey of 200 employees and an interview with each language training organizer in the same companies, implemented by 21 language teachers. The results concern the current and future need of languages, relevant communication situations in employee professions and evaluation of both general and future language needs. Oral skills were identified as the least attended component of language teaching in both general and vocational language education.

In the present millennium, needs analyses have been conducted for special areas of language need such as the geographical area of North Karelia (Airola 2004) and the language needs of business students (Penttinen 2002). Länsisalmi has examined the need for Japanese language skills in higher education (2004). The needs analysis of Karjalainen & Lehtonen (2005) must also be mentioned, though it does not fall within the field of business and industry. This needs analysis is, however, the first language needs analysis that science universities have conducted in the area of academic language skills taking both the employee and employer perspectives into account as in Prolang, a needs analysis (NA4) for the professional and vocational sector in 1999 (Huhta 1999).. Karjalainen & Lehtonen use the term 'academic professions', referring to positions where a university degree is a requirement (Karjalainen & Lehtonen 2005:11). The employer sample of 19 interviews in the study represented institutions of higher education, government authorities or similar agencies, municipalities, congregations, associations and foundations. The fields of the seven private sector employers included are law (1), pharmacy (1), publishing (1), public broadcasting (1), insurance (1) and the paper industry (2). Language needs were identified greatest in the private sector (Karjalainen & Lehtonen 2005:11). Horppu and Niskanen (2004) argue that university language centers need to become more aware of language needs at workplaces. Karjalainen & Lehtonen argue that university language centers should consciously maintain workplace contacts, since language centers do not have students of their own (Horppu & Niskanen 2004:172).

Finally, needs analyses in Finland are shifting in character, from issues concerning priority of language to issues concerning communication situations and the details of the object of needs: what is communicated in business and industry, to what end and how. The most recent needs analyses address these issues of the object of language needs (Huhta et al. 2006; Huhta 2007b).

Language needs analyses conducted in the business and industrial context in Finland have provided information about the increasing needs of languages, their proportional importance, and predictions about the development of future needs. The main methods used have been questionnaire surveys and interviews. The motives for the needs analyses have been several. Some have aimed to impact the language service offering of language training organizations (Keinonen 1979; Huhta 1990; Huhta 1994; Koskinen 1994), others have aimed to improve university language education content (Berggren 1982; 1986) or university of applied science language teaching or services (Penttinen 2002; Airola 2004; Huhta et al 2006; Huhta 2007) and some have aimed to influence the national language policy or national language curriculum (Pinar et al 2004; Roininen 1972; Kosonen& Roininen 1975; Mehtäläinen 1987a, 1989b; Huhta 1999).

A fair number of language needs analyses have been conducted in Finland fto shed light on domain-specific, local and national language needs. We will now expand the focus to analyses that have been made in the European context.

2.6 Needs Analysis Methods in Europe

This subsection discusses the needs analysis methods used in Europe as a vital context for Finland, influencing policy trends in the country. The US context is not included as their one-official-language context has resulted in less interest in language needs analysis practice.

The instruments of needs analysis are often devised by teachers or applied linguists with limited expertise in research methods, with little or no insider knowledge of the field, and with the learners themselves as the primary or sometimes the only respondents (see Alaloy 2001; Long 2005). Needs analysis instruments examine different aspects of language need. The growing demands of accountability in public life have increased dissatisfaction with lessons, materials and methodology developed for no-one in particular (Long 2005). Therefore SLA educators have responded to the demand by basing more of their courses on the findings of learner needs, collected by a variety of methods. Figure 8 complements the Finnish needs analyses discussed above with other European needs analyses.

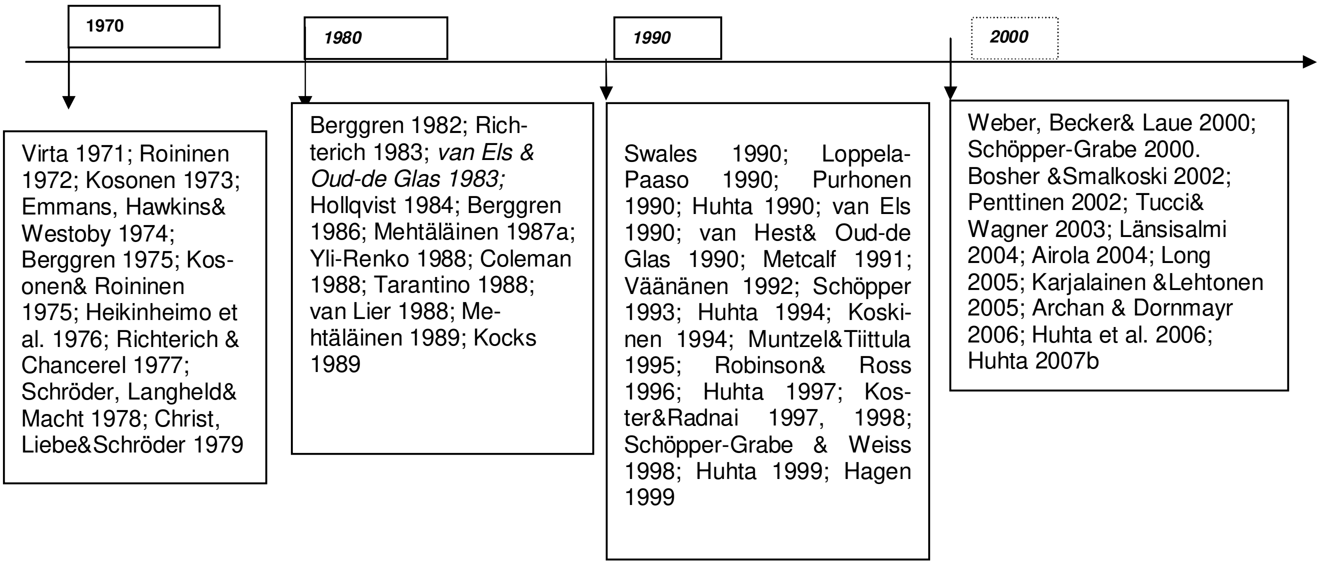

Figure 8. Selection of language needs analyses in the European context.

The timeline of figure 8 shows needs analysis studies conducted in the European context, added on the studies mentioned for the Finnish context in figure 7.

Some of the needs analysis relate directly to business and industrial target groups. These studies include the studies directly targeted to business and industrial target groups. They include the studies of Virta 1971; Roininen 1972; Kosonen 1973; Emmans, Hawkins& Westoby 1974; Berggren 1985; Schröder, Langheld& Macht 1978; Christ, Jäger, Liebe & Schröder 1979; Hollqvist 1984; Coleman 1988; Tarantino et al 1988; Kocks 1989; van Hest& Oud-de Glas 1990; Huhta 1990, 1994; Koskinen 1994; Metcalf 1991; Schöpper 1993; Watts 1994; Muntzel&Tiittula 1995; Huhta 1997; Schöpper-Grabe & Weiss 1998; Weber, Becker& Laue 2000 and Schöpper-Grabe 2000.

Some studies analyze needs of adults more broadly, such as Richterich & Chancerel 1977 and Richterich 1983. Some of the needs analyses of figure 8 examine needs from the perspective of educational contexts. These include the studies of van Els & Oud-de Glas 1983; Berggren 1986; van Lier 1988; Robinson& Ross 1996; Koster&Radnai 1997, 1998; Bosher &Smalkoski 2002; Penttinen 2002; Wagner 2003; Airola 2004; Karjalainen &Lehtonen 2005; Archan & Dornmayr 2006; Huhta et al. 2006 and Huhta 2007.

Categories of needs analysis methods in existing literature

The types of needs analysis in the existing literature will now be reviewed in needs analysis categories suggested by Long (2005:31-32) as Long's classification is to my knowledge the only comprehensive classification of language needs analysis methods. Existing needs analysis methods (M) are now defined, described and exemplified. The relevant methods of Long's categorization include M1 non-expert intuitions, M2 expert practitioner intuitions, M3 unstructured interviews, M4 structured interviews, M5 surveys, M6 language audits, M7 ethnographic methods, M8 participant observation, M9 non-participant observation, M10 diaries, journals, M11 content analysis, M12 discourse analysis, M13 rhetorical analysis/register, M14 computer-aided corpus analysis, M15 genre analysis, M16 task-based, criterion-referenced performance tests and M17 triangulated methods. The following literature review describes how the methods are used and some of their advantages and limitations for needs analysis based on existing knowledge.

2.6.1 Non-expert and expert intuitions

When speaking of expert intuition (M2), an 'expert practitioner' is defined as a domain expert or a language teacher who is a trained LCPP educator and who has gone out of his or her disciplinary area to accumulate a knowledge base of language and communication in the workplace community in the field from the group of professional experts to be taught. This can be gained by learning from subject specialist teachers or more experienced language colleagues, visiting firms, making observations, listening carefully to the in-service adult learners – and conducting needs analyses with key groups and thus collecting material on professional communication.

Intuitions by expert language teachers or expert domain experts are estimates of what LC needs language learners might have and how these needs might be met through curriculum design and pedagogical content in the context of ESP in situations where no other knowledge is available. These intuitive apprehensions can be then implemented in classroom practice, and as a result, they may or may not be successful.

This case is a realistic, common and relevant scenario for ESP teachers assigned to teach a group of specialist learners at short notice. Intuitions are especially important in applying the curriculum and deciding on classroom activities that stimulate language learners to take initiative, perform well and gain confidence in being effective communicators in a professional setting.

If NAs are based on non-expert intuitions, which simply means that a teacher relies on his/her own conceptions of the field instead of 'evidence-based inquiry' (Vogt & Johnson forthcoming), the consequences of such guesswork impact language learning in harmful ways. The teacher may be teaching irrelevant knowledge, language and communication that is marginal for the learners' needs, and contexts that are remotely or not at all linked to the LCPP in the field. Motivation suffers, learning is slower, the learner's self confidence weakens and learning becomes unattractive. But as Long (2005) points out, "non-expert intuitions about language use remain the stock in trade for many textbook writers, despite [being] notoriously unreliable". Besides, as Auerbach & Burgess point out, the materials produced through the guesswork model feature oversimplified language, inauthentic communicative structures and unrealistic situational content (Auerbach & Burgess 1985:478-490). According to Long, "numerous (most?) LPS textbooks" are based on non-expert intuitions (2005:31), which nevertheless may be insufficient for relevant course design and pedagogical choices.

Bhatia (1993) suggests that specialist informants should be competent and trained specialists of the disciplinary culture where the genre is being used. He/she should have a feel for specialist language and be prepared to talk about it openly. He/she should be in a position to explain clearly what expert members of the disciplinary culture do when they exploit language in order to accomplish generic goals (Ibid.:35-36). These conditions are optimal and recommendable, but in practice domain expert input is seldom optimal and, because domain experts are content oriented rather than linguistic and discourse analytical, an applied linguist's observation and judgment of the discourse may be better placed than that of domain expert. Therefore, both experts are needed: domain experts to cater for the correctness of communication objectives and content, and the applied linguistics expert to interpret the communication needs into curricula, activities and actual learning.

Expert practitioner intuition has been used for example in the context of language needs assessment for many of the NAs discussed in this study. This method will be evaluated in Section 5.1.

2.6.2 Interviews

Interviews are frequently used as needs analysis collection method in the above needs analyses of figure 8. Patton identifies four types of interview: informal, unstructured, semi structured and structured (Patton 1997) . Unstructured or open-ended interviews (M3) are used to allow for in-depth coverage of issues (Long 2005:36) that might be excluded from a structured interview, which has a predefined set of questions. If the needs analyst "does not know what she or he does not know and therefore must rely on the respondent to tell him or her" (Lincoln & Cuba 1985:269), an unstructured interview may be a viable methodological option for the needs analyst.

Interviews, both unstructured (M3) and structured (M4), are based on the assumption that the interviewee is directly or indirectly steered by questions or prompts in order to respond to the researcher's questions concerning language and communication needs. Therefore the contents items reported in the following section 2.6.4 for surveys can be very similar to the questions in a structured interview. However, there are certain features of interviews that are different from survey questions with written answers.

There are limits to the reliability and validity of interview findings, as discussed by Long (2005:35-37) and Vandermeeren (2005:166). A significant problem in gaining useful information through interviews is the level of awareness of interviewees of the issues inquired about. Cross-cultural differences of values, beliefs and knowledge base between the interviewer and the interviewee may limit the value of the findings. Appropriateness of issues such as age, religion or politics may influence the responses (Long 2005:36). If the interviewer/interviewee setup is a teacher-student relationship, reliability may be skewed by the students giving answers that they think teachers wish to hear rather than honest answers. Long suggests asking the same questions in different ways and unintentionally distorting the data by filtering the way the interviewers report or interpret the data. Many problems can be avoided simply by the needs analyst being aware of them (Ibid: 36).

Unstructured interviews have been used by Fixman in the context of the language needs of US-based corporations (1990), amongst many others, though not a European needs analysis. The interview method was used in the evaluated needs analysis methods of this study and will be evaluated in Section 5.2.

2.6.3 Surveys

In the context of language needs analyses surveys refer to questionnaire surveys and structured interviews are categorized as an interview method, though both belong to the survey method. Questionnaire surveys are the most widely used needs analysis method. Surveys can be defined as standardized information collected from a large group of individual observations in order to systematically compare observational units to one another. The data can be qualitative or quantitative, factual or interpretive; in language needs analyses, it is frequently quantitative. The data can be collected through pen-and-paper surveys, fully structured interviews or using existing databases. The object of the study can be an individual, group, organization or industry. The goal of the research can be to describe, build a theory or test a theory (Maxwell 1996). Survey information can also be collected using interview techniques, and thus the distinction between surveys and interviews can be rather fluid.

An examination of the above language needs surveys makes it clear that theoretical approaches to language needs analysis are scarce. The questions do not fall into clear categories, and with some of them it is difficult to identify why a certain question is being asked. In the following I consider the survey questions in detail, as this may help formulate better questions for future surveys.

Questionnaire surveys have typically included seven categories of questions: questions concerning respondent background (1), current language needs (2), quality of current language resources (3), strategies for coping with insufficient language skills (4), future language needs (5), questions to assist course tailoring (6) and potential language training (7). The following table summarizes types of questions for each category.

Table 3. Survey questions applied in ESP needs analysis practice.

Category of questions	*Focus*	*Source example*
1. Background questions	respondent's position, age, gender and educational background, person's language skills levels, native language, language background at levels of education	Mehtäläinen 1987, 1989; Koskinen 1994; Huhta 1997 1999; Airola 2004
	respondent's organizational function/position	Mehtäläinen 1987:66-67; Huhta 1997, 1999
	company, its field, number of personnel, educational background of employees	Huhta 1997, 1999
	products offered; how many years in business; turnover; age groups of staff	Hagen 1999
	sales abroad; turnover or major markets; percentage of purchases abroad; whether the firm is a subsidiary or a branch of a head office; where the head office is located; establishments overseas; trading with foreign countries; customers from foreign countries; joint ventures; significance and frequency of foreign operations	Metcalf 1991
2. Current language needs	number of languages needed	Schöpper-Grabe & Weiβ 1998:49
	the most important languages	Airola 2004; Huhta 1999; Koster & Radnai 1997
	which language the firm uses in doing business with a country	Koster & Radnai 1997
	the use of foreign languages	Weber, Becker & Laue 2000:52
	use of language by organizational functions such as sales, production or accounting units	Schöpper-Grabe & Weiβ 1998:51-54
	frequency of language use for different languages	Schöpper-Grabe & Weiβ 1998:40,45; Weber, Becker & Laue 2000; Mehtäläinen 1987, 1989
	how often the respondent has needed a foreign language in the past five years (actual need) and how often the respondent would have needed a language he/she does not know (potential need)	Mehtäläinen 1987:70

3. Quality of current language resources	self assessment (scale 1-6; scale 1-5)	Mehtäläinen 1987: 71-72; Huhta 1999
	strengths and weaknesses (conversation skills, fluency, oral presentations, pronunciation, listening, reading, writing, grammar, professional terminology and cultural awareness)	Huhta 1999; Airola 2004
	difficulties in the foreign language (oral skills, professional terminology, listening, reading, grammar, written communication, translation, interpretation)	Schöpper-Grabe & Weiß 1998: 99
	problems encountered using a (specific) foreign language in the suggested situations	Koster & Radnai 1997
4. Strategies for coping with insufficient language skills	sufficiency/insufficiency of language skills	Mehtäläinen 1987a, 1989; Huhta 1999
	to what extent lack of language skills is a barrier; which languages this concerns; the consequences of language needs that are not met as lost business, restricted pattern of trade, reduced profits, other problems or possibly no problems at all	Metcalf 1991
	specific situations where language is a barrier; lost business because of language barriers	Hagen 1999
	strategies for covering up language lacks (taking courses, asking colleagues, self study)	Schöpper-Grabe & Weiß 1998:76)
	ways of coping with problems (problems remaining unsolved, using an interpreter or a translation service, or some other method); consequences of avoiding any foreign markets because of language problems; how the language problems are solved when they occur (e.g. using a translator)	Koster & Radnai 1997:88
	concrete damage caused by insufficent language skills concrete benefits brought by language skills	Mehtäläinen 1987a:75 Mehtäläinen 1987b:71; 1989:51
5. Future language needs	prediction of the future of language needs (will grow, remain the same, decrease), also by field, education, age	Koster& Radnai 1997, Huhta 1999, Airola 2004
	any plans of beginning trade with non-English-speaking countries; which languages; countries, Situations plan	Hagen 1999
	predicted change of the respondent's language skills in 5 years (will increase/decrease/stay the same)	Huhta 1999: 179
	level of language skills now and five years from now (scale 1-5)	Huhta 1999: 181
	the ideal level of fluency required of various categories of staff and the current level; which level of fluency (fluent, intermediate, basic or none needed) is required of personnel categories (managers, professionals, sales or purchasing staff,	Metcalf 1991

	secretaries, receptionists and other employees)	
6. Questions to assist course tailoring	language or communication situations where the respondent needs languages	Berggren 1986, Metcalf 1991; Huhta 1999, Hagen 1999
	importance of communication situations (scale 0-3 on 18 communication situations))	Huhta 1999: 181
	greatest problems in language skills (oral communication, presentations, cultural understanding, speaking too few languages, language errors, professional terminology, reading comprehension, pace of reading and other problems	Huhta 1997:103
	strengths and weaknesses of language teaching in general education and vocational education	Huhta 1999: 148-52; Huhta 1999: 144-47
	frequency of situations	Mehtäläinen 1987:73
	subskills needed (reading, writing, listening speaking)	Airola 2004
	suffiency of mastery in each of 23 situations	Mehtäläinen 1989, Huhta 1999
	frequent work situations (place, people present, description of the course of events and what made the situation successful	Huhta 1999:182
	demanding work situations place, people present, description of the course of events and what made the situation demanding	Huhta 1999: 182
	Complexity of business discourses Importance of business discourses (scale 1-3)	Weber, Becker &Laue 2000:53-62
7. Question concerning language training	language training need; desired subskill to be learned	Mehtäläinen 1989
	desired course (preferred course type and length, purpose of course, target group, group size, study material, attendance, learning results, teacher and price)	Mehtäläinen 1989:51; Huhta 1997
	necessity of extra training in one or more languages	Koster & Radnai 1997
	language training offering detailed by company size, branch (e.g. fine mechanics/optics, electrical engineering, banking) the cost structure of language training per participant	Schöpper-Grabe & Weiβ1998: 65, 67, 80 Schöpper-Grabe & Weiβ1998: 91-93
	existing training program in languages; a need for increasing training provision in languages;nature of current language training (in-house (intensive/non-intensive), public sector (intensive/non-intensive) courses and private sector (intensive/non-intensive) courses);appropriateness of categories of training (range of languages, level, tailoring, quality and availability)	Metcalf 1991

Common descriptive background factors probed in needs analysis surveys include the respondent's position, age, gender and educational background. If the person's language skills levels are charted, these include his/her native language, language background at various school levels and to what extent they have been useful at work. The respondent's organizational function is also important. Questions about the workplace concern the company, its field, and its number of personnel and the educational background of the employees (Huhta 1997, 1999). Hagen (1999) also charts the products or services offered by the company, how many years the company has been in business and what its turnover is, and the age groups of staff in staff categories to identify the corporate context. Sales abroad, turnover or major markets may also be surveyed to establish the company's degree of internationalization. Some needs analyses inquire into the approximate percentage of purchases abroad and whether the firm is a subsidiary or a branch of a head office and if so, where the head office is located (Metcalf 1991). Background questions place the respondent in context in the company within the framework of the international activities of the company.

Questions on current language needs are many, as expressed in table 3. An overall question may simply inquire about current needs for foreign languages with a simple yes/no question (Airola 2004). In some needs analyses it is relevant to ask which language the firm uses in doing business with a country (Koster & Radnai 1997). The number of languages needed may also be asked about (Schöpper-Grabe & Weiβ 1998:49) as well as the use of foreign languages (Weber, Becker & Laue 2000:52). The general need can be identified more accurately by categorizing it into organizational functions such as for sales, production or accounting units (Schöpper-Grabe & Weiβ 1998:51-54). Many needs analyses direct attention to the frequency of language use for different languages (Schöpper-Grabe & Weiβ 1998:40,45; Weber, Becker & Laue 2000; Mehtäläinen 1987, 1989).

Many efforts have been made to estimate the current supply of language resources of staff, group 3 questions in table 3. Mehtäläinen ends up using self assessment of (oral and written) language skills on a scale of 1 – 6. This is followed up with an additional question to specify in which languages the respondent's language skills are insufficient (Mehtäläinen 1987:71, 72). Another way to estimate current language resources is to ask the respondents to evaluate their strengths and weaknesses in language skills such as conversation skills, fluency, oral presentations, pronunciation, listening, reading, writing, grammar, professional terminology and cultural awareness (Huhta 1999; Airola 2004). Some NAs inquire into difficulties in the foreign language (oral skills, professional terminology, listening, reading, grammar, written communication, translation, interpretation) (Schöpper-Grabe & Weiβ 1998:99) rather than addressing both strengths and weaknesses. This aspect may be formulated also as problems encountered using a (specific) foreign language in the suggested situations (Koster & Radnai 1997).

Many surveys are concerned with strategies of coping with insufficient language skills as shows in group 3 questions in table 3. The needs analyst may ask whether the company conducts business with a non-English-speaking country and whether the lack of language skills is a barrier to such business, and the priority of such languages (Metcalf 1991). The encountered language barriers may be specific to languages and to situations (Hagen 1999). British needs analyzers such as Hagen (1999) find out about the loss of business, with examples of how business was lost. Schöpper-Grabe & Weiβ take an interest in strategies used for covering up a language need, e.g. taking courses, asking colleagues or self study (Schöpper-Grabe & Weiß 1998:76). Metcalf classifies the consequences of language needs that are not met as lost business, restricted pattern of trade, reduced profits, other problems or possibly no problems at all (Metcalf 1991). Koster & Radnai take up ways of coping with problems such as the problems remaining unsolved, using an interpreter or a translation service, or some other method. They wish to know if there are consequences of avoiding any foreign markets because of language problems (Koster & Radnai 1997). The same NA also inquires how the language problems are solved when they occur, for instance by using a translator (Ibid: 88).

Future language needs can be asked identifying potential learning gaps, as questions summarized in table 3. Metcalf inquires whether the language needs are met for various categories of staff and what the nature of change for categories of staff might be. The provided options include: more employees with language skills, a wider range of languages, higher level of competence and none of the above. Metcalf seeks to discover the nature of change that affects the need for employees to speak foreign languages (Metcalf 1991). This kind of question can yield an overview of expected changes. NA survey questions reflect their day and age. Hagen inquires about plans to begin trading with new non-English-speaking countries and languages that would be required in the future, specifying both countries and situations (1999). In today's global business with its international networks, such questions could hardly be given a one-line or two-line answer. Personal learning gaps can be asked by requesting the respondent to assess her language skills now and five years from now on a scale of 0-5 (Huhta 1999: 181).

Some survey questions assist course tailoring, as summarized in group 6 of table 3. The selections of situations vary in NAs, but a frequently asked question in NAs concerns in which situations the respondent needs languages (Berggren 1986; Metcalf 1991; Huhta 1999; Hagen 1999). Some needs analysts add frequency (every week, a couple of times a month, a few times a year) (Mehtäläinen 1987:73). To get more detailed information about communication, Huhta asks the respondent to give an example of a common work situation and a demanding work situation, including the place, people present, description of the course of events and what made the situation successful/demanding (Huhta 1999:182). Weber, Becker & Laue approach the skills gap from a text discursive perspective. They inquire about the complexity of business discourses using a list of specified categories of written reading texts to monologue texts and discourses of interaction on a scale of 1-3. Another measurement of theirs is the importance of business discourses, assessed on a scale of 1-3 (Weber, Becker & Laue 2000:53-62).

Language training has been in focus in some needs analyses, as summarized in table 3. Koster & Radnai explore the necessity of extra training in one or more languages in a Hungarian context (Koster & Radnai 1997). Schöpper-Grabe & Weiβ take an interest in the type of language training offering detailed by company size (Schöpper-Grabe & Weiβ1998:67). They specify this further by categorizing by branch (e.g. fine mechanics/optics, electrical engineering, banking) the offering of internal or external language training out of all training (Ibid: 65, 80) to find out the magnitude of the language training operation. This leads to an understanding of the cost structure of language training per participant (Ibid: 91, 93). Exploring future prospects of language training, Metcalf asks about plans for increasing language training provision in the next five years (Metcalf 1991). Existing language training needs must be addressed very directly. Practical points of training location, length, time allotment, wishes for course activities may also be addressed (Airola 2004).

Some NA surveys take an interest in cultural awareness and cultural barriers, asking for instance about the respondent's experience of cultural barriers in business dealings and foreign countries. Hagen also expects a story to back up such an observation (Hagen 1999). Koster & Radnai are interested in collecting experiences of cross-cultural difficulties in dealing with foreign contacts (Koster & Radnai 1997). Airola inquires whether cultural awareness is a strength or weakness in a specified language (Airola 2004).

Questionnaire surveys have been used throughout the history of language needs analyses. Surveys are common in needs analysis research because of their many advantages: they are an inexpensive and quick way to gain current information, speedy to analyze and can yield both quantitative and qualitative data. Conversely, the data may be too cryptic to allow for depth of information and interpretation, the information may be less analytical, and it may be difficult to go back to the respondents to ask for more details. Patton (2002) and Berger (2000:190-191) discuss the advantages and disadvantages of surveys in more detail.

2.6.4 Language audits

Linguistic audit and language audit have been used as synonyms. The term 'linguistic audit' was first used by Pilbeam (1979) but did not become established until the early 1990s (Koster 2002:5). Pilbeam used the linguistic audit to plot the role played by a foreign language in a commercial or industrial enterprise. First, "the precise language skills needed to carry out specific jobs" are determined, thereby establishing "a target profile of language skills as part of job description" and thus "facilitating in selection of personnel for new positions". Secondly, the point was to "determine whether the individuals have a sufficient level in the relevant language to carry out their present or future jobs" (profile of present ability). The third point was to "determine the type and extent of an organization's future language training requirements" (Pilbeam 1979).

When the European Commission Language program Lingua (1990-1994) introduced the concept of language auditing in 1991, they added two more points to Pilbeam's definition, namely analyzing the elements in a company's overall strategy which induce foreign language skills, and locating departments and functions in which foreign languages are needed or will be needed in future to realize newly chosen objectives (van Hest & Oud-de Glas 1991). In a series of EU conferences, the language audit was extended to the concept of a language/communication audit on the basis that “companies should recognize the true value of language and cultural knowledge as essential tools for business in the marketplace. For companies involved in international trade, language and culture should be seen as just as much a part of a company’s operations as any other aspect of business life, and not treated as an optional extra.” (Webber 1997) The primary objective of a language or linguistic audit is “to help the management of firms to identify the strengths and weaknesses of their organization in terms of communication in foreign languages.” (Reeves & Wright 1996:5)

What, then, are the components of a language audit? According to Reeves & Wright, the linguistic audit starts from initiation of the audit with management and ends when the auditor reports on the results of the foreign language use and needs of employees. The report is seen to include an action plan, training needs analysis, recommendations and company-specific benefits (Reeves & Wright 1996:5-7). Koster (2004b) sees language audits slightly more broadly and includes the phase of collecting “data which enables a language school or a language trainer to develop a customized course for individual employees and/or for specified groups of employees” (Koster 2004b:5). This distinction is significant, as the level of data management needs is on an overview level, whereas the knowledge needs of a language trainer are at a detail (individual and group) level. A language audit, as expressed by Reeves & Wright (1996), Raasch (1994, 1998) and Koster (2004), is a managerial diagnosis and analysis of the current language situation or, if the corporation so wishes, a broader communication audit. An audit can be designated by managerial decision as a language audit, an LC audit or a communication audit; in the latter case, foreign languages are not the most central element of the audit. Huhta (2002) includes feedback and evaluation of the language program in a language audit, which makes a language audit more of a phase in an iterating language skills development cycle rather than a once-and-for-all solution.

There is no general agreement yet of how a language audit differs from needs analysis. Specifically, there is no consensus on where an audit begins and ends: whether the audit only consists of a diagnosis of the status quo and recommendations of a general kind or whether it also incorporates the creation of language strategy, language policy and a language training program. Moreover, some researchers see language audits as management tools that require a variety of methods such as discussions with management, market analysis, observation and interviews (Reeves and Wright 1996), whereas others see language audits as a “related use of questionnaires” (Long 2005:40) and “conducted through a quantified general survey” Ibid. 2005:41), and thus a sub-category of needs analysis surveys.

Perhaps a point of agreement might be that language audits seem to relate to wider contexts such as organizations or institutions (Long 2005:41) and are used for management purposes or for demand and supply purposes (Brecht & Rivers 2005:82; Huhta 2002), whereas NAs more frequently than not relate to individuals and groups, only occasionally larger social groups, and often exist for the purpose of targeting teaching to match acceptable goals.

Most language audits are company confidential information and little is written about them. Having been involved in conducting a number of them (Vientikoulutussäätiö/Fintra 1984- 1992) it is easy to see why the results cannot be publicized: company-specific competence information produces competitive knowledge not to be spread open. Few examples can be found in literature: Glowacz uses a scenario-based interview with management, interviews with staff, an employee survey and public information. His language audit extends from diagnosis to recommendations for a language program including course content down to the details of the material to be used and cost structure (Glowacz 2004:201-219). Needs analysis 5, regarded as a language audit in the educational sector (Huhta 2002:16-17), is evaluated in Section 5, Needs Analysis Methods.

2.6.5 Ethnographic methods

Ethnography, as a typical mode of anthropological enquiry, allows researchers to combine linguistic output with cultural practices (Duranti 1997:84-85). In ethnography, the anthropologist describes the social organization, social activities, symbolic and material resources and interpretative practices characteristic of a particular group of people, and is therefore worth attention of language and communication for professional purposes research. Good ethnography is typically produced by prolonged and direct participation in the social life of the community and implies two apparently contradictory qualities: “(i) an ability to step back and distance oneself from one’s own immediate, culturally biased reactions so as to achieve an acceptable degree of ‘objectivity’ and (ii) the propensity to achieve sufficient identification with or empathy for the members of the group in order to provide an insider’s perspective.” (Slembrouck 2006) The researcher can be observer, participant or interpreter (Sarangi 2007:577-581).

For a qualitative inquiry such as ethnography, Long also identifies the outsider/insider problem and conceptual problems relating to interpretations of the social patterns (Long 2005). Boswood & Marriott (1994) have used ethnography for studying how teaching and training can run in parallel in teacher training in key events of the course: panel discussions, analysis of communicative events, site visits and course evaluation. Ethnography is applicable as a needs analysis method for identifying learner needs and discourse community practices, and especially suitable when focusing on non-verbal communication, use of power, or various other communication strategies.

Surveys and interviews always involve introspection by respondents about the questioned items, with the respondents reporting orally or in writing and the researcher interpreting the data in ways that can filter or distort the perceived reality (Long 2005:42). The methods of participant and non-participant observation reduce some of the distortion, as the researcher has access to observing how the employee conducts a telephone call, what the respondent communicates and how, and what the external conditions of communication are as regards office space, interference and help available. “Participant and non-participant observations have the advantage of allowing direct, in-depth, contextualized study of what participants actually do, of the activities of interest in their natural environment (natural, that is, except for the presence of the outside observer in case of non-participant observation).” (Long 2005:42) Moreover, the researcher can access the documentation relevant for the communication and consequently minimize distortion and misinterpretation about language and communication needs. Researchers can easily complement knowledge gaps by putting additional questions to the informants after the observation.

Participant observation (M8) and non-participant observation (M9) are forms of ‘ethnography’ in which observations are carried out in real settings. There are many reports of non-participant observations as part of NAs (Jacobson, 1986 and others, reported in Long 2005), but participant observation is much rarer (Jasso-Aguilar 1999) for researching communication of the professional setting.

2.6.6 Diaries and journals

The use of diaries, journals and logs for pedagogic purposes in teacher training and research has been reported widely (Long 2005:44). However, their use for needs analyses, and thus gaining information about communication needs in the workplace environment and learner progression in reaching the relevant skills, is less frequent. What has been reported is learner progress through the European language portfolio (Kohonen 2005), autonomous learning (van Lier 1996) and learner progress through learner diaries (Parkinson & Howell-Richardsen 1990), and teacher diaries (Bailey 1982, Bailey & Oshner 1983). Journals have been used in the needs identification of academic reading (Reves 1994).

Diaries and journals allow the writer to take time to reflect on events. Their benefits are their currency, richness, and reliability, provided that they are recorded immediately after the event. They may become unreliable if written as an ‘obligatory must’, and especially if written long after the fact. They also depend a lot on the writer’s writing skills and ability to verbalize his/her perceptions and to analyze the communication event is such a way that the content provides replies to questions of specificity of communication.

In this study, diaries and journals are represented by evaluation discussion logs and teacher portfolios, which are applied in needs analysis NA5 and exemplified and evaluated in Section 5.5.

2.6.7 Methods of text analysis

Content analysis (M11) is the longest established method of text analysis among empirical methods of social investigation (Holsti 1968; Silbermann 1974), with a rich and varied literature. Without going into historical details of its traditions (described for example in Titscher et al. 2002), we may briefly describe principles and findings that can be relevant for language needs identification. In Holsti's terms:

> Content analysis is any research technique for making inferences systematically and objectively identifying specific characteristics of messages. (Holsti 1968:601)

Content analysis was used in NA4 for clustering open answers inductively into apparent categories; content analysis was also used in NA5, where the evaluation logs and teacher portfolio scripts were marked with apparent categories and clustered into principles of quality language teaching.

Another method of analyzing texts is discourse analysis (M12). The concept of 'discourse' is ambiguous and widely used in different disciplines. 'Discourse' relates to naturally occurring connected speech or written discourse at a level higher than sentence level or clause level. Discourse is linked with interrelationships between language and society and concerned with the interactive or dialogic properties of communication. A thorough analysis of major streams of discourse study can be found in Jaworski & Coupland (1999) and Schiffrin, Tannen & Hamilton (2006).

'Discourse' has been approached from many angles. Generally speaking, any linguistic units above the level of sentence can be construed as discourse (van Dijk 1993, 1997). Discourse can also be defined as language in its social context (Brown and Yule 1987; van Dijk 1997). Meaning has been incorporated in the understanding of discourse as strategies for interpreting interactive signs and conventions (Gumpertz 1982a, 1982b). The logic of text is emphasized (Halliday and Hasan 1976; Tannen 1979, 1984) by proposing that cohesion and coherence are part of discourse. The sense making of discourse can also be emphasized by seeing discourse as language as a means of organizing social, political and economic values (Foucault 1982). Moreover, discourse may reflect and maintain power relations (Fairclough 1995). In the social context of workplace communication, discourse refers to coherent language specimens in social contexts for purposes of professional communication. A major strand of social theory examines aspects of social behavior such as power (Foucault 1982; Bourdieu & Wacquant 1992; Habermas 1987). Common discourse research approaches include conversational analysis (CA) (Cicourel 1992), critical discourse analysis (CDA) (Fairclough 1995) and multimodal discourse analysis (Martin & Rose 2002:254).

Discourse analysis – whichever of the above approaches is taken – can be a fruitful way of understanding the communication of a social setting. An additional aspect of methodological approaches within discourse analysis is in semiotics and cultural studies. It is recognized that the neglect of non-verbal text is one of the most blatant shortcomings in 90% of research into language use (Slembrouk 2006). Semiotics is a vehicle for correcting this shortcoming. Antaki et al. identify a number of dangers in this method of treating talk and textual data which may fall short of discourse analysis. They are: (1) under-analysis through summary; (2) under-analysis through taking sides; (3) under-analysis through over-quotation or through isolated quotation; (4) the circular identification of discourses and mental constructs; (5) false survey; and (6) analysis that consists in simply spotting features (Antaki et al. 2002).

Rhetorical or register analysis (M13) is another approach to examining texts. A rhetorical approach in linguistic analysis of ESP was initiated by Selinker, Lackström and Trimble, who suggest that instead of the frequency of feature x or y the focus should be on the choice of writer's purpose rather than form. Register analysis provides another way of thinking about context, along with genre. The main difference from genre analysis is that register analysis is functionally organized into field, tenor and mode, which genre is not. The concept of 'register' goes back to Halliday, McIntosh & Strevens (1964), who popularized the term by defining it in terms of the contextual factors of Field, Mode and Tenor to differentiate between uses of language in, for example, a scientific, legal or medical register. Researchers have found that broad subject areas reflect differences in the structure of knowledge systems but also different assumptions about discourse and communication (Bhatia 2000; Hyland 2000). The relationship between genre and register is similar to that of language and context: register realizes the genre.

Computer aided corpus analysis (M14) has earlier focused on the lexico-grammatical patterning of text and how certain items tend to co-occur in naturally occurring language. Current corpus research has contributed greatly to the met discourse understandings of disciplinary texts in various fields. There are for example corpora of research articles (Hyland 2000:179-180), book reviews (Ibid: 181) and textbooks (Ibid: 183-184) in the fields of Electrical Engineering (EE) and Mechanical Engineering (ME).

The future prospects of corpus research show promise in corpus linguistics, particularly with regard to machine-readable texts in English and to the type of results thereby generated in translation and text production. For purposes of language needs the findings of corpus analysis are mainly at the micro level, whereas the demands of LCPP are primarily at the macro level. If corpus linguistics is to develop its 'applied' aspect and potential for exploitation further, specialized corpora need to be exploited at a more text linguistic level than at present to mirror the advances in the more theoretical corpus research (Flowerdew 1998).

Genre analysis (M15) is used for analyzing the prevalent structures of texts and common denominators of discourse community communication. The term 'genre' was first used by Tarone et al. (1981). 'Genre' is here understood in the sense of "a more or less standardized communicative event with a goal or set of goals mutually understood by the participants in that event and occurring within a functional rather than a personal social setting" (Swales 1981:10-11). The 'standardization' of the event implies some regulation by the professional community (Robinson 1991:26). Practical genre analysis in ESP was pioneered by Swales (1981) in a study of introductions to academic articles, where the viewpoint was moved beyond the level of sentences to move structures. In line with Swales, a variety of professional texts have been analyzed and researched: Results, Discussions and

Abstracts in academic writing (Dudley-Evans 1994; Ventola et al 2002; Ventola 1999,1987), sales promotion letters and job application letters (Bhatia 1993:118), self-published web résumés (Killoran 2006), weblogs (Miller & Shepherd 2004), collaborative genres (Yates et al 1997), meetings (Ponzini 2002), interdiscursivity in academic writing (Candlin & Plum 1999; Bhatia & Candlin 2000; Bhatia 2000; Candlin 2007) and social interactions in academic writing (Hyland 2000) .

Genre analysis may also focus on levels beyond texts. For example, Swales continued his work by analyzing the discourse communities that produce the genres and discovered socioculturally essential defining characteristics, such as having common public goals, mechanisms of intercommunication, participatory mechanisms, typical genres and lexis and a threshold level of its members with a suitable degree of relevant content and discoursal expertise (Swales 1990:24-27). Dudley-Evans agrees with the usefulness of the term discourse community, but at the same time identifies the difficulty of producing real and concrete examples of discourse communities, as any individual is in fact a member of various discourse communities. Consequently, Dudley-Evans & St. John agree that the concept of discourse community can be regarded as a 'virtual' concept, as Miller (1994) has suggested. In Robinson's view (1991:26-27), genre analysis represents a social semiotic view of language (Halliday 1978) and exemplifies the importance of content, particularly the social and institutional aspects of that content. Genre analysis has proven its value to the practice of ESP teaching. However, a number of significant questions remain open, as noted by Bhatia:

> Is this [findings of genre analysis, *my addition*] true of all the genres in this particular variety? How do these linguistic features realize in social realities in a particular field of study or profession? Why do users use these features and not others? Does the use of these features represent specific conventions on a particular genre, and if they do, what happens if some practitioners take liberties with these conventions? (Bhatia 1993:18)

Numerous other genres have been examined for the benefit of language teaching, including faxes, emails and business correspondence (Yli-Jokipii 1998; Louhiala-Salminen 1999; Kankaanranta 2005; Louhiala-Salminen & Kankaanranta 2005; Bhatia 2002).

Candlin argues that there are serious limits as to the theory of genre as it is people that make integrity in communication, not genre (Candlin 2005). Genre does not observe competing identities between institutional, professional and personal discourse choice (Sarangi & Roberts 1999). Genre theory does not acknowledge 'motivational relevancies' of the researcher and the participant (Sarangi & Candlin 2001). Moreover, when discourse is in action, multimodality and multisemiocity are always present (Scollon 2001), which genre does not take into account. Reality also recognizes interactional and institutional orders that genre does not recognize such as backstage and frontstage (Goffman 1959) and integrating the real world and the system world (Habermas 1987). Thus, according to Candlin genre theory limits the study of professional communication as it occurs in real life (2005). Nevertheless, for L2 study purposes genre study has contributed greatly to the understanding of the discourse of academic, business and technical texts.

2.6.8 Triangulated methods

Triangulation is a multiple data collection technique to study the same setting, issue or program. By combining multiple observers, theories, methods, and data sources, researchers can hope to overcome the intrinsic bias in single method, single observer, and single theory studies (Denzin & Lincoln 2000:307). Patton discerns four types of triangulation: methods triangulation, triangulation of sources, analyst triangulation and theory/perspective triangulation (Patton 2002:556). In methods triangulation, it is possible to reconcile qualitative and quantitative data to check the consistency of findings generated by different data collection methods. Source triangulation occurs within qualitative methods by comparing observations with interviews, public views with private views or perspectives of different parties such as clients, funding providers, outsiders (Ibid.:559). As Patton says:

> By combining multiple observers, theories, models, and data sources, researchers can make substantial strides in overcoming the skepticism that greets singular methods, lone analysts, and single-perspective theories or models. (Patton 1999:1193)

Triangulation of multiple perspectives seems to have increased amongst needs analyses during the era of 30 years: from single method use to more perspectives included in the analysis.

2.6.9 Summary of Existing Needs Analysis Methods

The review of existing needs analyses reported above yields some observations. The wide majority of the needs analyses mentioned have used surveys – mainly quantitative, partly qualitative. The second most common method seems to be interviews of different kinds. A third common denominator is perhaps that over the past 30 years the field has progressed from single method use toward more multimodal methodologies, especially since 2000.

What attracts attention amongst the studied needs analyses are the missing discussions of validity and reliability, as put forward by Long (2005). This shortcoming seems to validate the second part of Selinker's argument that no coherent theory of LSP pedagogical decision making can emerge until two issues are solved, one of them being "a careful consideration of research methodology questions related to an LSP theory that is close to practice" (Selinker 1988:34). Almost two decades later, Long notes that books and journals frequently report on needs analysis, yet relatively little attention is paid to needs analysis itself (Long 2005:2). In the documents analyzed for this section, language needs analysis methodology is discussed by only a few writers (van Els & Oud-de Glas 1983; van Hest & Oud-de-Glas 1990; Long 2005b). Apparently language needs analyses have been created for a local, practical need and their results have been applied to the local situation, with little concern for creating a theory for the language needs analysis practice.

The concept of language need has been analyzed by several writers (Mountford 1981; Brindley 1989; Berwick 1989; Robson 1990; Robinson 1991; van Hest & Oud-de Glas 1991; Dudley-Evans & St.John 2002; Ellis 2003; Koster 2004; Vandermeeren 2005; Vogt & Johnson forthcoming). There seems to be agreement that needs can generally be divided into two categories: subjective and objective needs.

For identifying subjective language needs, information needs to be collected on wants, means, PSA (present target situation), learner preferences and course information (Dudley-Evans & St. John 1998:125). Subjective needs also relate to unconscious needs and subjective unmet needs (Vandermeeren 2005:163). It is relevant whether the subject is an individual user or a professional requirer (van Hest & Oud-de Glas 1991:10).

For identifying objective language needs, information can be collected concerning language use: situational/functional activities, which competences, which socio-cultural contexts, which linguistic subskills, which relevant content (Mountford 1981:28) and the nature of the need: language, skills, situations, possibly linguistic content (van Hest & Oud-de Glas 1991:13). One approach for examining objective language needs is to focus on lacks of skills: competence gaps (Oud-de Glas 1991), Target Situation Analysis - TSA (Richterich & Chacerel 1977) or the gap between PSA and TSA (Dudley-Evans & St. John 1998:125). Objective needs can be further detailed by examining the professional communication information about TSA through linguistic, discourse and genre analysis (Dudley-Evans & St.John 1998:13).

Not much has been written on the issue of validity of needs analyses, the problem of what the data indicate and the question of whether the object of measurement has been what we set out to examine. Cicourel points out in context of social sciences research how fragments of discourse materials are shaped and constrained by large organizational settings in which they occur, and simultaneously often influenced by the emotional and cognitive processes present in the situation. (Cicourel 2007:736). Applied linguistics practice conveniently uses the fragments of discourse independently of the organizational and cognitive/emotional complexity of daily settings. To what extent such fragmented analysis succeeds in interpreting the character of the communication to the point may remain obscure, if not fully misleading for understanding communication needs. For this reason a discussion of the ecological validity of language needs analysis methods remains to be done. Ecological validity relates to how the methods used - be they official statistics, demographic distributions, surveys, interviews and recordeded discourse - can become convincing and authentic basis for the claims a researcher postulates about the findings. (See e.g. Cicourel 2007: 735) . As one example Cicourel mentions how teacher's assessment of a child's performance in a classroom appeared to be linked more to the teacher's memory of what the child earlier performed and an expectation of no change. Therefore labor-intensive observations, note-taking, and videotaping increased the ecological validity of such a study (Cicourel 2007: 748). This kind of input from social sciences can help in assessing the validity of needs analysis methods.

3 LANGUAGE POLICY CONTRIBUTING TO LANGUAGE AND COMMUNICATION FOR PROFESSIONAL PURPOSES

The third research question is this study focuses on how the industry and business language needs have been considered in Finnish national language education policy. This is why a look at language policy and language education policy in the Finnish context needs to be defined and described in this section.

Language skills of learners - be they in-service or pre-service learners - are highly dependent on what opportunities the formal education system provides for learners in the education system.In business terms language resources are the supply that optimally could meet the demand for languages - also needs of business and industry - in society. This section discusses language program policies that influence how language and communication for professional purposes are included taught, as language program policy largely determines what languages learners know and to what extent before they enter any language programs for professional purposes. In this perspective the national language program policy regulates - supports and prohibits - plurilingualism.

Optimally, there could be an interrelationship between societal language and communication needs and language program policy in such a way that societal needs would be taken into account by language program policy. The formal education system could produce more of the required language and communication resources that the society demands, and are communicated through language needs analyses. In this study we wish to see if the language needs analyses conducted on business and industry have had an impact on national language program policy during the past decades. Before moving onto the language program policy a glance needs to be taken on European language policies.

3.1 European Language Policies

European language policies must be briefly discussed, as European language policies and programs influence educational decision-makiing to increasing extent.

The European Union (27 member states in 2008) and the Council of Europe (47 member states in 2008) have both taken initiatives and implemented a number of action plans in collaboration with public and private organizations and language experts (Huhta 2005a). Some must be mentioned here, to illuminate the role of the CEFR in European language policy. Language learning and teaching have been regarded as a vital element in European Union collaboration. For almost 30 years, quality education and training has been promoted, including language learning, and language and culture awareness.

The European Commission has promoted language through several declarations. The Maastricht Treaty promotes the European dimension in education, specifically in language learning and language awareness (Maastricht 1992). The White Paper on Education includes languages as one of its objectives: each European citizen should speak two languages besides his/her native language (White Paper on Education and Training 1995:5). The language policy of the EU follows the Lisbon Strategy (2000). In 2000, the EU was set the goal of becoming the most competitive and dynamic knowledge-based economy in the world by 2010. This included the achievement of greater social cohesion while also being capable of sustainable economic growth with more and better jobs. The plan to achieve this goal is known as the Lisbon Strategy, and language learning is one of its 13 main objectives (Lisbon Treaty 2000). The Laeken Declaration emphasizes the cultural values of languages. Europe is a continent of human values and freedom of movement, which involves a respect for languages, cultures and traditions (Laeken Declaration 2001). The European Union recognizes that language and identity are closely intertwined and that language is the most direct expression of culture. Language policies have therefore been developed so that language diversity is respected, multilingualism is promoted and, if necessary, threatened languages are protected. The Commission's first Communication on Multilingualism, 'A New Framework Strategy for Multilingualism', was adopted in November 2005. This communication was complemented with the Commission's Action Plan of Promoting Language Learning and Linguistic Diversity.

Pluriculturalism and plurilingualism have been expressed as European values. In 2002, the European Council published guidelines for European language policy, which Member States could follow (Beacco & Byram 2002). In 2001, drawing on the work of leading specialist linguists in Europe and Brian North's doctoral dissertation, the Council of Europe published the Common European Framework of Reference for languages: Learning, Teaching, and Assessment (CEFR 2001). This policy, however, faces two challenging trends: firstly, the utilitarian unification trend of global business and working life that need to speak the same language; and secondly, the need to consolidate and support the prevalent cultural and linguistic diversity in Europe, including minority and immigrant languages and their cultures. The EU and the Council of Europe have promoted both, the EU tending to focus on the utilitarian perspective and the Council of Europe emphasizing plurilingualism and pluriculturalism. Europe is struggling between two poles: the multiculturalism and plurilingualism of all citizens and the practical economical point of view. It remains to be seen how much the EU is willing to pay for its ideals (Huhta 2005a).

The support for EU multilingualism expressed in the Communication includes citizens having access to EU legislation, procedures and information in their own languages, underlining the major role that languages and multilingualism play in the European economy, and finding ways to develop this further and encourage all citizens to learn and speak more languages, in order to improve mutual understanding and communication (EU Language Policy).

3.2 Common European Framework of Reference for Languages (CEFR)

The Common European Framework of Languages (CEFR) was prepared in the late 1990s and first published in English in 2001, A Finnish version of which was published in 2003 (EVK). The CEFR was negotiated among European language experts to detail a description of a general, action-oriented communicative approach of communicative language competence. Competences are represented by categories of linguistic components, sociolinguistic components, pragmatic components, strategies of communication and strategies of learning.

The CEFR provides a comprehensive analysis of language use whereby language users apply certain strategies to activate their general and communicative competences in order to carry out communication activities (in the production and reception of texts[i])[1] dealing with particular themes. This enables them to fulfill communicative tasks in specific situations in the various domains of social interaction (CEFR 2001)[2] (Kohonen 2005).

According to Kohonen, to be comprehensive, the CEFR describes a full range of language knowledge, skills and use. The CEFR uses proficiency level descriptors[ii] for assessment of the student's progress in the various languages, using criterion-referenced descriptors (A, B and C levels, each with two sub-levels). The common reference grid also provides a basis for the language user's self-assessment.

The CEFR uses the term transparency to mean that information about language must be clearly formulated and explicit, available and readily comprehensible to users**.** Coherence implies that the description is free from internal contradictions and requires a harmonious relationship among the components in educational systems including the identification of needs and objectives, the definition of content and selection of material, the establishment of teaching/learning programs and working methods, and decisions of evaluation and assessment (Kohonen 2005).

To become more independent and autonomous language users, students need to develop an awareness of language and communication, i.e. to understand the principles of how languages are organized and used in communication and how new experiences of language can be added to the student's framework of existing knowledge. Language users need to be able to make effective use of the learning opportunities and materials available to support their lifelong learning process in cultures and languages. These properties are detailed in the CEF handbook under

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[1] According to Nunan (1992:6-7), the term 'text' refers to "any written record of a communicative event. The event itself may involve oral language (e.g. a sermon, a casual conversation, a shopping transaction) or written language (e.g. a poem, a newspaper, a wall poster, a shopping list, a novel). I shall reserve the term discourse to refer to the interpretation of the communicative event in context." (Ibid.:6-7) The CEF uses 'text' in this sense, for both written and spoken coherent, meaningful units above sentences. Unfortunately, the CEF itself contains no references to the researchers from whom the ideas originated.

[2] Descriptors are clauses expressed in the CEF assessment scales for the purpose of self evaluation. For example, "is able to request for accurate instructions and follow them" (EVK 2001:119). A descriptor may include restrictions such as "when the information is clear and does not include specific knowledge" (Ibid.:118).

the goals of plurilingualism and pluriculturalism in foreign language education (CEFR 2001; Kohonen 2005). The leading idea of developing LCPP has been to gear it towards the best European practices (not only national interest), which is why the European perspective has been selected as the basis for developing the most recent needs analysis methodologies, such as those used in NA5-7.

The most referenced items of the CEFR are the banding scales, devised for general purpose education. Several applications of the scales have been made around Europe. As Section 6 deals with the approximations of realistic course extent, it is worth attention to include an application of CEFR, added with time estimations by prior research. Based on evaluations of realistic numbers of learning hours have been estimated by Stern 1984, Hammerly 1985, Huhta 1997, 2002, Takala 1997 and Koster 2004. The highest figures are given by Stern, a total of 3000-5000h as 'large amounts of language study' and the lowest estimates are by Hammerly a total of 750-950 hours in the American context. Realistic language programs must be based on well-informed knowledge, as we believe the proposed compromise in table 5 shows. This CEFR-based (see Section 3.5), simplified, holistic banding scale that can be applied for purposes has been formulated as follows:

Table 4. Simplified scale for professional language training use (redeveloped from Huhta 2002:12).

C2 – Mastery level	Fluent, precise, well constructed, confident communication for varied professional purposes.	"I understand complex professional writing; I understand native speaker's fast speech, including regular accents; I take initiative in conversation and can express my ideas fluently in professional conversation"	180-460h
C1 – Active level	Confident skills for normal professional exchanges, without much obvious searching.	"I understand professional texts; I understand native speakers' normal conversation; given time I can express my views well in conversation"	180-460h
B2– Manageable level	Manages to participate; needs clever techniques to substitute for shortcomings in common professional exchanges.	"I can understand texts and speech on common topics; I can manage daily situations and many professional ones without much help"	180-360h
B1 – Limited level	Manages situations through passive participation; uses simplified language; typical delays in reactions and understanding.	" I understand most parts of texts and many common conversations; I can deal with a number ordinary daily situations; I can understand common topics with some help"	180-360h
A2 – Basic level	Concentrates on listening and understanding; exchanges common phrases.	"I know some basics and can understand a number of elements in conversation, but I miss out main contents of conversations. I cannot use the language except for some phrases exchanged in frequent situations."	180-360h
A1 - Elementary level	Can recognize some parts of texts and formulaic language; can express some express formulaic language.	"I have studied a few elementary courses and can understand numbers, many signs and parts of frequently occurring texts."	180-360h
Total			1100-2400h

The above estimates are based on average figures expressed in available research reports and practical estimations of lengthy teaching practice.

Taken the banding scales of the Common European Framework of Reference for Language (CEFR 2001) the approximated learning times of 1100- 2400h for mastery level skills (C2) should be considered, depending on how widely and how competently the employee needs to communicate in target situations. On the below scale suggested for work-life purposes, the approximate time for raising a language level from the lowest level to B1-level is somewhere between 180-360 hours of learning, depending a lot on learner, on the amount of comprehensible input and circumstances. On higher levels, from B2 and above and above, the required amount of study is even higher, from 180-480 hours. This estimation is relevant later in section 6.1 as the realistic extent of language learning time is considered from the organizer perspective.

Critical appraisal of the CEFR

The CEFR can be criticized in many ways. Ontologically the CEFR represents a variety of approaches to language learning, teaching and evaluation as a manual to be believed in, without allowing space for evaluation or reflection of choices. The CEFR uses no references to source information or efforts to validate the claims, and with very few definitions. This is a major weakness, and disables a serious discussion on other solutions than e.g. perhaps banding scales. Additionally, the popular banding scales for assessing a person's language skills use descriptors that exclusively relate to the definitions of a native speaker of English, rather than an L2 speaker. The descriptors contextualize to a learner using a language in a literary, not vocational or professional interest, despite the fact that most learners need to learn a language as a tool, not as an end itself. Moreover, the concept of language remains poorly defined, and communication factors such as body language and discourse community practices are excluded. Any values of evaluation and curriculum design are not reflected upon or questioned. Also, the CEFR completely ignores intercultural communication aspects.

Despite these limitations, the CEFR is still the most comprehensive European description of language and its teaching that is applicable also for LCPP purposes. The banding scales have contributed positively to the transparency of assessment and testing on the European level (Takala 2007). The CEFR can also be used more broadly than for applying the sections on banding scales, as has been done in many European countries, including the latest needs analysis practices to be analyzed in this study. CEFR has truly become a 'framework of reference' - to be agreed or disgreed on in language education, and for that reason CEFR was the basis of needs analyses 6 and 7, the most recent NAs of this research material.

3.3 Language Policy and Overall Language Planning

A language policy is a body of ideas, laws, regulations, rules and practices intended to achieve a planned language change in a society, group or system. Language policy may be realized at a number of levels, from very formal language planning documents and pronouncements to informal statements of intent. Language planning is an activity, most visibly taken by government, intended to promote systematic linguistic change (Kaplan & Baldauf 1997: xi). Linguists, according to Kaplan & Baldauf, have historically concentrated on langue, technical solutions to language problems as language planning. Only recently have they started to explore parole, through the study of discourse. It is necessary to study both aspects in examining the discourse of language politics and society or the more informal but powerful political and social aspects of language policy (Ibid.).

Discussion of the decision-making authority for languages and foreign language learning programs involves such terms as policy for languages/language policy, policy for foreign languages and policy for foreign language teaching/foreign language teaching policy. Policy for languages or national language policy often relates to the definitions of the official recognition of languages as a socio-political issue. Foreign language teaching policy refers to the overall language principles applied in a specific country (van Els 1993:3, 1994). At the initiative level, language planning is intended to address the social language problems encountered in a country. Takala et al. highlight an interaction between language policy and language planning (Takala et al. 2000:235). Language program policy was introduced as a term already in 1979 (Language programme committee 1978), referring to language planning but with elements of language policy making that require political decision making. This term is used here to refer to the education perspective of language planning.

Finnish language policy making frequently refers to the language planning model of Kaplan & Baldauf (1987, 1997). Kaplan & Baldauf do not include the language needs of workplaces in their model at all; instead, they see language planning from an administration point of view, where target users are not considered. The Kaplan& Baldauf model forms the basis of the work of Takala (1979, 1993), Sajavaara, Sajavaara & Takala (2000) and Piri (2001). The societal language needs are little included in these models, none in Kaplan's and Baldauf, slightly in Takala's model, as the organizer of language education, enclosed as Appendix 1. Takala's early model of language planning for National Program Policy does include the element of language needs at Level 1, the societal level. This societal level, in his view, is composed of language policy, language needs in society, personal motives, language environment and international interaction, collaboration and task allotment, not societal language needs. What is favorable in comparison to Kaplan & Baldauf's (1987) model is that Takala also incorporates language needs at a societal level, which is the focus of this study.

Principles for language planning have been examined by Cooper (1989), who evaluated four frameworks from disciplines other than linguistics and came up with a framework for language planning. According to Cooper there are eight factors that influence language planning, marked here with Roman numerals. First, (I) what actors influence the accounting scheme for language planning. These actors may be formal elites, influentials, counter elites or nonlife policy implementers. Further in Cooper's scheme there are (II) attempts to influence what behaviors will take place in the linguistic environment. These behaviors belong to (III) people and the behavior happens (IV) for certain ends, either overtly, openly or latently, which can appear as non-language behavior. Also, (V) conditions influence language planning. The conditions may be situational (events, transient conditions), structural, referring to political, economic, social (demographic/ecological) and cultural or environmental factors, with influences from outside the system, or informational such as whether fixed dates exist for decision-making.

Further influencing factors in language planning according to Cooper are (VI) by what means (e.g. authority, force, promotion, persuasion) language policy is implemented and (VII) through what decision-making process language planning takes place. The final element of Cooper's accounting scheme is (VIII) what effects language planning results in (Cooper 1989:98) – for instance as learner choices or national language resources. As seen above, when national language policy is being planned there are many forces at stake – political, social and linguistic, which need to be considered when formulating language program policy.

3.4 Language Policy and Language Program Policy in Finland

This section highlights the Finnish language policy, major milestones of the language education program and the language environment, including an evaluation of the current foreign language resources in the country, which are based on the output in languages of the formal education system, not forgetting that also the informal language learning occurs, especially as the population base is becoming more multicultural.

Language policy in Finland

Linguistic rights in Finland are regulated by language law. The Constitution forbids discrimination by language (The Constitution of Finland, section 6). Bilingualism is constituted by law, and various linguistic minorities are allowed to use their native languages (section 17).

A full account of the historical steps of language legislation since 1922 can be found in Nuolijärvi (2005) and Saari (2005) concerning the perspective of the Swedish language. The most recent language law was passed in February 2003, consolidating Finland as a bilingual country. Municipalities are defined as monolingual or bilingual. The law grants speakers of both national languages, Finnish and Swedish, the right to use either Finnish or Swedish in legal proceedings and in interaction with public authorities, including documentation. The law regulates the language of place names, traffic signs and product information, and also the language proficiency required of persons employed in central or local government (Act on the Knowledge of Languages Required of Personnel in Public Bodies 6.6.2003/424). A history of Finnish language education starting from before Finland's independence can be found in Piri (2001:102-274).

Milestones of Finnish language program policy

Piri conducted a major analysis of Finnish language program policy in 2001. As a Ministry of Education official, she had a bird's eye view of educational policy development over a number of years. There is not reason to repeat her findings, but a brief overview of the milestones in language program policy can be found in Appendix 2.

Before the 1970s, languages were seen as important in education paths leading to academic careers; language education was thus not included in the elementary school curriculum as a compulsory element. Beginning in the 1960s, with the introduction of the comprehensive school system, policy makers began to see things differently. A major milestone was the work of the Language program committee, which was set up for the reason that language choices were too English-dominated, and the aim was to extend the range of choices for A1 – the first foreign language taken at school (Numminen 2008). This committee was set up in 1976 to examine and suggest decisions far into the future, specifically with a view to the period 2010-2030. The work of this committee laid the basis for Finnish national language program policy. The work of language program committee of 1978 is still the main structure of the language education program, with minor amendments made to the basic structure. Significant additions foundation of languages in general education are the introduction of languages as a compulsory component of university education since the 1970s (Sajavaara 1998) and university of applied sciences education since 1991 (Sajavaara 1999).

Demographic developments in population

The linguistic situation can be viewed through demographics, language groups and their size at a macro level. Finland's language environment is traditionally seen as fairly homogeneous, almost monolingual and at the most bilingual. Linguistic minorities have always been smaller than in other European countries (Nuolijärvi 2005:283; Piri 2001:108). The number of Finnish speakers is close to 5 million as shown in Appendix 2. There are up to 300,000 Swedish-speakers and a growing number of Russian speakers and Estonian speakers. The rest – Somali, Arabic, Albanian, Kurdish, Vietnamese and Spanish – number fewer than 10,000 speakers, but are radically increasing. This can be seen in the absolute figures to be presented in Table 2, and summarized in figure 9. The figures are based on data from Statistics Finland (Kieli iän ja sukupuolen mukaan maakunnittain 1990-2007).

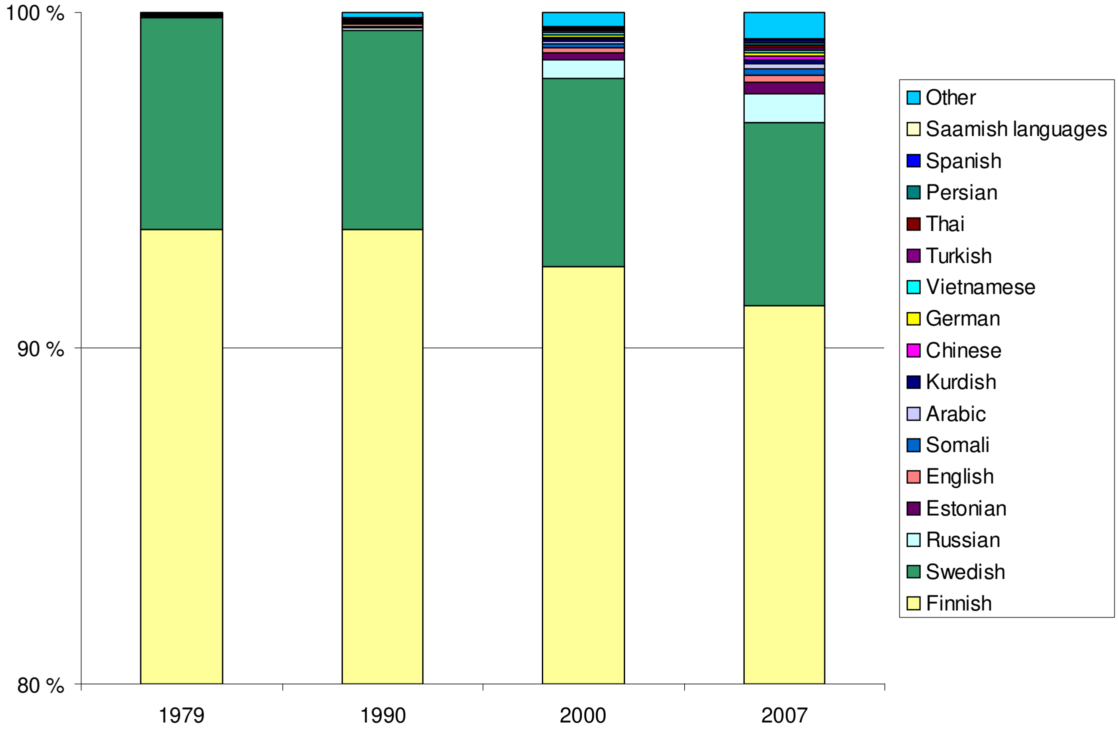

Figure 9. Demographic changes in the Finnish language eco-system 1979-2007.

Figure 9 illustrates one of the influencing factors, demographic change since 1979, when the language program policy was formulated. The linguistic map of Finland has diversified over the past 30 years, the time of a highly homogeneous linguistic ecosystem. Since 1990 development has been rapid. Based on Appendix B the number of Russian speakers is now ten times more than in 1990; the number of Estonian speakers is fourteen times more. There were no Somalis in the country in 1990; now there are about 10,000. There has also been a radical increase in the number of Arabic, Kurdish, Chinese, Vietnamese, Turkish, Thai and Persian speakers, and also English speakers. All in all, the number of foreign language speakers in Finland is now seven times higher than in 1990. Finland’s linguistic map has truly changed (Nuolijärvi 2005:285), as seen in the absolute figures of table 5.

Table 5. Native languages of the population in Finland 1990-2007 [Based on Statistics Finland 2008]

Native language	1979*)	1990	2000	2007
Total population	4,771,292	4,998,478	5,181,115	5,300,484
Total foreign language speakers	4,305	24,783	99,227	172,928
Speakers of Finnish	*4,463,032*	*4,675,223*	*4,788,497*	*4,836,183*
Swedish	*301,554*	*296,738*	*291,657*	*289,596*
Sámi languages	*1,289*	*1,734*	*1,734*	*1,777*
Russian	1,255	3,884	28,205	45,224
Estonian	-	1,394	10,176	19,812
English	1,406	3,569	6,919	10,589
Somali	-	0	6,454	9,810
Arabic	-	1,238	4,892	8,119
Kurdish	-	179	3,115	5,893
Chinese	-	790	2,907	5,733
German	1,644	2,427	3,298	4,820
Vietnamese	-	1,643	3,588	4,645
Turkish	-	848	2,435	4,276
Thai	-	244	1,458	3,990
Persian	-	291	1,205	3,896
Spanish	-	894	1,946	3,637

*) Based on Statistics Finland, Population structure statistics 1979. (Tilastokeskus, Väestörakennejulkaisu 1979. Tilasto 11).

A rising trend is seen in all languages except one: Swedish. In practical terms, the status of Swedish has approached the role of a minority language (Piri 2001:110) – though strong support is given to equality of all national languages in fairly recent legislation (Language Act/Kielilaki 2001) – as witness the fact that Swedish speakers are increasingly conversant in Finnish, while not many Finnish speakers can speak Swedish. It is a common trend amongst minority language speakers that they become bilingual language users. Sajavaara estimates that only about 15% of Finland's Swedish speakers are monoglot Swedish speakers (Sajavaara 2006). According to statistics from 2007, about 43,000 Finnish citizens are monoglot Swedish speakers. This figure is close to the current number of Russian speakers, which was approximately 45,000 in 2007.

Over a longer time perspective, between 1990 and 2003 the percentage of Finnish speakers in Finland's population grew from 87% to 92%, while the Swedish-speaking population shrank from 12.9% to 5.6% (Saari 2005: 317). In absolute figures, this marks a decrease from 349,700 persons to 289,900 (Ibid: 319); the decrease in percentage is less due to the shrinking number of Swedish speakers than to the growth of the Finnish-speaking population. During the same time period, 1990-2003, the percentage of Russian speakers increased from 0.3% to 0.7%.

Demographic factors change over time, from decade to decade, as stated by Kaplan & Baldauf (1997). Figure 9 applies Kaplan & Baldauf's decade comparison with figures collected from different decades within the Finnish linguistic eco-system.

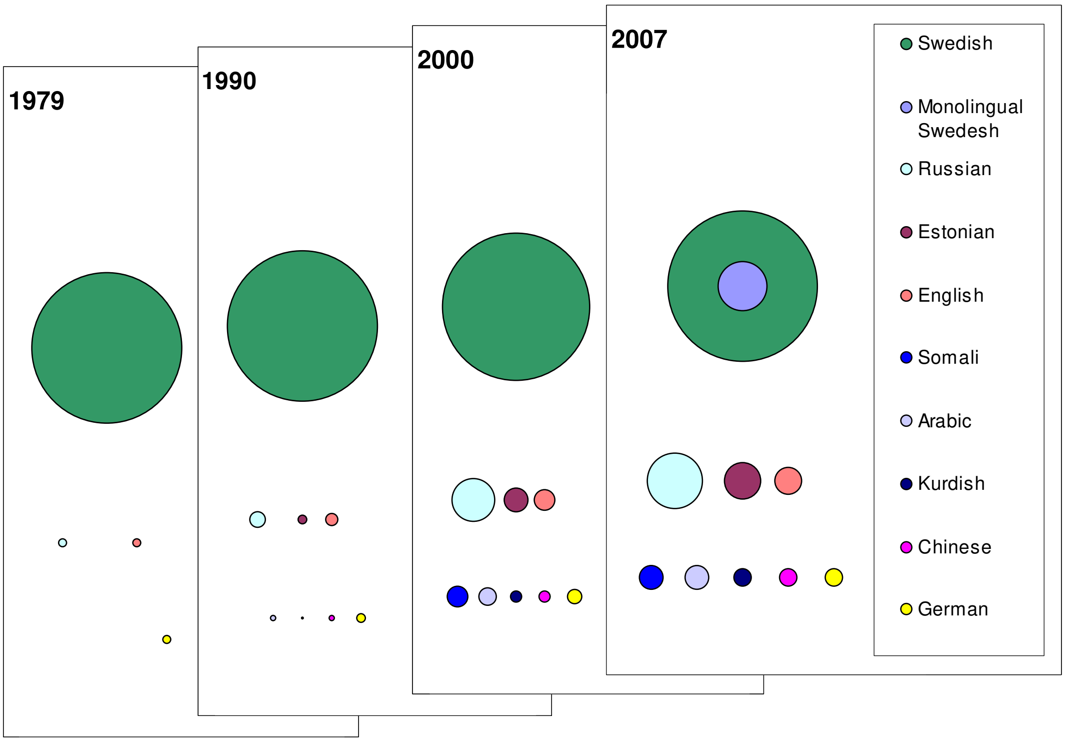

Figure 10. Changes in the Finnish linguistic eco-system (Applied from Kaplan & Baldauf 1997:312).

The Finnish eco-system shows how the earlier homogeneous community of Finnish and Swedish speaking populations has diversified decade after decade. As suggested by Cooper (1989), the language program policy must be analyzed from at least the suggested eight viewpoints. This analysis needs to occur regularly, for the analysis to be able to influence language program policy making. On looking at the Finnish language program policy and its milestones (Appendix 2) we see that the basic structure of language program policy has remained the same since since 1979.

In Cooper's terms, factors affecting the accounting scheme for language planning have changed as the situational, structural and cultural conditions (Cooper 1989:5) in Finland have undergone significant changes. Language program policy has, however, remained the same as we saw above in 3.2.

National language resource development

Each of the levels of educational system has conducted evaluations as to the accountability of the objectives and aspects of how language education meets its objectives. For example, Väyrynen et al. (1998) evaluated vocational education in 1998 and concluded that the language offering was somewhat narrow and institution-centered. There will be a major need for language teachers in the next few years due to retirement. Carlsson evaluated the extent to which language programs at universities promoted less widely used and taught languages (Carlsson 1995) and concluded that resources must, despite the needs of multilingualism, be allocated to languages necessary for student graduation. Sajavaara conducted a study of language education at the recently established universities of applied sciences, commissioned by the Ministry of Education (Sajavaara 1999). According to the 1979 Language program committee, 100% of the population should have some skill in English, Swedish and Finnish. 30% should exhibit a skill in German and Russian, and 15-20% in French. Objectives were not set for any other languages.

Comparative quantitative data on the language resources of different school levels are scarcely available and are reported in incompatible forms. This could be identified as an effort was made to review the current language resource (Huhta 2003). This is probably due to the fact that there is no administrative body in Finland to oversee the development of national language resources, nor an authority willing to drive such development, besides the Ministry of Education, which currently does not have a nominated authority to oversee the developments. As Sajavaara put it, no-one is responsible for language education decisions as a whole, let alone for the details of the language education program (Sajavaara, March 10, 2006, KIEPO). The KIEPO national language political project suggests that an official should be appointed to the Ministry of Education to oversee the development of language policy (Pöyhönen & Luukka 2007). However, by 2008 no national measures have been taken.

Current national language resources

Information for evaluating national language resources is scattered around various locations and uses different quantifiers of resources; it is thus difficult to compare and summarize. Some data for evaluating current national language resources may be found in the national language education program (KIEPO final report 2007), statistics of language choices in the matriculation examination (Matriculation examination board 2008), a Finnish overview of the European language situation (Johansson & Pyykkö 2005) and a review of Finnish language resources (Huhta 2003). The language teachers' journal Tempus also publishes reviews on the developments of language choices over time.

These sources confirm that Finnish language education policy has been farsighted in that Finland has met the European expectations of two foreign languages for all European citizens even before the White Paper on Education and Training required this. A recent language poll, based on self-evaluation of language skills, affirms that the language skills of the adult population (aged 18-64) have continued to improve (Statistics Finland 2008).

The Statistics Finland figures do not, however, show the distribution of competent, independent or elementary users. For example, the percentage of competent us-ers of English may be as high as 40% in the youngest age groups but only 3% in higher age groups (aged 55-64). The seemingly positive trend in German, French and Spanish language skills does not communicate that these skills are mainly at an elementary level, which is really not sufficient for the growing communication demands of the workplace.

Let us compare the self-estimated figures above to the goals of the Language Program Committee of 1979: English, Swedish and Finnish 100%, German and Russian 30%, French 15-20%; these goals seemed well considered at the time (Takala 2008). While we are not yet in the target period, 2010-2030, we should note that none of the goals have been met. English is close, and the trend is in the right direction. In all other languages, however, an opposite trend is seen, as the following figure shows.

A negative trend, despite all efforts to diversify Finnish language resource base, can be seen in the language choices of pupils completing the national matriculation examination (the Finnish baccalaureate).

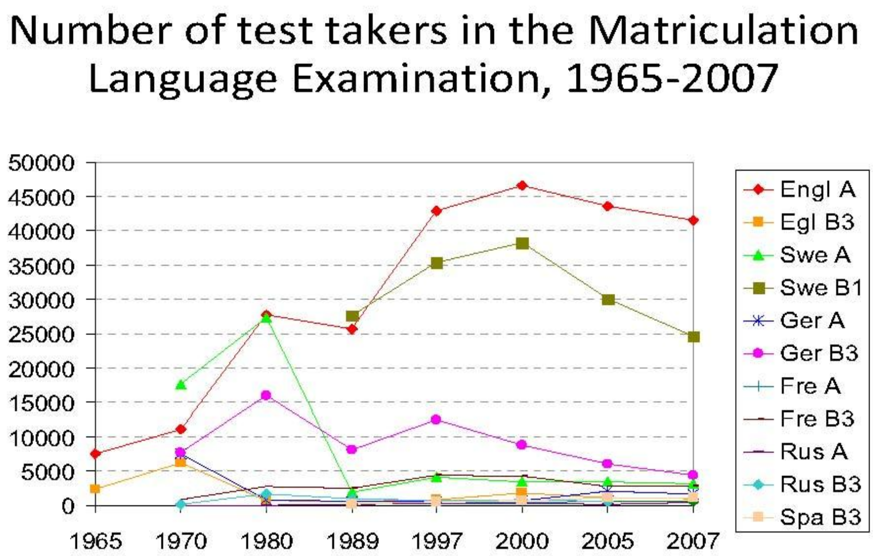

Figure 11. Number of test-takers in the matriculation language examinations 1965-2007[Takala 2008]

Figure 11 shows that the national language resource base from secondary education source is steadily declining, as the number of examination takers is constantly decreasing for all other languages except English.

Takala, a significant contributor and collaborator in the formation of Finnish national language policy since the 1970s, declares the current situation a crisis (Takala 2008). In his analysis, Takala points out that the need for plurilingual competence has increased, yet the study of languages has decreased. Simultaneously, with the increased level of required proficiency, educational cuts make these demands “difficult or impossible” to meet. The levels of proficiency have in the past decade been prescribed for several contexts using the classification of the Council of Europe, but in many cases they have become unreachable, and consequently the certificates given are not reliable. The crisis is a result of several actions and decisions taken by several official agencies over a long period of time that have undermined the support for language study. There is an obvious contradiction between the public rhetoric that supports language study and the lack of concrete actions.

3.5 LCPP Teaching and Teacher Education Contributing to LCPP

Teaching language and communication in a variety of fields is the domain of LCPP teachers. Therefore LCPP teachers have an interest in increasing their knowledgeability about communication at workplaces. LCPP teachers are a diverse collection of in-service company language consultants and language school teachers, university language center teachers, language teachers at various university departments, and teachers at universities of applied sciences (UAS) and vocational schools, all of whose profession involves the teaching of specialized varieties of language. There is no uniform community of ESP teachers, but rather families of ‘business communication’ teachers, ‘technical communication’ teachers, and teachers of ‘law’.

Elements that differentiate the teaching of LCPP in comparison to general language education teachers are discussed in (Huhta 2008b); therefore this is not discussed here. Seven highlighting points can, however be mentioned: Learners are adults (1), group composition changes annually (2), therefore knowledge of a variety of fields in necessary (3). The teacher needs to cope with a shortage of (4) and be a creator of his or her own material and learning activities (5). Some further points differentiate LCPP teaching from general language teaching, namely identification of teaching objectives (6) and teaching goals (7). General language educators have their curricula expressed in a fairly detailed format in national guidelines for curricula. LCPP teachers need to construct theory own goals and objectives, as they are only vaguely formulated by clients or institutions.

Language Teacher Education

Relating the LCPP teacher challenge to teacher education, it is worth mentioning that LCPP teachers are educated in the same group as secondary school teachers. The Ministry of Education published a report, Teacher Training 2020, at the end of 2007 (Teacher Education 2020). The report describes the challenges of teacher education from international, European and national education perspectives with a recommendation to increase teacher training intake to replace the baby boom generation teachers departing the workforce in 2010-2020.

This document ((Teacher Education 2020) makes no specific mention about language teaching for professional purposes, though there are more than 1,000 such teachers employed at universities of applied sciences. This group is not recognized in the report. The committee set up for the purpose heard all the universities providing teacher training and interviewed their rectors. Additionally the committee 'extensively' consulted interest groups related to teacher training and the teaching profession. The committee asked for estimates from the National Board of Education of teacher needs by the year 2020. What is worth noting is that only teacher training units at universities of applied sciences were consulted. Stakeholder groups in industry or business, or any other workplace organizations, were not sufficiently consulted for an evaluation of language teacher need.

The contributors that were consulted regarding visions of teacher education were university rectors, a total of eleven interviewed separately (OPM: Teacher Education 2020:60). The only link to the underlying object of need (need of teachers) in society, commerce and industry was one single hearing on May 15, 2007, involving representatives of about 15 different organizations. The invited parties represented teacher, student and parent associations (Trade Union of Education in Finland OAJ, Finnish Association of Principals SURE, Aineopettajaliitto [Association of subject teachers], Association of Kindergarten Teachers in Finland LTOL, Teacher Student Union of Finland SOOL, Union of Finnish Upper Secondary School Students, vocational teacher training colleges, Finnish Parents' Association), municipal and regional administration (Association of Finnish Local and Regional Authorities, Commission for Local Authority Employers, culture departments of the State Provincial Offices, City of Helsinki) and a few other minority representatives. The only party amongst the 15 that could have represented societal and industrial needs of teacher education for occupations in the vocational sector or the professions of universities of applied sciences was the Confederation of Finnish Industries EK. The records do not indicate which organizations were actually represented on that day, or which individuals were present. The only reference in the report of the hearing to the existence of economy or commerce is this: "More contacts were also desired between the private sector and research." (Opettajankoulutus 2020:64) This is to what extent the needs of industry and business have been able to influence the future of teacher training.

In this report, teachers at universities of applied sciences, with the exception of specialist student counselors, are not included at all in calculations of future needs (OPM: Teacher Education 2020:31). Teachers of all languages are lumped into one category. The predicted need for additional language teachers is calculated at 1,350 in 2001-2009 concerning both domestic languages and all foreign languages – 150 new teachers per year. Finland is facing a major shortage of language teachers in the LCPP education sector, as these teachers are not included at all in the above replacement calculations.

Some teacher training departments at science universities have initiated programs for LCPP teachers. The Department of Education at the University of Joensuu continues its 25 credit program for vocational language teaching with a group of students each year. The University of Tampere has since 2003 offered specializing teaching practice (*laajentava harjoittelu*) where the student has a choice of vocational education, adult education, immigrant education or education of diverse learners as an option besides general education. The University of Vaasa is starting a similar program in collaboration with the University of Tampere in 2008. The problem remains: the Finnish education system does not provide sufficient specialized training for LCPP teachers (Huhta 2008). A fairly current language policy review mentions that "the role of higher education institutions providing language teacher training for vocationally oriented language teachers will be examined" (Pöyhönen & Luukka 2007:474).

In this section we have seen that European language policy provides certain guidelines for developing national language program. Some pan-European language incentives such as CEFR have had a major impact on the transparency of language education, especially as levels of skills can now be compared to a mutually agreed 1-6 point scale. Language program policy influences the language resource in the country by facilitating plurilingualism or by limiting language choices. In Finland we see language program policy having developed in fast steps in the 70's but then faded out to pertaining to the same system despite changes in the demographic language eco-system.

This concludes the theoretical foundations of LCPP including ESP, applied linguistics theory, central conceptualizations of Language and Communication for Professional Purposes, including an account of existing needs analysis practices. We have also taken a look at the language education policy environment Finland resides in, both nationally and as a European member country. In the role of European member state Finland applies such language educational standards as the Common European Framework of Reference for Languages (CEFR), which also the recent needs analyses rely on.

4 RESEARCH METHOD AND MATERIAL

This section describes the research design and discusses in detail why the approach of evaluation research was selected for researching language needs analysis methods and their contribution to LCPP. This section also provides the background data on the seven needs analyses, the research material of this study.

4.1 Evaluation Research as a Research Approach

To gain researched knowledge on a phenomenon such as LCPP, largely reliant on human perception, creation and production calls for research approaches that are qualitative. It is therefore it is natural to rely on holistic methods and allow multiple subjective perceptions of reality as evidenced by the clues and statements provided by respondents. The relationship between the knower, e.g. the company language training coordinator, and the known, language training, is interactive rather than independent as in the positivist research tradition. The outcomes of inquiry that can be gained are context reliant and time dependent 'working hypotheses' which may lead to deeper understanding. Unlike in the positivist research tradition, the research cannot be value independent. Recognized as value bound, this research follows the methodology of naturalistic inquiry. This is one reason why the values and objectives of framing the evaluation are discussed in Section 3 in some detail for each stakeholder group.

In methodology, there is a tendency to use the terms evaluation and evaluation research interchangeably (Patton 2002), although some researchers distinguish between the two. This is significant from the point of view of this study, as we consider needs analyses as a form of evaluation (though some are more clearly evaluations than others) and the actual examination of the seven needs analyses of research material as evaluation research.

Cordrey and Lipsey (1986) argue that evaluation and research perform different functions as far as evaluation studies are concerned. According to them evaluation studies are "essentially a service-oriented, practical mode of inquiry that primarily has evaluative intent" (Cordray & Lipsey 1986:19). By comparison, program research is seen as "an applied social science study of social programs with no pretensions to be evaluative, responsive or useful (at least in the short term)" (Ibid.:20). According to Clarke, evaluation research not only discovers whether the program works or not but also how it works (Clarke 1999:4). Moreover, Clarke claims that in evaluation research emphasis is placed on ascertaining cause-and-effect relationships between program activities and outcomes. Clarke sees evaluation and evaluation research as two perspectives of evaluation that allow appreciation of differences in method and purpose. Cordray and Lipsey (1986) acknowledge that there is considerable overlap between evaluation and evaluation research.

Patton (1986) also differentiates between evaluation and evaluation research. According to Patton, the emphasis in evaluation is on "utility, relevance, practicality and meeting the information needs of specific decision-makers" (Patton 1986:15). By contrast, evaluation research has "greater emphasis on generalizability, causality, and credibility within the research community" (Ibid.:15). In the following, I will reason why the method of evaluation research was chosen for this study rather than action research or historical analysis.

As previously stated, needs analyses have been conducted since the 1960s, yet little has been written about their theoretical foundations, classifications, question formulation, reliability or validity. Therefore introducing the issue of methodology of needs analyses poses a major challenge, especially if the contents of needs analysis are also considered, as in this study.

When considering how to approach needs analysis, my first point of entry was to produce a historical overview of needs analyses, to classify the questions and to propose a set of questions applicable for various purposes. After careful consideration and discussion with my colleagues, I decided that an overview might become a record of the projects and repetition of the results with little value added or upgraded knowledge on the issue of impacts on LCPP.

I then continued to examine qualitative methodology carefully to seek other options. Looking at the research material, I realized that each of the seven needs analyses from 1989 to 2007 selected in the first stage appeared to be an action research cycle, taken as a deliberate, cyclical process of planning, action taking and evaluating. This is participative, related to methods such as experiential learning (Kolb 1984; Kohonen & Kaikkonen 2001, Kohonen 2001) and reflective practice (Shon 1983). Action research involves being engaged "in a rigorous series of diagnosing situations, planning, taking action and evaluating than is perhaps the norm" (Coghlan & Brannick 1996:xii). Action research differs from the hypothetico-deductive approach in that it does not endeavor to distinguish between research and action, but rather combine the benefits of both (Ibid.:3). Action research is "the concern of practitioners who want to improve organizations and communities" (Ibid.:15). This is exactly the case with the seven needs analysis projects.

According to readings of the principles of action research (Lewin 1946; Argyris 1993), the principles seemed to be a perfect fit for the analysis of needs analyses. Argyris considers that action research integrates theory with practice (as in this study), establishes a frame for the whole and analyzes the whole into its elements (LCPP – but not really all of its elements). Action research builds constructs to be used for generalizing and understanding the individual case and places social science at the service of democracy.

If action research (AR) were to be taken as a method for the research of language needs analyses, many of the criteria of solid AR practice could have been met, but not all. In this case, the action researcher cannot take action, as everything occurs in retrospect. Besides, certain questions arise: can AR take place without the researcher and the client personnel knowing about it? This is questionable. Could a project be labeled AR in retrospect? This is also questionable. I decided to dismiss AR as an option, despite many well suited and constructive components of the methodology.

Another option for examining language needs analyses and their yield could be case study research (Yin 1994), because it provides means for studying emergent practices Voss, Tsikriktsis & Frohlich 2002: 1999). Perhaps study could be based on case research, which can rely on longitudinal and retrospective as well as current cases (Voss, Tsikriktsis & Frohlich 2002: 202). What in this situation would be the unit of analysis, the 'case'?. Not a company, not a field, not a needs analysis project – not any clear-cut, specific category that would render knowledge for the emergent concept of LCPP, because all of the projects are different, using different needs analysis methods, and seeking to reply different questions relying on the day, age and context.

By this stage of reflection, I had dismissed historical analysis, AR and case study as research approaches for the above reasons. Looking back to the research material, I discovered that the research question formulation in NAs seems to change along with whose purpose the NA is serving. The utilization element was present in all of the NA projects: how to improve training activity, how to improve teaching, how to improve curricula. What are the questions and answers saying about change in the teaching paradigm, the theory behind the change?

Evaluation research seemed to include many of the elements that appeared in the research material: the stakeholder focus (Patton 1997), the utilization perspective and the change element of how teaching and learning can be impacted through needs analyses. Needs analyses are not actual evaluations – or could they in fact be seen as such? A closer look at definitions of needs analyses revealed needs assessment – to what extent need is identified, an evaluation of need (McKillip 1998). Thus, a closer look at evaluation methods was necessary. According to Patton, program evaluation is

> a systematic collection of information about the activities, characteristics, and outcomes of programs to make judgements about the program, improve program effectiveness, and/or inform decisions about future programming. […] Evaluative research, quite broadly can include any effort to judge or enhance human effectiveness through systematic data-based inquiry. Human beings are engaged in all kinds of effort to make the world a better place. These efforts include assessing needs, formulating policies, passing laws, delivering programs, managing people and resources, providing therapy, developing communities, changing organizational culture, educating students, intervening in conflicts, and solving problems, When one examines and judges accomplishments, one is engaged in evaluation. <u>When the examination of effectiveness is conducted systematically and empirically thorough careful data collection and thoughtful analysis, one is engaged in evaluation research.</u> (Patton 2002:10; my underlining)

Patton speaks about the use of programs and how by the late 1970s methodological rigor in evaluations was not solving the problem of use (Patton 1997:16). When considering the interrelationship between needs analysis and the paradigm of teaching and learning LCPP, we discuss the theory formation of LCPP through needs analyses. In any evaluation of a program, a theory must be explicated. Weiss identifies four basic sources of information that help in the generation and specification of program theories: documents, people, prior research and logical reasoning (Weiss 1997:508). This is what is used in this study.

Chen notes that program theory needs to be both descriptive and prescriptive and relate to both scientific and practical concerns, being "a specification of what must be done to achieve the desired goals, what other important impacts may also anticipated, and how these goals would be generated" (Chen 1990:43). Thus, the first part relates to what the status quo should be, including treatments, outcomes, and implementation processes related to the values of the program. Chen calls this prescriptive theory (also called normative theory), which guides program planning, formulation and implementation. The second part relates to the causal mechanisms that link relationships among treatments, outcomes, and implementation processes (Ibid.:43-44).

As a result of my methodological considerations I decided to regard needs analyses as evaluations and LCPP as a program to be studied through evaluation research. In the following, the two selected foci of the evaluation will be discussed: the utilization focus and the stakeholder focus. The focus on the utilization of the results to the benefits of the users is a central concern in this evaluation.

Based on Patton, utilization-focused evaluation is a systematic collection of information about the activities, characteristics, and, outcomes of programs to make judgments about the program (here: LCPP) in improving program effectiveness (Patton 1997: 23). The evaluation plans for use before data are even collected, which was the case with all the needs analyses before they were started. Utilization-focus evaluation is done for and with specific intended users for specific inteded use (Patton 1997:23). Utilization-focused evaluation is carried out on the basis of fourth-generation evaluation as developed in the work of Lincoln and Cuba (1985), which is collaborative, and seeks for change. It is a socio-political process that is simultaneously diagnostic, change-oriented and educative for all parties involved (Lincoln & Cuba 1985: 141). This is what the seven needs analyses have been: diagnostic, change-oriented and educative for the language stakeholders involved in the processes.

It is worth mentioning that in evaluation processes it is relatively difficult to establish cause-effect chains of interpretation. Rather, as in qualitative inquiry more broadly, it may be possible to establish interdependencies between elements. It is true that not all the seven needs analyses are clearly utilization-focused evaluations, whereas NA5 clearly is, with clear objectives (Questions Appendix 5 and 6). The focus of utilization-focused evaluation is on intended use by intended users (Patton 1997:20). It requires moving from the general and abstract potential audiences to the real and specific: actual primary users and their explicit commitments to concrete, specific uses (Ibid.:21). Since no evaluation can be value free, the evaluation must answer the question of whose values will frame the evaluation by working or through clearly identified, primary, intended users who have the responsibility of applying evaluation findings and implementing recommendations (Ibid.:21).

Utilization-focused evaluation does not advocate any particular evaluation content, model, method, theory or even usage. Rossi, Freeman & Lipsey (1999) represent a slightly different view of program evaluation as a systematic application of social research procedures in assessing social intervention programs. This, according to Patton, defines evaluation research, not evaluation itself. Here we need to make a distinction between evaluation research and program evaluation itself, or as Patton puts it, “a hybrid that tends… to be more knowledge-oriented than action-oriented” (Patton 1997:24). Program evaluation may use various research methods to gather data. Evaluation research is conducted for the purpose of discovering new knowledge, testing theories and generalizing across time and space. In brief, this research aims at producing knowledge after the processes of the seven needs analyses have supported action, language teahcing or language training organization in different contexts.

This fairly detailed account is necessary to justify why I have chosen to regard needs analyses as evaluations whereby language training/education (LCPP programs) have been influenced through interventions such as changing market offering or curriculum change. Through the use of evaluation research I aim to construct knowledge of LCPP, based on existing knowledge, and anchored in the evidence of the NA1-7 data.

Stakeholder focus

While examining the material of seven needs analyses, it became evident that the needs analyses had been conducted by a variety of interested parties. The problem arose of what to call these parties who had an interest in financing, planning and implementing the needs analysis and then utilizing their findings. The list of ‘agents’ would be long. Evaluation research provided me an applicable term in “determining who the primary intended users of the evaluation are” (Patton 1997:41). Patton also noted that “people, not organizations, use evaluation information” (Ibid.:43). The term ‘stakeholder’ has been borrowed into evaluation research from management consulting, having been coined at the Stanford Research Institute in 1963 as a term for describing people who were not directly stockholders in a company but “without whose support the firm would cease to exist” (Mendelow 1987:177).

> Stakeholder management is aimed at proactive action – action aimed, on the one hand, at forestalling stakeholder activities that could adversely affect the organization to take advantage of stakeholder opportunities… This can be achieved only through a conscious decision to adopt the stakeholder perspective as part of strategy formulation process. (Mendenow 1987: 177-178)

A number of stakeholders in society may have interest in promoting LC skills due to commercial, political and self developmental and educational interests. Based on the earlier discussion of national language policy it has been shown that the public education policy is not really built on multiple stakeholder thinking: As indicated in the Takala model (1979), Appendix 1, it is mainly based on learner needs and understanding of the society as the supporter and financer of a language program to the citizen, not itself as a requirer of language resources.

In this study, four stakeholder groups were selected that all have an impact on LCPP. They are: language training organizers in companies; trainers, teachers and teacher-researchers in both private and public education context; learners, both pre-service and in-service learners (as future or present employees); and finally, national policy makers, whose language program policy making influences the quantity and quality of existing language and communication resources.

Literature on stakeholder evaluation (Chen 1990; Patton 1997; Clarke 1999) suggest that multiple stakeholders cause problems for evaluation, for example concerning which of the different stakeholder perspectives should be given relative importance (if there is no consensus). Every program has its supporters and critics: evaluation is welcomed by some and rejected by others. The evaluator may encounter problems in communication with different stakeholder groups, and misunderstandings may occur. However, multiple stakeholders illuminate a program from various perspectives and gives strength to perceiving the phenomenon in a balanced manner.

4.2 Research Design

The research design in this study is composed of a two phases of evaluation: in the first, the focus is on the types of methods used; and in the second, the focus is on the LCPP construct of the needs analysis findings from the point of view of the selected stakeholders, as shown in figure 1.

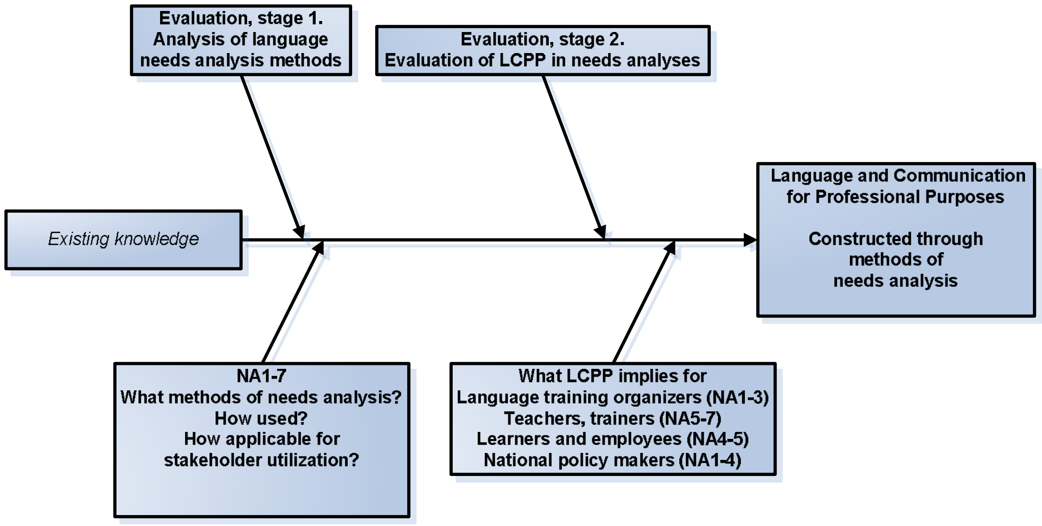

Figure 12. Research design.

The literature review in Sections 2 and 3 laid down the theoretical foundations of the existing knowledge, the left hand starting point of the arrow in figure 12. The multidisciplinary conceptual framework of LCPP is shown to be built on communication theory in social studies, but based on applied linguistics. The present Section 4 has justified the choice of method, explaining why evaluation research was chosen over historical analysis, action research or case study. This section also shows how the research material was collected over a 20 year span, from 1989 to 2008.

Section 5 analyses each of the applied needs analysis methods and their value to stakeholders, thus answering the first research question: How have different language needs analysis methods been used to examine language needs in technology-oriented industry and business?

Section 6 addresses the content of LCPP, using evaluation research and producing an LCPP construct based on stakeholder interests: language training organizers, teachers, learners and national policy makers. The results are compared with existing theories of Sections 2 and 3, and proposals are made for LCPP theory, as appear from the results of the needs analyses. Section 6 thus focuses on the second ad the third research question: What are the defining characteristics of the emergent construct of LCPP arising from different stakeholder perspectives in the needs analyses? How are the industry and business language needs considered in Finnish national language education policy?

Section 7 summarizes the results and formulates initial LCPP theory.

4.3 Data of the Evaluation Research Phases

The seven needs analyses yield responses to the research questions in the following way. Regarding the first research question of needs analysis methods used, all the seven needs analyses are examined, described, and exemplified in section 5. This Stage 1 evaluation exemplification, description and analysis of needs analysis methods occurs in Section 5, based on the categorization of Long (2005). Not all of Long's needs analyses methods (18) occur in NA1-7. The data of needs analysis methods are the following: NA1-2: short replies in questionnaire surveys; NA3: the same plus interview transcripts of eight interviews, NA4: short replies in questionnaire surveys, NA5: discussions logs, teacher portfolios, short replies in surveys, evaluation reports, NA6: 14 frameworks of reference in Finnish and NA7: six CEF Professional profiles in English. This data is analysed inductively as described in subsection 4.4.

The needs analyses used for description and evaluation in Section 5 are selected on these principles: The selected needs analyses add on somehow to the existing body of knowledge. A needs analysis method is described and evaluated if the conceptions of its content differs from the conceptions of existing knwoledge (5.1 Domain expert intuitions and 5.4 language audits). Repetition of previous kinds of needs analyses such as questionnaire surveys are not described (as they can be described based on existing knowledge, Section 2.6.4), they are only evaluated (5.2 surveys). Thirdly new applications of old needs analysis methods are both described and evaluated (5.3 interviews, 5.5 discussion logs an portfolios, 5.6 case studies). Morever, new types of needs analysis methods are included (5.7 professional profiles or frameworks of reference). Conclusions as to their applicability to needs of the four selected stakeholders is evaluated in the light of both the collected data of NA1-7 and existing knowledge.

Regarding the second research question – establishing an initial theory for LCPP – the same needs analyses are analyzed again with a focus on the contents of LCPP, using all needs analyses to the extent they provide input for the four stakeholders: Needs analyses 1-3 illuminate the language training organizer view (S1), NAs 4-7 the teacher view (S2), NAs 4-5 the learner view (S3) and NAs 1-4 the national policy makers' view (S4). The values of these intended users are evaluated in light of their intended use of LCPP in section 6. This analysis is formulated into a program theory for each of the stakeholder groups. Conclusions about 'future programming' (Patton 1997) are drawn first for each stakeholder group separately, then merged into a theory of LCPP. Relevant findings of all the needs analyses illustrate the conclusions drawn from the material.

The inductive qualitative analysis of Stage 2 evaluation (see figure 1) occurred as follows: The open-ended replies concerning the organization of language training were content analyzed and evaluated in view of the utilization in their LCPP. After the clustering of similar elements, open-ended replies were translated and samples selected for the written report.

Regarding the third research question of language needs considered in national language education policy, this evaluation is inbuilt in the Stage 2 evaluation as one of the four stakeholders: national policy makers.

4.4 On the Emergence of the Eight Principles of LCPP in Inductive Analysis

Some details of the conducted content analysis are now in place. The content analysis was originally meant to be deductive, categorizing the responses to Stern's categories of General Model for Second Language Teaching (1984), as was done in my licentiate thesis (Huhta 1997). As the work progressed, this categorization was discarded in favor of looking at the data of the two other stakeholder groups of teachers and learners. Stern's categorization would have yielded a rich repertoire of general language teaching features reported in existing literature but would simultaneously have failed to address the essential, differentiating features of LCPP from general language teaching. Therefore another round of content analysis was done inductively, paying attention to the characteristic nature of LCPP. In retrospect some of the emerging principles match some of the absolute and variable characteristics of ESP, as reported in 2.1, however, the procedure was inductive.

This is how the first principles of LCPP course design began to appear inductively, exhibiting the nature of LCPP in a much more characteristic manner than the Stern classification of Level 3 of Practice including objectives, content, procedures, materials evaluation of outcomes (Stern 1984: 44).

The titling of these appearing points, nominated as principles was an exploratory, tentative process, where numerous open replies were grouped and regrouped; named and renamed repeatedly, iterating the process. For example, the first 'principle of scoping' appeared in the examination of S1, language training organizer perspective. On reading and rereading respondent comments on many features of 'good courses' a few ideas for naming the element appeared. There were comments about targeting the course, specifying the participants, course contents specified, and items about relevant focus, items about industry- or profession-specific content and relevance of content to the learner group.

Several terms were considered for naming this content cluster: objective, goal, focus, relevance or targeting. But any of these terms would not communicate the special nature of LCPP as including profession-specific and industry-oriented content, communicated in the comments, to be narrowed down to a reasonable learning block to the right people. Therefore it was finally decided that the term 'principle of scoping best matched this aspect, especially as Hutcheson & Waters (1980), Hyland (2002) and Huckin (2003) have discussed the question of 'wide angle focus' Hutcheson & Waters (1980), and 'narrow angle focus' Hyland (2002) and Huckin (2003) of ESP, taking a stance to the question of specificity of ESP. The principle of scoping thus entails elements matching the narrow angle focus of narrow targeting, specified content, participant identification and match to needs and relevance of focus, in line with Hyland and Huckin.

A similar process was experienced for the other emerging principles, starting with the first stakeholder group, language training organizers. The data provided input on the principle of scoping (1), grouping (2), realistic extent and course format (3), professionalism (4) and empowerment (5) and authenticity (5).

For the principle of grouping the input by language training organizers (NA1-3) related mainly to a group concept in groups smaller than 12, to be grouped by position, occupation, interest or language level. For higher education contexts the principle of grouping gained new contents in contexts of group sizes of 30 and more, relating to proper diagnostic testing, matching grouping to language level and - very closely to principle of scoping - establishing separate groups for different degree program specializations. All comments relating to establishment of groups was then named as 'principle of grouping'.

The data on the stakeholder groups of teachers (S2) and learners (S3) in Stage 2 evaluation (figure 1) were mainly in the format of discussion logs and portfolios, some in open-ended responses. These materials are all in Finnish. An effort was made to use the NVivo program to code material in Stern's categories, but the use of NVivo was only partially successful. As NVivo required an extra translation phase, it was eventually discarded, and the Finnish material reworked into evaluation research categories of LCPP values, intended use, intended users, program theory and future programming. The color-marked parts of the Finnish text were translated to English. This data categorized for evaluation was re-examined deductively, under the principles that had emerged in the scrutiny of the first stakeholder group of language training organizers (S1), leaving space for inductive reasoning. This is how some new categories for S2 and S3 appeared besides those six appearing from the analysis of S1.

When the data for the stakeholder had been examined, and the principles gradually distilled into a total of eight characterizing elements, to be called 'principles'. The emergent principles are principle of scoping (1), grouping (2), realistic extent and course format (3), professionalism (4), empowerment (5) and authenticity (6), defined in Section 6.1. Two additional principles appeared later, that of the principle of authorization and anchoring (7), appearing from the teacher perspective (Section 6.2) and the principle of agency and autonomy (8), which was introduced by learners (Section 6.3).

The evaluation of S4, language policy making perspective was done differently from the other three perspectives, as the evaluatable data was mainly in quantitative and partly qualitative format. The results of needs analyses (NA1-4) were evaluated in view of interdependency with national language policy making or development of the language resource base. The interdependency of national language policy making and language and communication resources in business and industry is evaluated as two interdependent elements. First, to what extent language and communication needs potentially influence the national language program policy making, and secondly, to what extent the language resources of business and industry personnel being influenced by the output of language resources produced by the formal education policy. The messages of NA1-4 to language policy making were evaluated and compared to the described status quo of current national language policy, described in Section 3.2. The objective of this evaluation was to examine to what extent needs analysis results serve national policy making (and what can be done if not), and to what extent national language education policy meets the expectations of business and industry (and what can be done if not). The inductive analysis, through which the principles of LCPP education and training emerged was tedious phase of tagging, clustering, questioning, renaming and iteration, but resulted in a meaningful emergence of significant knowledge.

Finally, it belongs to the character of qualitative reasearch that data may be inconherent and difficult to categorize, as informant responses may not simply answer a question, but discuss issues in the vicinity of the question- sometimes not answerting the question at all. Thus the representation of samples in section may relate to one or two, even three ‘principles of LCPP’ a the same time, in the same sample. The researcher taken samples as they are given in the original, underlining the principle to be exemplified by the quote of the sample.

4.5 Research Contexts

This study examines LCPP in two main contexts, public and private, whose borderlines are not by any means clear. The first context is the corporate context of language training within companies and outsourced by companies to language training consultancies and service providers. This context is predominant in needs analyses 1-4. The second main context is the context of higher education (universities of applied sciences), which is predominant in needs analyses 5-7. The educational context is blurred, since NA4, NA6 and NA7 also involve science university contexts and NA4 and NA7 also involve vocational education contexts.

The language teacher groups that LCPP may be relevant to concern 17 University language centres. The number of their teachers can be counted in hundreds (Finelc, The Network of Finnish University Language Centres). In the 27 universities of applied sciences there are around 1000 language teachers (Huhta 2008). The number of schools in secondary vocational education is 145 schools with about 1289 language teachers (Väyrynen et al 1998). The context of ESP concern at least 3000 teachers in the public sector, and hundreds in the private sector. Since corporate language education and universities of applied sciences are the main contexts of LCPP in this study an introduction of the main contexts is now in place.

4.5.1 Corporate Language Training as a Language Teaching Context

NA1-4 occur in the context of corporate language training (for details see Appendix 3). Corporate language training can occur in companies where employers coordinate language training to human resources units, or departments themselves take initiative to organize language training courses. In the 1980s and 1990’s companies could have nominated persons to cater for language training. Companies can thus purchase and order language training services or organize language training themselves or both. (Huhta 1997) The second group of LT organizers are language service providers themselves, in other words private language schools, university adult education centres and other public organizations that sell and develop language programs on commercial terms (Huhta 1997: 87-96). Based on company-reported information in NA2, market in Finland for major companies in 1994 was composed of such training organizers as the Institute of Marketing, the AAC Institute, Fintra, Linguarama, other public education institutions, the Kasanen Group, language schools abroad, university, commercial college, Kielipiste, Richard Lewis Communications, Marcwort, Languista, M-opetus, travel agent and other (Huhta 1997:91).Today's market is unclear, as statistics is collected for language training service (category of kielikoulut ja -opistot) alone, and institutions which offer language training alongside with other kinds of training are not therefore listed. Statistics Finland reports on 164 language schools and colleges in 2008, many of which are small one-trainer firms (Statistics Finland 2008). This list does not include major training companies where language and communication training is part of other training activities such as Fintra, Institute of Marketing, or university continuing education centres, which also offer language training as part of their operation.

Fintra/The Finnish Institute for International Trade, formerly Vientikoulutussäätiö is a sample of a service provider of international business training, including language and communication training. The service provider is a well-established business training organization, which operates in the field of global business training and business language training. The company is specialized in providing training services for Finnish companies that are either starting global business or ones already active in this field for almost 50 years. Languages and communication have been part of its operations since 1970's. (Fintra website).

As we saw in the review of 2.5, the predecessor of Fintra organized one of the earliest series of interviews in companies to identify language needs (Vientikoulutussäätiö, VKS, Keinonen 1978). At the end of 1970's VKS had already published an English study material named Construction - English for project exporters, including six sound cassettes on authentic construction business cases. This started a production of company-based, authentic language study materials in 1980's, and a consistent development of suitable service offering for in-service company personnel, based on needs analysis of incoming corporate groups. The service offering included such elements as tailored offerings of business content and language training, suggestopaedia, and tailored programs for individual companies. VKS also organized regular surveys of those graduated from the two-year Export Manager program, to keep up with changes in the developments of the language need (Davidsson 1983, 1990) and surveys to understand the developing needs of large companies (Huhta 1990, 1994) and SMEs (Koskinen 1994). With these measures taken into account, it can be recognized that VKS/Fintra was a predecessor in language training of its time.

In NA1-4 language training is examined in the above contexts: globalizing Finnish exporting and importing firms, as detailed in the listing of Appendix 3.

4.5.2 Higher Education as a Language Teaching Context

The second main context where LCPP is implemented s higher education institutions. NA5-7 occur mainly at universities of applied sciences, although NA4, NA6 and NA7 also involve university of science contexts and NA4 and NA7 also involve vocational education contexts.

Universities of applied sciences did not exist as a permanent establishment before 1995 (Liljander 2002); therefore NA4, for example, developed both vocational school teaching and the former UAS institutions (opistoaste). Language teaching at UASs is regulated by legislation. Legislation states that the student must possess "such written and oral skills as are needed for the profession and professional development in the field." (Universities of Applied Sciences Decree 2003) This decree is detailed as a mission statement formulated by the Foreign Language Development Group of ARENE, Rectors' Conference of Finnish Universities of Applied Sciences as follows:

> The mission of universities of applied sciences (UASs) is to provide the student with the language and communications skills needed in specialist positions in the increasingly international working environment and business life.
>
> The UAS language education emphasizes students' capabilities for interaction across languages and cultures and the student's own professional development. The development of Language and Communication for Professional Purposes is based on national and international research and aims to sustain international transparency and competitiveness. (ARENE language group 2006)

Universities of applied sciences (UASs) with about 140 000 students (Amkota Statistics 2007) employ approximately 1000 language teachers to run the current language program. LCPP teachers have long recognized the need for specialized teacher education and training. The Ministry of Education relies on the university departments of education and UAS teacher training institutions to take care of the language teacher education.

LCPP development activity has taken place in diverse areas of language education to be developed within the universities of applied sciences. Since their establishment 1995 (Liljander 2002) the development activity has been focused on the overall development of the UAS language education system (Sajavaara 1999, the ARENE language group, Kantelinen& Heiskanen 2004, Kantelinen& Airola 2007), evaluation studies (Löfström et al 2001, Löfström et al 2002, Oulu & Seinäjoki UAS (forthcoming), language needs analysis studies (Huhta 1997, Huhta 1999, Penttinen 2003, Airola 2004), performance testing (Airola 2001, 2003; Juurakko 2001, Juurakko-Paavola 2005), directions of language education for professional and occupational purposes (Jaatinen 1998, Jaatinen,Lehtovaara & Kohonen 2001; Juurakko & Airola 2002; Huhta, Jaatinen & Johnson 2006), intercultural communication (Korhonen 2002, Huhta & Johnson 2005, Johnson forthcoming) and integration of professional studies and language (Rauto & Saarikoski 2008) and ICT in language education (Johnson 2001, 2006a, Johnson & Ala- Louko 2005, Ala-Louko, Scheinin & Johnson 2004).

At the end of 1990s LCPP teachers began to focus on needs analysis study for business and industry, and other fields. Groups of LCPP practitioners have initiated and kept up networks of practice. Coordinating LCPP teachers meet four times a year, teachers in technical fields have been holding annual conferences since the 1980s, and teachers in social and health care launched a conference in 2005. All UAS teachers have biannual conferences, a recent one with 260 participants being held in Tampere in 2008. An official ARENE working group was established in 2002 and has issued guidelines for some aspects of LCPP activity. The work of the ARENE language group 2002-2008 is being continued by the National Language and Communication Specialist Team, elected by UAS language coordinators in September 2008. More and more publications have started to appear, which shows a degree of gradually established LCPP practice. A listing of empirical projects and research published in LCPP in professional fields is being maintained by the community (ARENE language committee List of publications at UASs).

These two contexts - company language training context and higher education language teaching context - are the main environments where LCPP is applied in this study.

4.6 Research Material of Needs Analyses 1-7

This subsection describes the seven needs analyses used as research material of this study. Appendix 3 provides a brief overview of these, followed by a more detailed account of each needs analysis (NA1-7), including data collection and analysis details.

4.6.1 Needs Analysis 1. A Study on Effective Language Training 1989-1990

NA1 (1989-1990) was commissioned by the Language Department of the Finnish Export Institute (Finnish Export Institute / Vientikoulutussäätiö, VKS), where I was employed as training manager at that time. Prior to this NA, the Finnish Export Institute had conducted PFA surveys (Davidsson 1982, 1990) – surveys to identify the language needs of graduates of the Export Manager programs, 1-2 year programs for personnel with degrees from university or secondary level institutes and 3-5 years of work experience, mainly technical or commercial. The management of VKS was easily persuaded to conduct a needs analysis with wider coverage than their previous surveys so that they could gear their services closer to customer needs. The aim of NA1 was to find out the needs for languages in large companies, needs for language training for groups of personnel, and market data for planning a course offering.

As for method and data collection of NA1, a questionnaire survey was sent as office mail to the addressees to collect data. The Customs Administration statistics (Tullihallitus 1986) were used to select the 100 largest import and export companies as the target group. Each company was phoned to find a person who was in charge of language education in human resources (HR): companies gave one or several contacts, for example by location or unit. The list eventually comprised 153 companies, as some companies occurred on both the importer and exporter lists. The list of addressees totaled 253 after companies had submitted their contact persons. The questionnaire covered background questions (company size, field of operation, language coordinator's responsibilities), information on current and future language need, language training questions (features of successful/unsuccessful courses, used/recommended course types, budgeting, monitoring, competitors), and an evaluation of the language level of selected target groups. The response rate to the survey was 24%, as 60 out of 253 addressees responded.

The data of NA1 was analyzed using a tailor-made computer program[3]. The open replies were recorded on spreadsheets and clustered through content analysis. The results were used by Vientikoulutussäätiö as soon as they were available in 1988. The results were summarized in an internal result report in 1990. They were used as guidelines for development and never published. The data of NA1 are used in this study for drawing conclusions concerning the intended use by intended users of two stakeholder groups: language training organizations and HR departments (S1) and national policy makers (S4).

The respondents' replies evaluated in this study are open replies to question 38 on successful and unsuccessful courses, which will be discussed in Section 6, Utilization of needs analyses.

Researcher role in NA1

The researcher was then training manager and designed and implemented the questionnaire survey in the interests of the VKS language department, which provided language training courses and language materials for business personnel. The results were needed for being able to create targeted language material and to develop new services.

4.6.2 Needs Analysis 2. Corporate Language Resources 1993-1994

The second needs analysis (NA2) in 1993-1994 was commissioned by the same institution as NA1. The official name of the institution had by that time been changed to the Finnish Institute for International Trade (Fintra). The method selected was a questionnaire survey, to be complemented later with a series of interviews. The project was requested by the Confederation of Finnish Industries to predict to what extent language needs were changing as the result of the ongoing major recession and rapid developments in the EU and Eastern Europe. The

[3] Drawn up by Erkki Mikkola, an IT consultant.

sponsors predicted changes in the political and economic environment of Finland and therefore saw a need for conducting a language needs survey, similar to the previous NA.

In NA2, the Customs Statistics of Foreign Trade were also used to identify the largest exporting and importing companies in 1992 (Customs Administration Statistics 1993). The names of corporate HR respondents were collected by the unit secretary from the Confederation of Finnish Industries either through their contact files or by phoning the companies. The list of 143 names was delivered to Fintra on December 29, 1993. The questionnaire was sent out on January 2, 1993 with a return deadline of January 20, 1993. 54 replies were received, making the response rate 37%.

The questionnaire covered background questions (corporate sphere of operation, company size, role of respondent, manner of organizing language training), the most important languages, current language need, the most urgent language needs, whether needs analysis or language testing had been conducted in the corporation, language training questions (features of successful/unsuccessful courses, used/recommended course types, use of PC-based language programs, budgeting, monitoring, competitors, knowledge of Työelämän kielidiplomi (a language examination under development at that time), and an evaluation on a scale of 0 to 5 of the language level of selected target groups and experienced problem areas in language skills. Respondents were personnel or training managers (43%), personnel or training secretaries (15%) or other managers (16%), n=53.

Data analysis and reporting in NA2 the data were processed using the tailor-made computer program as in NA1. Open replies were recorded on spreadsheets and clustered through content analysis. More standardized categories were used than in the previous survey; for example standard corporate size classes were used. The results were compiled in a short report and published in the Fintra series (Huhta 1994a).

The data of NA2 are used in this study for drawing conclusions concerning the intended use by intended users of two stakeholder groups: language training organizations and HR departments (S1) and national policy makers (S4)

Researcher role in NA2

The researcher designed and implemented the questionnaire survey on behalf of the Fntra language department, which provided language training courses and language materials for business personnel. The results were needed to be able to write authentic language material and to develop new services (what kind of courses, priority of languages).

4.6.3 Needs Analysis 3. The Dynamics of Language Training 1997

NA3 examines the roots of language training using Stern’s General Model for Second Language Teaching as a framework of reference (Stern 1984) and

Byram's Language and Culture Teaching Process (Byram 1989:20). The researcher conducted the study as a licentiate thesis for the English Department at the University of Helsinki, on a grant from the Finnish Cultural Foundation. The study was conducted through interviews at the end of 1994, case studies in 1994-1996 and analysis and reporting in 1996-1997. The main research objective of the study was to see to what extent language training in business companies meet the needs of business communication in English.

NA3 uses the results of NA1 and NA2 as part of the analysis. NA3 also involved eight interviews to gain a more in-depth view of the details of corporate language training than in the surveys of NA1 and NA2. The method of semi-structured interviews was used. The interview questions are documented in Appendix 4 (Huhta 2007: 232). The interviews were conducted with some of the same companies as in follow-up work at Fintra in October-November 1994.

The eight interviewees came from the Helsinki metropolitan area, elsewhere in Southern Finland and the Tampere area. They represented the paper industry, electro-technical industry and metal industry. The operations of their companies relate to the manufacturing and marketing of paper, the manufacturing and development of electronics and electrical engineering, and the manufacturing and sales of metal industrial products. International operations form a significant component in their turnover, in some cases accounting for up to 80-90%. The interviewees were personnel managers, training managers, personnel secretaries and an office manager. Based on NA1-2 and the interview findings, NA3 proposes some principles for language training activity (Huhta 1997:173-177).

The interviews were tape-recorded and transcribed in writing. Content analysis was used to cluster ideas that occurred in the interviews and reported further. In this process, seven quality features of language training were identified in the interviews and surveys NA1 and NA2 as contributing to quality language training. These seven features were then used to analyze the language training of the eight sample companies. The study was published by the National Board of Education (Huhta 1997).

The data of NA3 are used in this study for examining the perspectives of language training organizations and HR departments (S1) and national policy makers (S4), and for sampling the method of interviews.

At the level of methodology – how LT occurs in practice – the results concern the implementation and evaluation of LT from the organizer perspective. The implementation of LT practices relates to target languages and needs (Ibid: 97-119), levels of skills and testing (Ibid: 100-114), course type and extent (Ibid: 115-121) and reporting and monitoring systems (Ibid: 122-127). Language training organizers also evaluate how they see and experience LT in collaboration with LT partners and learners. Respondents evaluate two kinds of courses, good ones and unsuccessful ones, by a number of factors: purpose and target group (Ibid: 131-134), course type (Ibid: 135-143), group size and attendance (Ibid: 144-146), teacher and materials (Ibid: 147-152), and the reasons for the success or failure of a course (Ibid: 153-156). The results of good and unsuccessful courses are evaluated and described in this study.

Method of inquiry of evaluated data

The precise question to the respondents, amongst many other questions, concerned 'really good' and 'less successful' courses and was formulated as follows:

> 38. Think of a language course which you felt was *really good*. Please describe the course you chose:
> 1 Course format and length, 2 Purpose, 3 Target group, 4 Size of group, 5 Material, 6 Attendance, 7 Learning results, 8 Qualities of the trainer, 9 Price, 10 What were the reasons for the success of the course?
>
> The negative option was formulated as follows:
>
> 39. Choose now a course you felt was not successful. Describe the course. (Corresponding 10 questions asked). (Huhta 1997: 129)

The questions were replied by HR coordinators in open-ended replies. The responses to open-ended questions were originally analyzed using content analysis and clustering to themes. The themes became: purpose, target group, course type, size of group, attendance, teacher, materials, reasons for the success of failure of course (Huhta 1997:129-156), based on Stern's classification of second language teaching methodology (Stern 1984:44). For this study the responses were re-evaluated using inductive content analysis, and searching for key elements that could contribute to the utilization of LCPP in business language training. Language training organizers evaluated the quality of 102 courses, 62 that they named as 'good courses' and 40 that they named as 'unsuccessful courses' in open-ended replies. This is how the principles of LCPP course design began to appear, reported in the following.

NAs 1-3 short replies and interview transcripts were analyzed in this study using inductive as will be reported in Section 6.2.

Researcher role in NA3

At the time of NA3 (1994-1997), the researcher was employed by the Helsinki Institute of Technology, later to become Helsinki Polytechnic Stadia, as Lecturer and from 1995 as Head of the Language Centre within the Faculty of Technology. The interviews were conducted while the researcher was still a Fintra employee, but the analysis and the reporting were completed in 1996 on leave of absence from the Helsinki Institute of Technology.

4.6.4. Needs Analysis 4. Prolang 1996-1999

The Prolang development scheme (NA4), named Laguage/Communication Skills in Industry and Business and implemented in 1996-1999, combined the interests of three parties: the Finnish National Board of Education (NBE), language teachers and developers within vocational educational institutes and schools, and a European Leonardo da Vinci project.

The interest of the NBE was to gear the language teaching curriculum towards the needs of working life. Updated research information was essential for developing curricula and methodology, especially with the vocational sector curriculum reform in mind. It was also considered useful to offer decision makers for national language policy research findings on the changes of language needs in workplace communities. These were the objectives the initiating party, the NBE, set for the project.

The Prolang project also made an attempt to empower and train LSP language teachers at vocational schools and polytechnics by offering them membership in the project and a chance to establish closer ties with workplace communities in their areas. It was expected that some might find potential work contacts for trainees and update their know-how of recent developments in the business world. The idea of involving a number of teachers in the research project as researchers may not have served the best interests of consistency in the research method, but for the purposes of teacher training this was seen as the best approach by the NBE coordinator Pirjo Väyrynen and myself as the project researcher. The research process is detailed in the report (Huhta 1999:39-40).

Prolang/Finland became a major national development scheme for improving links between workplace communities and vocational education. It was also part of an EU project partly funded by the Leonardo da Vinci program PROLANG 1997-1999 (Prolang 1997-1999)4. The research question of Prolang related to how language teaching could best equip students with the skills required in business and industry.

The Prolang material to be used in the evaluation study concern language needs now and in the future, communication situations in business and industry, and feedback to language education (Huhta 1999:20-21).

The Prolang needs analysis project (NA4) was a research project but also a practical development program for teachers. It consisted of five training sessions with the 21 Prolang instructors, preparation and planning, and the actual field research in companies (Huhta 1999: 39-40). The field research was conducted through

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[4] The Leonardo da Vinci program aimed at “Developing a Common System for the Recognition and Validation of Language Skills in Occupational Contexts” irrespective of whether the employee was educated formally or had received training on the job. France was the coordinator, represented by DAFCO, Délégation Académique de Formacion Continue. Germany was represented by Verband der Volkhochschulen von Rheinland-Phaltz, Deutches Institut fur Erwachsenenbildnung, Frankfurt and Universität Trier. The agents on the Finnish side were the NBE and the Helsinki Institute of Technology. The role of Finland in the project was to study communication situations at work (Huhta 1999:17-21).

structured interviews and a questionnaire survey. Each selected language teacher from the 21 vocational schools and polytechnics visited three or more companies (Huhta 1999:172), and selected 3 employees per company to respond to the questionnaire. The teacher set out to interview one personnel manager (Interview questions, Ibid: 173-177) and recommend that a minimum of three employees fill out the employee questionnaire (Questionnaire, Ibid: 178-183). The response rate for personnel managers was very high, as all 21 teachers interviewed personnel managers (total =69), so was the response rate for the employees. The minimum of 3 employees/company would have meant 189 questionnaires responded, but enthusiasm and interest of teachers produced a higher number (total=197) (Huhta 1999: 18). The employers represented industry and business; a couple of employers from the public sector were also selected to test the applicability of the method for the health care sector.

Data were collected from personnel managers (Questionnaire A) and employees (Questionnaire B) (Huhta 1999:172-183). Each response was recorded at the NBE in Excel for statistical analysis, which was done by Survo assisted by Kernel Oy and Numantor Oy. The results were analyzed by Huhta in 1998, following which two translators from the NBE translated the communication case descriptions into English. The report was written in 1998-1999 and published by the NBE (Huhta 1999).

The data of NA4 are evaluated in this study concerning feedback to vocational and general education, selection of languages (S4), communication situations and communication cases (S2), language level and employee strengths and weaknesses in language skills (S3).

The question formulation concerning in-service learners is as follows:

16. Assess the strengths and weaknesses of your skills in English. Mark FIVE of your most important strengths in English in column A. Then mark FIVE of your most important weaknesses in English in column B by setting 1., 2. , 3., 4. and 5. in the appropriate box.

Item	**A Strength**	**B Weakness**
1. Participation in conversation		
2. Fluency		
3. Presentations		
4. Reading comprehension		
5. Speed of reading		
6. Writing texts		
7. Knowing sufficiently many languages		
8. Mastery of professional language		
9. Cultural understanding		
10. Grammar		
11. Pronunciation		
12.Listening comprehension		
13. Other, please specify (Huhta 1999:180)		

A similar question was asked from language coordinators as follows:

> **15.** What is your understanding of the strengths and weaknesses of personnel with vocational education? What are their top five strengths and weaknesses? Please mark a number for importance. (Huhta 1999:175)

The Prolang results relate to how companies on the one hand and individuals on the other see their current language needs and future predictions of language needs – and demonstrate that these two points of view are not the same (Huhta 1999:61-69). The results also concern the level of language skills (Ibid.:73-88). Communication situations are at the heart of the Prolang needs analysis.

Researcher role in NA4

In NA 4, Prolang, the coordinator for the Prolang project was Pirjo Väyrynen from the National Board of Education (NBE). As the researcher, I functioned as a project researcher and trainer of the 21 language teachers to conduct the field work stage. I also tested the functionality of the two questionnaires at two companies and conducted the field research at four companies. I collaborated at the statistical analysis stage with the NBE contributors, including two IT companies. I also analyzed the results and wrote the research report in English for the Leonardo program (Huhta 1999:39-40).

4.6.5 Needs Analysis 5. COP-Stadia 2001-2002

Needs analysis 5 (NA5) was the COP-Stadia project, an Evaluation of Language Education, which audited the strengths and development needs of language education at two Finnish polytechnics or universities of applied sciences (UAS), Stadia, Helsinki Polytechnic and Central Ostrobothnia Polytechnic (COP, or KPAMK, Keski-Pohjanmaan ammattikorkeakoulu). Its objectives were to outline recommendations for further development of high quality professional language education. Quality was seen as a positive change agent, and empowering methods were used as guiding principles throughout the process. The project was initiated by Esko Johnson, Principal Lecturer at Central Ostrobothnia Polytechnic, who was the project manager. As a follow-up to the Prolang survey, this project sought to address the issues of language education organization, resources, contents and practices of language education. The study examined to what extent language education meets the needs of the working life, and whether human resources are developed and utilized effectively in the organizations.

Data were collected through self-evaluation, cross-evaluation and an external audit. Language instructors also compiled competence portfolios with information on their competencies and training needs. The philosophy of evaluation was carefully considered at the start, since the initiative for the evaluation came from language teachers themselves. It was considered important to use collaborative methods in the evaluation to empower teachers themselves to benefit from the process and the results. The issues to be examined concerned four areas: A. Organization, resources and use of language education resources, B. Contents, implementation and organization of UAS language education, C. Development of UAS language teaching, and D. Language teachers' professional competences and their development.

The self evaluation of language education in one degree program took place in the following manner. A meeting time was arranged within the degree program manager, their subject specialist teacher/s and all language teachers responsible for teaching in the program. At the meeting, the group evaluated their replies to the questions in categories A (9 questions), C (6 questions) and D (5 questions) (Questions A, C and D: Löfström et al. 2002:74-75, translated as Appendices 5 and 6). A record-keeper kept discussion logs of the meeting for analysis purposes. The data for category D were also complemented by portfolios written by language teachers. The portfolio questions included 11 questions concerning teaching philosophy; professional development as a teacher; pedagogical activity and development of teaching; social responsibility; production of publications, books and presentations; educational background; other work experience and learning abroad; further education; training needs (three priorities); and future and improvement proposals and comments (Portfolio questions Löfström et al. 2002:78-80, translated as Appendix 7). This was presented as a way to reflect on one's own professional identity and competencies.

Cross-evaluation was used to get students involved in the process. The questions of category B relate to the contents, implementation and organization of language education in the particular degree program. The questions were designed for obtaining both student and teacher views of the same issues: deciding on course contents, principles of implementation and making decisions, responding to workplace needs, data availability for course descriptions and performance requirements, taking the student's initial level into account, motivation, workplace-relevant activities, atmosphere, the physical environment of language courses, assessment of oral or written skills, development suggestions and use of self and peer evaluation (Questions B: Löfström et al. 2002:76-77). The evaluation took place from May 2001 to September 2002[5].

The external evaluation committee included representatives of two science universities, one representing language teacher training, and another well established university language center. A representative of a corporate HR from a major company was invited. Two alumni represented both UASs involved, and there were two representatives of student associations from both UASs. The evaluation re-

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[5] The contents and evaluation methods were designed between August and October 2001. The self evaluations took place in degree programmes between November 2001 and March 2002. This was followed by the external evaluation in March-April 2002. The analysis and reporting of results occurred between May 2002 and September 2002 (Löfström et al. 2002:29) The self evaluation and cross evaluations *instructions* to student groups, teachers and program managers are detailed in Löfström et al. 2002:72-73.

searcher was the secretary of the external evaluation committee. Language teachers functioning as project managers at both UASs were present at all external committee meetings. Their names are listed in the report (Löfström et al. 2002:13). The evaluation project also had a steering group, consisting of the rectors of the two UASs, the quality managers from both UASs, one coordinator from the Finnish Higher Education Council and the evaluation researcher. Project managing language teachers of both institutions were also in preparatory and consulting roles at all control group meetings (Ibid: 14-16).

At the local level, both institutions had a design group representing the language education of all faculties. From the whole range of degree programs a sample of degree programs was selected for evaluation. The selection was made by the steering group. Stadia evaluated the degree programs of Electrical Engineering; Telecommunications; Automotive Engineering; Health Care and Rehabilitation; Hospitality Management; and Performing Arts (six out of 29 degree programs). Central Ostrobothnia Polytechnic evaluated its degree programs of IT; Business and Business Management (program taught in English); Tourism; Automation Engineering and IT; Informationsteknik (program taught in Swedish); Health Care; and Classical Music (8 degree programs). Stadia involved 16 language teachers, 13 degree program managers, subject specialist teachers or principal lecturers and 160 students in the evaluations. COP involved 17 language teachers, 15 degree program managers, subject specialist teachers or principal lecturers and 85 students.

The data of the COP-Stadia evaluation include the following:

- discussion logs of self evaluations focusing on language education by language teachers and degree program managers and subject specialist teachers, Questionnaire A, C, D (Stadia 31, COP 13)
- discussion logs of self evaluations and cross-evaluations of language education, questionnaire B, by language teachers and students first separately (evaluation) and then together (cross-evaluation) (Stadia: 160 students, COP: 85 students)
- teacher portfolios (Stadia 21, COP 13)
- brief report (85 pp.) on the evaluation, published by the Finnish Higher Education Evaluation Council in 2002 with questionnaires for self evaluations (Löfström et al. 2002:74-75), for cross-evaluations (Ibid: 76-77) and for teacher portfolios (Ibid: 78-80).

In the evaluation of 2001-02, discussion logs, portfolios and sample material were collected and the collected material analyzed and compiled for the internal committee of 10 members (Löfström et al. 2002:14) and further to the external committee of 9 members (Ibid.:13) to be evaluated. Measures to be decided on were listed at each of the institutions separately.

The teacher portfolio questionnaire was constructed on the Association of Finnish Researchers and adapted to the purpose in the COP-Stadia evaluation process 2001-02. The portfolios were written by 11 full-time lecturers, 2 principal lecturers, 7 full-time hourly paid instructors and 2 part-time instructors in 2002. As for respondent data, the respondents' educational background is an MA in languages, two licentiate degrees; two with a BA. All have completed teacher education, except for two persons. Four have taken another degree besides their degree in language(s). Most have had jobs other than language teaching: training manager, head of department, secretary, librarian, postal officer, correspondent, entrepreneur, research assistant, marketing assistant and journalist. As the discussion logs of NA5 are reported I also link the data to the principles introduced in Section 6.2 for language training organizers, and inductively added other principles.

In this study, the discussion logs of the evaluation proceedings and teacher portfolios are content analyzed and used for increasing the understanding of two stakeholder perspectives: language teachers (S2) and learners (S3) in the following manner.

The data evaluated in this study from NA5 comes from four degree programs: automotive engineering, electrical engineering and information technology, automation and information technology and a similar program informations- och kommunikationsteknik in Swedish; the other three are instructed in Finnish. The questionnaires are given as Appendix 5 (Teachers and SSI questions, Parts A, C and D) and Appendix 6 (Degree program implementation, Part B), as follows:

> Degree programs 1 and 2 (D1, D2 for short): Evaluations A, C, D (organization and resources) of domain experts and language teachers Nov 23, 2001 and evaluation of A, C, D, for language teachers alone, Nov 29, 2001. Evaluation B (implementation), language teachers Jan 10, 2002; Evaluation B, students Jan 12, 2002 and cross-evaluation language teachers and students, Feb 20, 2002. The following groups participated in this evaluation: 2 domain experts, 3 language teachers, 12 students. A total of 17 participants.
>
> Degree program 3 (D3 for short): Evaluations A, C, D of domain expert and language teachers, Dec 18, 2001 and language teachers alone, Dec 16, 2001. Evaluation B, language teachers Jan 10, 2002; Evaluation B, students, March 12, 2002 and cross-evaluation language teachers and students, March 14, 2002 The following groups participated in this evaluation: 4 domain experts, 5 language teachers, 14+13+9 students**.** A total of 45 participants.
>
> Degree program 4 (D4 for short): Evaluations A,C,D, of domain experts and language teachers Feb 5, 2002 . Evaluation B, language teachers, Dec 16, 2001; Evaluation B, students, March 12, 2002 and March 13, 2002 and cross-evaluation language teachers and students, March 14, 2002. The following groups participated in this evaluation: 2 domain experts, 5 language teachers, 1 quality coordinator, 17+13+13 students, A total of 47 participants.

The discussion logs of the evaluation discussions were first categorized by Stern's classification of Second Language Learning (Stern 1984). The outcome was satisfactory, but rather repetitive of previous results, and not really contributing the special character of LCPP. These discussion logs were re-evaluated, searching for principles of LCPP to appear as detailed in section 6.1 using inductive analysis of the discussion logs.

In the results of NA5 the external audit team expressed that the COP-Stadia audit project provided a diverse and reliable account of the state of language education at the two institutions. The true value of the audit will be seen in the future in how well the identified development needs and recommendations materialize in the practices of language education. The audit team predicted good results for both the institutions, as it appreciates how the idea for conducting the language audit emerged from within the organizations and progressed in a collaborative manner and that student voices were heard in the self evaluation (Löfström et al. 2002:11-13, 68-69). External evaluators find it promising from the point of view of the utilization of the project results that both parties view the project as an important endeavor and a way of possessing the evaluation process. According to them, it was one of the strengths of the COP-Stadia project that both parties were well committed to the evaluation process and both institutions were strongly supported by management, and that different groups of personnel including students participated actively in the audit (Ibid:Preface).

The results of NA5 were published as an external evaluation report (Löfström et al. 2002). More detailed documentation was provided for management, and this more detailed documentation provided the data for the inductive analysis of teacher portfolios and discussion logs.

Researcher role in NA5

During the time of the COP-Stadia evaluation I was employed as Principal Lecturer for Foreign Languages in charge of developing language education of in the whole institution of Stadia, with 9,300 students in 29 degree programs within the faculties of Technology, Health Care and Social Services, and Culture. The newly merged polytechnic institution (1996) had a variety of language teaching practices within the conglomerated schools. The motive for the evaluation came from the local need for organizing the activity and for developing some best practice procedures to improve the quality and consistency of language education, and also from national development needs (OPM 1999).

In this project, I coordinated the evaluation activity at Stadia as the local project manager. I also designed and tested the questionnaires with the corresponding COP members (Questionnaire A, B, C, D and Portfolio questions) and listened to and wrote down a relatively high number of the actual evaluation discussions and cross-evaluation occasions. I analyzed the Stadia results in collaboration with representatives of the Health Care and Social Service, Culture and Technology faculties[6]. I contributed to the writing and editing of the report of the Finnish Higher Education Evaluation Council publication on the project. I also produced unabridged self evaluation and cross evaluation proceedings for the external evaluation committee and all Heads of Faculties together with a summary report of the language teacher portfolios for Stadia.

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[6] Mirja Järvinen (Health Care and Social Services), Heikki Tulkki (Culture) and Sonja Erviö (Technology)

4.6.6 Needs Analysis 6. COP-Stadia Frameworks of Reference 2004-2006

Because of the good experiences gained in NA5 between Stadia and Central Ostrobothnia Polytechnic, their collaboration continued. For example, as one developed and adopted good practice procedures for language education, the other tailored them slightly and adopted them. And when the other established a language education strategy, the first one adapted and adopted it. Results could thus be gained for two important development points at the same time, and thus the work load was diminished. In the preface of the final report of this project, the two rectors state that the evaluation shows how profound reflections have followed from the simple evaluation question:

> Does the quality work of language education progress in dialogue with alumni and workplace organizations?

One of the development challenges identified in the COP-Stadia evaluation was how to motivate students with authentic, up-to-date cases and material. To this end, the Framework of Reference project was started. The two institutions decided to do more research on the communication needs of companies and other professional work communities such as hospitals. Around this time, the major European effort in languages, A Common Framework of Reference for Languages, was published in Finnish (2003). It was decided that this project could match the knowledge of the Prolang results regarding communication situations and merge with the ideas of the CEF.

The method of NA6 consists of four parts: 1. developing a tool to describe the communication situations in a field based on CEFR, 2. collecting information on the field by talking to subject specialist teachers, visiting companies and using the teachers own experience and open websites, 3. experimenting in teaching how the tool helps, and 4. writing an experimentation report about the use of the tool. A book was published on the Professional Frameworks of Reference, containing experimentation reports with some more theoretical articles on the foundations of LCPP. The procedure of developing the tool is reported in full in Huhta 2007.

Beyond the COP-Stadia Framework of Reference project, another project with similar aims, named Artemis, was going on. This project involved Helsinki Polytechnic Stadia and University of Art and Design Helsinki and was funded by the Finnish Ministry of Education (Artemis 2004). One of the aims of the project was to mediate the contents of degree programs in arts and culture to newly recruited teachers. For the purposes of Artemis, a simplified version of the frameworks had to be developed, one that could avoid the complexity of the previous version and help the teacher in curriculum and activity design. The Professional Framework of Reference was developed to include the following parts: background factors, language-specific description and general communication objectives[7], as exhibited in Appendix 8.

The Professional Framework of Reference tool was used to describe twelve degree programs within the field of culture (Artemis) and a similar number in all in the fields of business, technology and social services and health care (COP-Stadia) during 2004-2005. The tool provided a number of benefits: it now proved to be simple enough to provide a quick yet informative description of the professions and jobs in the field, including crucial communication situations for interaction and texts in L2 (A). Secondly, especially the contextual information (B) provided a good basis for curriculum and learning activity planning. Teachers' feedback on their experimentation may be found in section 5.7.

The collaborators from the two institutions are described in detail in the footnote[8]. For this study, eight business and technology frameworks of reference (to be detailed in Section 5.7) were evaluated to examine elements of successful communication in the evaluation stage 1. Additionally, teacher portfolios were analyzed to be reported in 6.3.

The results of NA6 exhibit the language and communication needs of several fields using a systematic tool based on previous NA findings and best available knowledge of items that need to be included in such a description of workplace communities and their communication.

NA6 also concerns a learning experience of 14 language teachers and 350 students who participated in the experimented courses. For the purposes of the teachers' learning, they all had to get acquainted with the Common European Framework of Reference for Languages (CEFR) handbook, which covers a very wide spectrum in the understanding of language and communication.

The results of NA6 were published in 2006 (Huhta et al. 2006). For the evaluation research of the present study, the business and industry professional profiles were

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[7] The following tool was developed in Artemis by Sari Hantula, coordinator of language courses in Culture, and myself as the researcher. Based on the experiences of Artemis, this tool was also used in the COP-Stadia Framework of Reference project.

[8] The research work in NA6 was authorized by the rectors of the two UASs, Marja-Liisa Tenhunen and Timo Luopajärvi. The project was managed Esko Johnson from COP and locally coordinated by myself from Stadia and Esko Johnson from Kokkola. The steering group included the above and Ulla Lax from COP and Sari Hantula from Stadia. The other language teachers who created and experimented the field-specific frameworks of reference were Mari Eteläperä, Osmo Kelhä, Minna Paloniemi, Lena Segler-Heikkilä and Eija Torkinlampi from COP and Anne Hannila, Kaarina Heikkonen, Leena Juslin, Mirja Järvinen, Ritva Laamanen and Anitta Liinamaa from Stadia, 14 language teachers in all.

examined and evaluated from the perspectives of intended use, intended users, values and future programming of LCPP to be reported in sections 6.2 and 6.3.

Researcher role in NA6

I coordinated this project and the Artemis project where the tool (Framework of Reference for Professional Purposes) was devised. At the same time, I was one of the field researchers who collected the NA information of the field of Software Engineering. I also tested the Framework of Reference (Software Engineering) in classroom practice and wrote a report in the book. As noted above, I was also a member of the steering group and editor of the publication, negotiating the publishing details with the Chief Editor[9] from Stadia.

4.6.7 Needs Analysis 7. CEF Professional Profiles 2005-2007

NA7 was the CEF Professional project (CEF refers to Common European Framework of reference for Languages CEFR 2001), an EU-funded Leonardo da Vinci project that ran from 2005 to 2007. It aimed to help teachers tailor language and communication courses for professional purposes such as technology, business, health care and law by collecting knowledge about language and communication practices in the relevant discourse communities. The partnership included Finland, Germany, the Netherlands, Hungary, Poland and Bulgaria.

The foundations of the project lay in needs analyses conducted for language and communication in the workplace and in the Common European Framework of Reference for Languages (CEFR, see section 3.5)), acknowledged in European language circles. The project originated in Finland. It was felt that, in spite of all the previous surveys (e.g. the Prolang study; Huhta 1999) on the needs of the working life as regards language and communication, these did not translate properly into the language curricula of institutes of secondary and higher education. Indeed, language course and curricula contents are often based on the intuitions of language professionals or groups responsible for designing the course contents. Language teachers cannot have experience in all specialist fields nor contacts with all the workplaces involved. Therefore some of the course contents may be based on impressions of what needs to be taught without exact information on how language tuition should be organized. The project set out to examine how a solid empirical basis for curriculum planning in ESP (English for Specific Purposes) and VOLL (Vocationally Oriented Language Learning) could be established.

Special attention in this project is placed on “balanced, evidence-based needs analysis methods” (Vogt & Johnson forthcoming), as it was felt that the teacher’s intuition-based knowledge may not be enough to cater to realistic, authentic communication understanding or designing relevant classroom activities to simulate the events of workplace communities.

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[9] Liisa Salo.

The CEF Professional project involved the partnership in the three given activities that relate to this study. Seven professional profiles were created for different fields of engineering, business and law. Five profiles were tested in teaching, and guidelines written for translating the needs analysis results into customized courses (CEF Professional 2007).

For the project needs analyses, professionals working in companies and other organizations in a particular field were interviewed (details in CEFPRO website 2007). Language curricula of the institutes providing vocational and professional language and communication studies were studied carefully. These professionals were asked for information on several aspects of communication. The results of the needs analyses were processed in a special format that was named CEF Professional Profiles. They cover a wide range of contextual information on the communicative situations in the fields studied, detailed below in section 5.7. Profiles for technology were created in Bulgaria and Finland; the business profiles were created in Germany and Finland.

In order to assure quality, it was agreed that the needs analysis procedure must be recorded accurately and documented, unlike in many of the previous needs analyses. Moreover, guidelines were drawn up and distributed in order to secure transparency of their development. The profiles were evaluated by partner organizations and subsequently improved to double-check their quality. Finally, to improve the quality of the profiles they were tested in actual course design and implementation at the partner institutions.

The Professional Framework of Reference tool used in NA6 (for NA5 and the Artemis project, see Appendix 8) was the starting point for choosing a relevant, functional tool for the European project. This was discussed and evaluated, and developed further to meet the expectations of the European partnership. New elements were introduced to the revised tool of this NA, based on the NA4, Prolang experiences. Frequent situations (D) and demanding situations (E) and their descriptions were added as elements to add depth to the listings of contexts, which were at risk of accumulating uninformative lists. A further element was added, a ‘snapshot’ (F), which was to be a narrative about the working day of the professional or a single communication event. More about the background factors are given in footnote 10.

NA7 produced professional profiles in business and technology, and one on law. The gained knowledge about domain expert interviews, surveys and internal and external company data were processed into CEF Professional Profiles, ‘thick descriptions’ of a professional’s language and communication in the organizational setting (see Appendix 12 for the blank template of the CEF Professional Profile and Appendix 10 for a completed profile). The developed grid makes it easier to gain an overview of the communication events and settings, and improves comparisons with other professional profiles.

The methods used for collecting data vary from profile to profile. The methods can be directly observed in the profiles published on the website (CEF Professional

2007) for each profile separately. Additionally they are also discussed in Section 5.7. The CEF Professional project tested the use of CEF Professional Profiles in different contexts. It was found that the profile tool is applicable in the six participating European countries and that the concept is transferable to other contexts as well.

The results of the project were published as a website handbook (CEF Professional Website Handbook 2007), and a hard copy book is forthcoming from Cambridge University Press. The unabridged business and technology profiles (6 in all at CEFPRO 2007) were evaluated for this study and used for increasing an understanding of total communication for teaching (S2) purposes and the evaluation of the CEF Professional profiles as a needs analysis tool, to be reported in 5, 6.3., and 7.3. The CEF Professional profiles are based on a number of interviews and other data as appears in table 6.

Table 6. CEF Professional - NA7 background data

Profile/ Field	Profile to be applied for:	Data types; background data of 35 interviews	Needs analyst
Technology: IT	Bachelor's Degree Program in Computer Science; Master's Degree Program in Computer Science and Software Technologies	Written surveys and oral interviews conducted by Vanya Ivanova as follows: Interview with Angel Stoyochev, QA (Quality Assurance) leader at a Software Production Company for Mobile Devices, Sofia, 15th Feb 2006; Interview with Peter Todorov, system administrator at an International Fair in Bulgaria, 18th Feb 2006; Interview and e-mail correspondence with Krasimir Popov, programmer at a software producing company, Varna, March 2006. Total of 3 interviews.	Vanya Ivanova, University of Plovdiv "Paisii Hilendarski"
Technology: Mechanical Engineering	Degree Program in Mechanical Engineering, specialization in Machine Automation	Description by Anna-Maija Lappalainen, English teacher of Machine Automation students, April 21, 2004; CEF Professional Profile draft by Marjatta Huhta, English teacher of Machine Automation¸students, January 21, 2006; Interviews with Heikki Hasari, Head of Mechanical Engineering and Jari Savolainen, Senior Lecturer in Machine Automation, Jan 27, 2006; Sami Aaltonen, Designer, Elomatic Consulting and Engineering, April 19, 2006; Tapio Martikainen, Regional Manager, Elomatic Consulting and Engineering, April 19, 2006; Esa Ritari, Project Manager, Nimatec, Technopolis, May 2, 2006. Total of 5 interviews.	Marjatta Huhta, Stadia Polytechnic.

Technology: Structural Engineering	Bachelor's degree in Civil Engineering; a Master's degree in Structural Engineering	Description of structural engineering, career options, employers, job descriptions and communications of structural engineers by Penka Taneva – Kafelova (Senior Lecturer in English for Specific Purposes with an MSc degree in Structural Engineering) based on her own experience as structural engineer and university lecturer, January 2006, CEF Professional Profile draft by Penka Taneva – Kafelova (see above) and Esko Johnson (Principal Lecturer in English Language and Communication) based on personal experience of the engineering profession, interviews, research literature and documents), February - May 2006, - interview with Ilia Georgiev, MSc (Structural Engineering), Head of an Engineering Consultancy in Plovdiv, Bulgaria, February 2006, - interview with Shteryo Shterev, MSc (Structural Engineering), Head of an Engineering Design company in Plovdiv, Bulgaria, April 2006, - In the two interviews above the researcher used a paper-based questionnaire which is also available online at: http://www.webropol.com/P.aspx?id=87059&cid=24249162 and also a questionnaire adapted from Koster, C. (ed.) *Handbook of Language Auditing*, p. 22-23. - interviews with Lars Tallberg, Section Manager for Civil and Structural Engineering; Ismo Mattila, Chief Designer, expert in the design of concrete structures; Karl Wikman, Designer, expert in the design of steel structures. Location: Delta Engineering, Finland, April 2006, - pair interview with Simo Rantala, Designer, expert in design of steel and fabric structures; Erkki Laitinen, Designer, expert in the design of steel structures. Location: Coverex Building Systems, Finland. April 2006, - interview with Petko Mitev, MSc (Structural Engineering), Structural Design Engineer at InterDesign – a Plovdiv based subsidiary, of a German world-leading company in metallurgical, petrochemical and chemical plant design, May 2006; Total of 8 interviews.	Penka Taneva, structural engineer and language teacher, Sofia Technical University – Plovdiv Branch & Esko Johnson, Principal Lecturer at Central Ostrobothnia University of Applied Sciences
Law	Master's degree seminars in Polish offered to students of Civil Law, Criminal Law, Administrative Law, Constitutional Law, International Law.	Written survey and oral interviews conducted by the author on these dates and locations: – three interviews at Wierzbowski Eversheds, 14/16 Jasna St., Warsaw, Poland with Magdalena Kolecka (R1), Elzbieta Ruszkowska (R2),Przemyslaw Wierzbicki (R3), Jan 19, 2006; – two interviews at Dziedzic Kielmans,1 Sw.Barbary St., Warsaw, Poland with Jacek Palka (R4)and Malgorzata Bielan (R5) , Jan 24, 2006; - two interviews at Gornicki 'Koncept', 1 Sw.Barbary St., Warsaw, Poland with Ewa Domagala (R6) and Partycja Piotrowska (R7), Jan 25, 2006 ; – two interviews at Salans Oleszczuk, 53 Emilii Plater St., Warsaw, Poland with Magdalena Zak (R8) and Marceli Kasperkiewicz (R9), Jan 27, 2006 and – one interview at Dewey Ballantine Grzesiak, 4 Ksiazeca St., Warsaw, Poland with Michal Fereniec (R10), March 13, 2006; Total of 10 interviews.	Bozena Porecka, Center for Foreign Language Teaching, Warsaw University

Business: Administration and Management	Bachelor of Business Administration	CEF Professional Profile draft by Riitta Purokuru and Hannu Ryynänen based on interviews and background study, May 2006; Interviews with graduates: Mr Eljas Tuovinen; Sales Executive at Unilever; March 06, Ms Satu Hurmala; Spare Parts and Service Sales Secretary at Moventas; May 06, Riina Kinnunen; Export Secretary at Hikinoro Oy; May 06 and Mervi Närhi; Head of Sales Team at Aritherm Oy; March 06. Total of 4 interviews.	Ritta Purokuru, MA, and Hannu Ryynänen, MA, Lecturers at
Business: Assistant in export sales and clerical worker	3-year trainee programme, 3 days in the company, 2 days at the vocational college	Analysis of job descriptions provided by the job centre information service, 13 July 2005; Analysis of curricula (job-related, Standing Conference of Ministers of Education in Germany, statespecific curricula) and materials (textbooks on the German market), 15 July 2005; Interview with three export sales assistants in a large automotive company in Karlsruhe / Germany, 10 October 2005; Interview with an assistant in export sales working in a small steel company, 3 December 2005; Interview with a teacher at a vocational school in northern Germany, 4 April 2006; Interview with a teacher at a vocational school in western Germany, 20 April 2006; Interview with a teacher and teacher trainer at a vocational school in south-western Germany, 21 April 2006; Previous interview data (with assistants or HR managers); Total of 5 interviews	Karin Vogt, Professor of Education, Karlsruhe, University of Education in Karlsruhe

Researcher role in NA7

I was the contents coordinator of the CEF Professional project in charge of planning the research procedure, the development events and the reporting of the project. I was also one of the field researchers collecting NA information in the field of Mechanical Engineering. I also tested the use of the CEF Professional profile in the classroom and wrote the experiment report. I edited the Website Handbook on the project findings, published in 2007, and am the co-editor of the hard copy book to be published in 2010.

4.7 Summary of NA 1-7 Research Material

The data of the seven described needs analyses are examined in the two following sections to describe the application of needs analyses methods (Section 5) and illuminate relevant aspects of LCPP (Section 6) as summarized in table 7.

Table7. Overview of needs analyses to be evaluated.

Needs analysis	Data providing informant	Needs analysis method used	Stakeholder perspective evaluated S1 -language training organizers S2 - teachers, trainers and teacher-researchers S3 -learners, employees S4 - language policy makers
NA1	Language training organizers	questionnaire survey	S1, S4
NA2	Language training organizers	questionnaire survey	S1, S4
NA3	Language training organizers	questionnaire survey, interviews	S1, S4
NA4	Language training organizers, employees	questionnaire survey, interviews	S1, S2, S3, S4
NA5	Domain experts, language teachers, learners	language audit, internal and external evaluation	S2, S3
NA6	Domain experts, language teachers	multimethod needs analyses, professional frameworks of reference	S2
NA7*	Domain experts, language teachers	multimethod needs analyses, professional profiles	S2

*For details of target groups see Appendix 3.

We now continue to see how the above methods have been used, what quality of knowledge they provide about LCPP, and a critical evaluation of benefits and problems for intended users and intended use.

5 EVALUATION OF LANGUAGE AND COMMUNICATION NEEDS ANALYSIS

This section now evaluates the use of need analysis methods amongst the seven described needs analysis projects. This first stage of the evaluation research addresses the first research question of the present study: How have different language needs analysis methods been used for identifying language and communication needs in technology-oriented industry and business?

As reported in 2.5 and 2.6 needs analysis methods have been widely applied, but less attention has been drawn to the needs analysis methods themselves (Long 2005:2) with a few exceptions (Van Els & Oud-de Glas 1983; van Hest &Oud-de Glas 1990). Special attention in this evaluation is paid to new needs analysis practices that differentiate from Long's classification and analysis (Long 2005: 19-76), and thus bring some additional elements to existing knowledge.

The seven needs analyses analyzed in this study represent an increasingly multimethod approach to language needs analysis. Methods that match Long's categorization of 17 methods are such as domain expert intuitions, interviews and surveys, which are all evaluated in this section. Some of his categories receive an extended interpretation though the analysis of NA1-7. For example in this study language audits occur in the context of universities of applied sciences,, which cannot follow the guidelines of language auditing in the private sector, as described in existing knowledge of section 2.6.4 but is still perceived as an additional example of language audits. Moreover, Long mentions the category of diaries and journals, which are not used in NAs1-7. Instead, very similar discourses of discussion logs and language teacher portfolios are used in NA5, which can be considered a variation of Long's category of diaries and journals.

Some NA methods in the research material are not included in Long's classification. These include the category of case studies and Professional frameworks of reference or professional profiles. Case studies, as will be seen in Section 5, can represent various samples of individuals, groups, organizations or cultures, but even events and incidents.

5.1 Domain Expert Intuitions

Domain expert (Long 2005) knowledge, defined in section 2.6.1, was collected amongst the seven NAs using several methods: discussions, interviews, observation, documentation and combinations of these. This is nothing new to existing practice. The informants were engineers and managers from companies (especially in NAs 4, 6-7), degree program managers, lecturers (especially in NA5-7) and in-service adult students (NA4-7). The source informants is nothing new to existing practice either.

A major point concerning expert intuitions is that the knowledge collected from the experts is not limited to understanding an individual class and its students but could become common property of the LCPP practitioner community. This would require that the learning should be documented into formats that benefit the LCPP teaching practice, be based on solid theory and, in the long run, lay the foundation for LCPP practice. The know-how of domain expert can be collected and applied in several ways: taking notes, recording, transcribing, writing event logs.

NA6 documented domain expert knowledge in a system of Professional Frameworks of Reference as described in 4.6.6. The aim of the framework process was to increase the knowledgeability of LCPP language teachers in four main fields (technology, business, social and health care, culture) and describe the content and teaching of assigned professions in a way applicable to teaching. The language teachers were to gather the information through discussions with domain specialists, adult learner classes and interviews with professionals in the field. This element of presenting the outcome of gained domain expert knowledge is slightly new to existing practice, especially as its components were not determined haphazardly, but by examining the CEFR systematically and matching its workplace-relevant parts with the previously received knowledge of NA4, Prolang.

A sample with information filled in for contextual information (B) may illustrate the context part of the documentation of the results of this process. Other parts include giving background information on the communication (A), information about the importance of language learning in the profession (C) and information about general competences required for communication (D), detailed in Appendix 8. Table 8 provides a short sample of part of the Professional Framework of Reference of NA6. The leeter C refers to Core Contents in the curriculum.

Table 8. Sample 1. Needs analysis - NA6. Language-specific data in language and communication context. C= Core content

B) LANGUAGE-SPECIFIC DESCRIPTION (English)

	LOCATION	SOCIOCULTURAL SETTING: persons, communities, enterprises, institutions	LANGUAGE/ COMMUNICATION SITUATIONS	TEXTS
Work DOMAINS Fields of life/ of language use in which the graduate communicates - public, private, professional, educational (CEFR 2001: 80-85)	Working facilities provided by the employer; negotiation facilities Production facilities Premises of the customer or collaborative partner Fairs, conferences, in customer contacts also e.g. restaurants, hotels, premises at the travel destination	**Professional:** appliance suppliers, software enterprises, service deliverers (= enterprises of different fields, cities, municipalities, associations and related organizations); offices of a multinational enterprise in Finland and abroad in the different fields of industry and business; trade union **Public:** bodies of standardization and other experts who produce regulations, directives and standards	Operating in English in the working community - by exploiting knowledge from English information sources, such as manuals, Internet sources, instructions and documents; **C** - by communicating by e-mail and through the Internet; - by handling things by phone; - by taking care of expert and customer contacts face-to-face at meetings **C**, seminars, fairs	Description or summary (company presentation **C**, product presentation, process) Letter (offer **C**, reply) Dialogue (phone call: enquiry, fault detection, feedback, timetable verification) Interactive situation **C** (fairs, meetings **C**, interviews **C**, negotiations **C**, process descriptions **C**) Article, web page, marketing text and text criticism **C** Presentation (technical presentation, presentation of a plan)

Sample 1. Needs analysis - NA6. Language-specific data in language and communication context.(Translation of Huhta et al 2006: 218)

Table 8 is an extract of a 12-page professional framework of reference (See appendix 10). It shows how the knowledge gained through interviews and document analysis has been processed into professional frameworks of reference provide concise listings of language and communication situations where the professional works, including a number of sociocultural settings where the communication occurs and their location. From a linguistic point of view the texts a learner needs to be familiar with are also listed in the fourth column.

Method evaluation

NA6 produced professional frameworks for which information was gathered mainly from domain experts who had gone into teaching. The benefit was that teachers were able to produce a core contents analysis of courses and describe the contents into the new curriculum 2005. The downside was that in the short timeframe of less than an academic year, in some frameworks such as the above too little fieldwork could be done to actually get down to domain experts working in the field. As a result, this description is list-like and not very informative. At the content level, however, the new language curriculum was very well described overall.

As we consider this category of domain expert intuitions, the problem is that Long did not define 'intuition' as a needs analysis method. We must decide whether we refer to 1) the collection of data 2) the analysis of collected data or 3) the result of the gained insight. Long (2005) does not discuss this issue of definition in his methodological article. If a method concerns the first collection stage, does the collection of intuition take place by observation, interview, documentation, combination or perhaps something else? If the second point is the analysis of collected data, perhaps we should in this 'method' think of criteria for the analysis of collected data and procedures through which transcripts and interview logs are analyzed. If, in turn, the result of intuition is the key point, perhaps we should think more closely about ways in which the diversely collected intuitive data could be processed into formats that are usable and applicable for teaching. This leads us to the third output type, represented by NA6 and NA7, methods that compress domain expert intuitions gathered by various methods into a structure.

The Professional Framework of Reference for Languages was used in NA6 (Appendix H) to collect domain expert intuitions in a format that is helpful for course design purposes. It had been discovered earlier that lengthy lists with comprehensive coverage of language aspects were thorough but not helpful enough for course design (Johnson & Huhta 2006:244-49). The framework must provide a solution that compresses the LCPP knowledge into formats that make it possible to use it in teaching. Thus, the second important criterion for a functional framework is the feasibility of the method: a fast, easy and structured method for collecting expert or SSI intuition, gained through discussion, interviews and informal inquiries.

The basis of NA knowledge gathering processes is that the information gained is utilizable in the LCPP context. During the process of NAs 3-7 we learned several points about documentation. We learned, through NA6 (for method description see Section 4.6.6), that expert views provided through evaluation discussions depend a lot on the knowledgeability of the domain expert on language issues. This dovetails with Tarone's statement that the subject matter knowledge of domain is absolutely essential for language teaching, yet when asked about their language needs, most domain experts prove unreliable, not just at the level of linguistic detail but also where higher discourse events are concerned (Tarone 1981).

5.2 Interviews - Unstructured and Structured

NA4, 6 and 7 used structured interviews for the reason that there were a number of interviewees and needs analysts involved, and it was essential that similar content be acquired through all of the interviews (Appendix 4 to language training organizers and Appendix 9 to domain experts). NA3 and NA7 also used semi-structured interviews and open interviews, because in these novel situations it was important to allow the informant to voice intentions and meanings that had not occurred to the needs analyst in advance. Sometimes the interview method was useful for understanding reasons for current practices. In Lincoln & Cuba's words, unstructured interviews are appropriate when the interviewer "does not know what he or she does not know and must therefore rely on the respondent to tell him or her" (Lincoln & Cuba 1985:269)

A sample from NA3 illustrates how semi-structured interview may be helpful for finding out underlying reasons. In this case the survey results from NA1-2 showed that weekly classes as a course format are the most widely used course format despite the fact that they constitute 63% of unsuccessful courses (NA3:135), which really does not make sense: why use a course format that is bound to fail? (Huhta 1997) Sample 1 of NA3 gives a description of what problems arise with an ineffective course such as weekly classes in reference to the point of view of stakeholder 1, language training organizer from one of the major telecommunications companies.

Sample 2. Needs analysis - NA3. Interview transcript.

Interviewee:

When I came to this company, language training was already rolling, it was once a week, there were different levels – we actually had two languages, English and Swedish..., ,... so it didn't work, in the autumn people were there and in the spring people dropped out and soon the group shrank into nothing, what to do?

And all of the costs fell into my department's account. Then I changed it so that I could get the bosses interested and the costs were pulled into their departments, but that didn't help either. The thing is, if a customer calls you have to go and if you are absent once and the following week, then you have an excuse, you won't go in any more; what are you going to do about this thing?

Then it occurred to us, and it was a good idea, we started intensive courses. So now we have tested 160-170 people, diagnosed their level and needs and formed groups of 4-6. And they're just the right kind of groups, you cannot sit still in the group, you have to participate. They have 2+2 intensive days in the autumn, and the same in the spring. For the two days they are there, taken care of by the language trainer and they keep on talking the tar-

> get language, if it is Swedish, they speak Swedish, if it is English, they speak English and between the intensives they have home assignments. (NA3, Interview 4: 69)

The dropout problem is one clearly linked to weekly classes. But other problems for weekly classes can be identified as well, as by the following interviewee, a training assistant from an electrotechnical company:

Sample 3. Needs analysis - NA3. Interview transcript.

Interviewer:
You mentioned that weekly teaching has been going on for a long time and you said it was not good. What is the problem?

Interviewee:
Well, some of the problems were solved in the autumn when we got some new teachers to replace the ones that left, but I just felt that they were in a rut, it was like repeating itself, and there wasn't – well, you know an hour and a half lesson a week, not much new you can do in that time. So time sets its limits, but a little better, really, we're starting to see a little something there, you give them handouts and say this is what we're going to talk about and that's that, that's sort of what it's been like, and since these teachers had really been in these groups for years and years, but now that we have this new one it seems that the approach is different and the participants are enthusiastic. (NA3, Interview 6:96) (Huhta 1997)

The interviewee is aware that there are problems in the course format of weekly study: it has been going on for years, the group seems to be getting nowhere and the informant feels that an arrangement with a double lesson per week is no good for getting towards a goal. What she does not say explicitly (and what emerged in some of the other interviews) is that the objectives of the course are not specified, and planning for a hazy goal is hard to do. And as absenteeism is a problem, the course cannot progress if random selections of people attend each time. The approach of this HR coordinator is to change the teacher, which can help for some time. In trying to gain an understanding of why the most risky course type is the most widely used, the interview material also suggests some motives on the part of the organizer.

The perspective of participant preference and commitment to a course type also comes up in sample 3 of NA3, where the interviewee is a newly employed training secretary.

Sample 4. Needs analysis - NA3. Interview transcript..

Interviewer:
What kind of course is good from the organizer's point of view?

Interviewee:
I like to organize all kinds of courses, really . It is really a matter of taste what is going where, what suits you best. So I could organize almost anything, I don't feel that an intensive or suggestopedic or weekly lessons, that any one approach is better than the others. It depends on the participants which course suits them best.

Interviewer:
Why is it then that most of your teaching is weekly lessons?

Interviewee:
That's what people want; anyway, they have more time for something like that and then they want to keep up on a regular basis. An intensive course takes its time and you have to sacrifice more time during a short period, there are family reasons and intensives just don't fit, so this kind of small-group weekly study is the handiest and easiest way to learn. (NA3, Interview 2:40) (Huhta 1997)

The above extracts are samples of semi-structured interviews where the interviewer presents various questions with the aim of finding out the rationale behind using a course type that is clearly not 'the best' according to the other findings of the survey results of NA1-3. The interviews in the two cases were transcribed from tapes with the accuracy of verbal language, thus non-verbal language was not marked in the transcriptions. This was seen sufficient for the purpose. Recording has occurred in other ways amongst NA 1-7, as will be seen in the following.

Open interviews were also used in NA6 and NA7 to collect expert data on how a mechanical engineer communicates at work. The starting point was to have a semi-structured interview, but as it turned out, each individual had a different sort of expertise which could not be predicted, and therefore it proved wiser to use the unstructured approach rather than constrain the situation with a set of preplanned questions. The interviewees had been given a list of communication situations, and the instruction was to discuss in more detail the events of communication situations for producing learning material. The notes were produced to a format of an interview log.

Sample 5. Needs analysis - NA7. Interview log.

Background: SA (pseudonym for a mechanical engineer) works for a medium-sized engineering company. Currently working on a new project running from 2000 to 2005. His work background from ABB, Elomatic .

English is very little spoken at work; instead daily reading; correspondence once a month. Active in collaboration with clients, e.g. Aker Yards (ship design, Turku) and Metso (paper machines, Jyväskylä).

> Typical jobs relate to situations concerning the hardware design. Programmers build the software, and others deal with the maintenance. The company uses AutoCAD for both electricity and automation. Circuit drawings and component listings are drawn up using Excel.
>
> TM, the boss of SA, is the regional manager and sells the resources of the designers. The (main) project manager is employed at Metso. Parts of projects are distributed to engineering companies who tender for the design and manufacturing projects. TM needs to work at both locations.

Besides interview logs, as above, domain expert input can be processed into an interview report. A frequent telephone call may include the following events, as described in the following format of interview reporting:

Sample 6. Needs analysis - NA7. Interview report by needs analyst.

> A representative from the client calls as the drawing is not clear; this inadequacy may have been discovered by a machining workshop in Sweden that has been assigned the task of manufacturing the part. The client first contacts the project manager who will check the right designer and forward the contact to the designer.
>
> The title board of the diagram includes the following information: Project name, drawing name and drawing number. After finding the same drawing, the detail of the drawing is discussed.
>
> One problem might be that the workshop has not been able to get a component by the specified manufacturer and has used one by a competitor instead. The client asks for permission to be allowed to use the alternative component.
>
> Another problem might relate to a support of a bearing cover. It was discovered that the surface material ended up being too smooth; the reason for this may have been that the tolerance was not marked in the drawing. The workshop called from Sweden and asked about the tolerance. The tolerance class ought to have been H7/h7 (Tolerance classes, J, H, K – how many millimeters of free space; depends on the diameter)
>
> Other problems may relate to the factors that measurements may not match or the numbers of parts do not match (NA7, Interview report 1).

Another example of an interview report may illuminate how communication knowledge can be accumulated using interview reporting.

Sample 7. Needs analysis - NA7. Interview report.

Background: ER (pseudonym for a machine automation engineeer) graduated with a BEng in 1998. His background is with valves manufacturer Neles Control, currently owned by Metso Automation. He has also worked as project manager in Houston, Texas and as a project coordinator, involved in recruitment of project personnel and training them to use the same global project management tools.

ER gives an example of a demanding communication situation:

An Italian customer ordered valve combinations for which a third party inspection is required by the Italian client. The invited inspector is from Lloyds in the UK. This is a challenging situation, as a lot of explanations are needed.

The inspection takes place in a negotiations room. Typically the inspection could take 3 days, with about 20 tests.

The inspection progresses as follows: First a product and document inspection takes place. Then a test is conducted at the manufacturer's site. A test report is written, followed by a reviewing of the test report to see if all parties' judgments are duly reported in the text and match the actual findings. There may be documents on a great number of valves (e.g. 100). Then a sample is taken at random from among the valves. The testing is organized and reported. Retesting may take place in unclear cases. If everything is OK, the manufacturer receives a release note from Lloyds and can deliver the valves. If problems are discovered; the inspector writes a deviation report and the project manager fixes an appointment for a new review.

What makes the situation demanding is: 1) the inspectors are the BOSSES. The challenges relate to how to organize the inspectors' time with a valid program, because not all the time is needed for the meeting. Therefore the project manager should be able to make natural use of gap time. 2) The inspection may be a third or fifth one during a week. Another challenge is to keep up the motivation level and simultaneously cope with stress. 3) Inspections, in general, go well. A major challenge may be that some documentation is deficient, or that the customer has sent the documents directly to the inspector, while the manufacturer has already created new ones (NA7, Interview report 2 by researcher).

Evaluation of the interview method

Interviews allow in-depth coverage of issues, provided that the interviewee is knowledgeable on the key issues the interviewer is looking for. The data that the interviewee is communicating can be processed in many ways, depending on purpose. Interview logs are current, short-hand notes of content elements, quick to write, but the text becomes cryptic and less readable for outsiders. Interview recordings and their transcriptions are more accurate, but time-consuming. Interview reports are an intermediary, more coherent, but may lack some of the accuracy of interview transcriptions. An LCPP practitioner needs to take a stance to the appropriateness of different data analysis methods, bearing in mind the need for time.

Several factors play a role in a successful interview: the cultures of the interviewee and the interviewee must match. The interviewer must gain credibility for performing the interview for a purpose, and the interviewee must have motivation in promoting the purpose. A skilled interviewer exhibits an open, neutral stance to the questions discussed. We may thus question whether all the 21 language teacher interviewers in NA4 were able to abstain from taking a position on language teaching issues that evaluated language training. In one of the NA3 interviews I discovered myself as putting words into the interviewee's mouth, which he, a strong, professional, positively 'opinionated' person as the interviewee, corrected and put the content right. Interviewee's shortcomings may interfere with the views of the interviewee, therefore but in the case of a less experienced interviewee, the influence of the interviewer would certainly have influenced interviewee views. Interviewer training is therefore definitely necessary for avoiding interferences with the voice of the source, as has been suggested by needs analysis researchers (Long 2005:36; Bailey 1982:181-217; Bernhard 1994:208).

Another danger in the use of interviews is that the material, transcribed in written format, remains under-analyzed and that the results of the interview do not lead to detailed analysis and relevant conclusions. Also, researcher bias may allow interpretations of interviews that are not justified, due to the assumptions and fundamental premises of the interviewer. A lot in this kind of qualitative analysis depends on the insights and conceptual capabilities of the analyst (Patton 1999:1190).

There is variation as to how interview material can be processed for applying the acquired knowledge to LCPP teaching. Above, we have seen the options of transcribing, log writing, and written reporting. It may be added that conversation analysis tools of accurate nonverbal and behavior notations have not been used as an option since the focus of these needs analyses (NA1-7) has concentrated on the contents of communication rather than non-verbal behavior elements.

Interviews - structured, semi-structured and open interviews can be seen as good needs analysis methods, and their research data can be processed to many formats: transcripts, interview logs, interview reports and also professional frameworks of reference or professional profiles as in section 5.7. One problem of the interview method is the abundance of data: shorthand formats of gained data such as interview reports or logs may prove more useful for practical application in e.g. teaching. Another problem concerns the domain expert focus itself: if the expert is not aware of communication and language focus, the contents of responses may very thin or focus on different aspects than what the interviewer is searching for. One example of such problems was experienced in NA7, where the interviewer asked the respondent to describe the communication situation from beginning to end. The expectation was to hear the sequence of communication in the situation. Instead the respondent continued to describe more background of the operation, the company, products, reasons why this encounter was needed and similar data (NA7). In this kind of situations the method of observation of the event would escape such problems.

Here is a reason for considering the ecological validity of interview interpretations based on discussion logs and notes. Cicourel argues against the viewpoint that social interactions have ‘a life of their own’, but rather shaped and constrained by large organizational settings and influenced by its cognitive and emotional processes (Cicourel 735-752). Thus how can a language needs analyst secure that all the needed contextual and social action data is noted down for understanding the communication; this is a very tall order. Moreover, experts - such as needs analysts - inhabiting the same specialized domain tend to share the same interpretive schemata. (E.g. Sarangi 2007: 568). How can the interviewer and the needs analyst secure that the essentials of the communication are understood and reported in the true nature of the setting is a relevant question to ask. The inferences made based on the sample interviews 2-7 leave space for many questions concerning the ecological validity of interviews.

5.3 Surveys

Surveys are used in all of the seven needs analyses. Surveys have been questionnaire surveys, where the questionnaire is given (in NA4) or mailed and expected to be mailed back (in others). Survey information can also be collected by an interview, as in NA4, where language training organizers were interviewed and the interviewee filled in the survey as the interview was going on. Typical survey questions asked in needs analyses are exemplified in section 2.5, and summarized in Table 2 including those in NAs 1-7. Therefore we move directly to an evaluation of the survey method.

Survey method evaluation

The parameters of surveys are frequently given in the form of tables, graphs and figures, as there seems to be a tendency to provide overview impressions of respondent replies. In observing prior needs analyses, it is significant that reliability and validity issues are practically never discussed in the treatment of needs analysis survey results, with a handful of exceptions (van Hest & Oud-de Glas 1991;

Huhta 1997, 1999; Long 2005). ESP practitioners, therefore, need to discuss the following points critically:

- Are these the right questions to ask? (*content validity)*
- Do all these measure the right thing? (*convergent validity*)
- Are the responses to these statements related to each other? (*internal consistency)*
- Respondent selection in many needs analyses surprise the reader, and gives rise to these questions concerning the respondent's position:
- Did the researcher approach the right respondents? (*key informant selection*) and
- Did the respondents reply truthfully? (*informant bias*) (Maxwell 1996)

When language needs are quantified (or qualified) through surveys, the measures may well be contaminated with potential bias and error. This is why future needs analyses need to address the issues of reliability and validity, both theoretically and empirically.

As for reliability, needs analyses suffer from inconsistency of measurement over time. The exploratory nature of language needs measurement has resulted in the same phenomenon being approached in different ways at different times (as can be seen in Section 2.6.3. for survey questions), rendering comparisons between measurements at different times impossible. Some studies (e.g. NA4) show inconsistency in simultaneous measures (20 different interviewers), resulting in unsatisfactory *internal consistency.*

The key questions in relation to surveys relate to what extent phenomena (such as language 'need') can be operationalized into the above-mentioned questions relating to need.

Current language needs

Fully relevant operationalization for valid measuring of language needs and extent still remain to be discovered. This problem does not relate to language questions alone, but more broadly to the quantification of any organizational research such as measuring performance. Thus the fundamental question is: theoretical concepts in organizational research are qualitative – how do we quantify them (Dean & Snell 1996)?

As for language need, we have comparisons of the importance of languages and predictions of the increase or decline of needs but no measurement of how many people need language(s), nor discussion of what the level of their potential need might be– elementary (A1 and A2), intermediate (B1 and B2) or advanced (C1 or C2) as per the CEFR scale. Nor do we know whether these are the categories that a company would choose to classify its HR language skills. Is the CEFR scale appropriate? Or would a simpler scale do? One personnel manager suggested: “We only need three categories: Can we send him abroad? Does he need extra training to be sent abroad? Is he/she far off the target and not trainable?” An effort was made in NA4, Prolang, to quantify the announced need of languages by asking the HR coordinator to express how many people he/she was in charge of and how many percent of the people in his/her sphere of influence needed English/Swedish and other languages in their work.

The 69 training coordinators and personnel managers in NA4, the Prolang inquiry in 1999, responded the following question:

> According to your estimate, how many per cent of the personnel uses the following languages in their work? 1. English _%, 2. Swedish _%, 3. German ___%, 4. French ____% 5. Russian ____% and 6. Other, please specify ____% .(Huhta 1999: 174) . The results are as follows:

Table 9. Percentage of personnel who need a specific language based on HR coordinator estimate.

% of personnel who need this language	ENG	SWE	GER	FRE	RUS	EST	SPA	ITA
fewer than 5% need this language	6%	16%	19%	29%	22%	1%	15%	4%
6-30% of personnel need this language	44%	45%	48%	13%	10%	0%	0%	1%
31-100% of personnel need this language	50%	27%	1%	0%	0%	0%	0%	0%
this % of employees do **not need** this language	1%	10%	32%	58%	67%	99%	84%	94%

Table 9 shows how HR coordinators estimate the need for English: more than 7 out of 10 employees need English. There is some need for Swedish in 90% of companies, but this need concerns a limited number of employees, say 1-3 out of every 10. This kind of quantification is a functional solution for comparing needs data at different points of time, though it is far from accurate.

The theoretical construct of ‘language need’ is in the focus in this section. Content validity (are these the right questions to ask about need?) is a very valid point for language needs analyses, since questions have been changing from analysis to another. As we have seen, needs analysts over time have chosen many questions to ask for finding out about language needs in industry and business (Table 3). As a result, the choice of questions shows major variation, and consequently the findings regarding ‘language needs’ are incompatible. Sooner or later, it will be useful to develop measurements that can be compared over time, for national language policy purposes if nothing else.

The question of convergent validity (are we measuring the right thing?) is our second concern in surveys. Convergent validity draws our attention to the contents of the construct of ‘need’, which we saw as diffuse, as described in Section 4.1. Being so polysemous, what in fact is the construct of ‘need’ in the respondent’s mind when replying to the question? How do we know that one respondent is not thinking of a personal current need, another of a potential unmet need, a third of total corporate need, and a fourth of a need at the departmental level? Which needs do the responses relate to that we receive? Moreover, assuming that an identified need exists, how do we know that this need relates to ‘professional purposes’? The simple answer is that we do not. In NA4, the Prolang study, it became clear that some of the results indicating increased Spanish needs could not be explained by corporate contacts with Spanish-speaking market areas, but rather by the individual travel plans of employees. In this respect, the needs analyst must pay careful attention in defining the questions unambiguously enough to refer to the precise construct chosen by the needs analyst.

The third question of criterion validity (there is a need, what then?) is both theoretical and empirical. In social science research, this is usually measured by the correlation between a measure and a criterion variable (Venkataram & Grant 1986). In needs analysis research we find that the ‘what then’ element has changed over years. In the 1970s, the aim was to influence the national language policy (e.g. Virta 1971; Roininen 1972; Kosonen 1973; Berggren 1975; Koskinen & Roininen 1975) to insert languages into educational curricula. After the major language policy reform at the end of the 1970s, this ‘cause’ ceased to exist. Consequently, other reasons appeared such as demands for increased and more efficient language training for workplaces (Berggren 1982, 1986; Mehtäläinen 1987a, 1987b, 1987; Purhonen 1990; NA1: Huhta 1990; NA2: Huhta 1994; Müntzel & Tiittula 1995; NA3: Huhta 1997). At the end of the 1990s, vocational curricula needed to be amended, and therefore workplace communication needs (the object) needed to be studied (Huhta 1999). Causes for needs analysis since 2000 have originated from the need to influence higher education for professional purposes (Airola 2004; NA6: Huhta et al. 2006; NA7: Huhta et al. 2007).

If a measure truly corresponded to a concept, all the above types of validity – content validity, convergent validity and criterion validity – would be satisfied. We have found so far that survey methodology for needs analyses is yet some way from meeting stringent quality requirements for validity.

One more critical point needs to be addressed concerning surveys and their yield. In NA4, respondents were asked to give an example of a demanding work situation, including place, people present, description of the course of events and what made the situation demanding (Huhta 1999:182). The hopes of the needs analysts were high that they would receive good communication situation descriptions for all essential items. What happened coincides with the observations of previous research (Tarone 1981, Selinker 1988) that a non-linguist’s description has proven unreliable. A non-linguist’s description of a communication event concentrates on content, reasons for procedure, consequences and many other aspects that may assist the needs analyst to see the totality of the situation but fail to communicate the essential factors of communication genre, discourse, and relevant content items that would help in curriculum design and pedagogical planning.

5.4 Language Audits

As mentioned in Section 2.6, the limits of language audits are not clear in existing literature. Some researchers see evaluation and feedback as part of the language audit cycle, others exclude the evaluation. In this study, we decide to include the evaluation of the current language program in the cycle (Huhta 2002b:25), since program progress can only be identified once regular feedback or regular measurement can confirm the existence of sustained, consistent, good practice. A language audit understood as Reeves & Wright (1996) identifies language and communication needs only once and produces and action plan for the company to adopt. In the present interpretation, especially for the public sector, needs analyses and evaluations of impacts on the action plan (=education) is a recurrent cycle.

NA5, the language audit conducted in 2001-2002 at two universities of applied sciences evaluated the strengths and development needs of language education and outlined recommendations for further development. The evaluation philosophy was expressed as an endeavor to involve all agents of language education at all stages of the process, to anchor the evaluation to the daily practice of language education, and to foster open and collaborative learning facilities (Löfström et al. 2002:21). The data were collected through self-evaluation, teacher-student evaluation and an external audit (Ibid: 11) as is shown in table 10. The details on the data collection are given in section 4.6.5. The following stages were involved in NA5:

Table 10. Stages of language education evaluation (Löfström et al. 2002, based on Lyytinen 1993, 1999).

PREPARATION	DESIGN	KNOWLEDGE ACQUISITION	KNOWLEDGE USAGE
- information for the community - motivation-building - benefits and risk analysis - resourcing	- identification and prioritization of evaluation targets - scoping the evaluation - determining target groups - specifying evaluation methods	- design and selection of evaluation tools - training in the use of tools - data collection - data analysis - record-taking of central issues	- evaluation of collected data - decision-making - implementation of decisions - monitoring - continued implementation - consolidation of activities

In the evaluation of NA5, the tools selected were self evaluation of four specific themes (Löfström et al. 2002: 23), done separately by language teachers and degree program managers. Students and teachers focused on three the themes of contents, implementation and organization of language education (Appendix 6). This evaluation was first conducted separately for teachers and students, then as cross-evaluation, discussing the results with each other to find a mutual understanding of why they had responded differently in their self evaluations.

Evaluation of the language audit method

NA5, a language audit and semi-external evaluation measured to what extent the curriculum intentions of workplace orientation was implemented in language education. Several positive reasons can be given for why such a method is in place. First, the audit procedure showed the importance of involving students and decision makers in the process of evaluation, as we will see through exemplification in Section 6, looking at student comments compared to teacher comments on the same issues. Some of the views of students and teachers differ significantly, as is shown in section 6.3. Secondly, language education received feedback, which it had not received on a systematic basis. Thirdly, a variety of experiences from many degree programs showed which practices were worth ‘best practice’ label, and which other practices less so, though sometimes firmly assured by one of the herad parties, but not others.

It is worthwhile to ponder the dilemma of why learners reply so differently from teachers, discussed more in section 6.3. Some explanations can be traced back to differences in background and experience. Another reason may be situational: language teacher views are based on evaluation discussion with their colleagues in a situation where it is common knowledge that everything said in the discussion will be used for the external evaluation. Students evaluate among their own group, without their language teachers, and document their own views. There is a common misunderstanding, according to Patton, about triangulation as having the point of demonstrating that different data sources yield essentially the same result. Patton continues:

> But the point is really to test for such consistency. Different kinds of data may yield somewhat different results because different types of inquiry are sensitive to real world nuances. Thus, an understanding of inconsistencies in findings across different kinds of data can be illuminative. Finding such inconsistencies ought not to be viewed as weakening the credibility of results, but rather as offering opportunities for deeper insight into the relationship between inquiry approach and the phenomenon under study. (Patton 1999:1193)

On looking at the evaluation content of NA5, it seems that language teachers as developers of their own field choose to see their professional activity through the optimism of future developments. Development is slow, as can be concluded from the reports of work overload, shortage of time for collegial information exchange and dislocation of resources to a central area of specialized material production by the UASs, as appears in the data. Language teachers interpret ongoing activity as through the eyes of the next step, the soon-to-be situation, which the student does not see materializing. To the student, the reality is a once-in-a-lifetime experience, positive or negative, and the student assesses his/her experience through the one-time experience filter. Evaluators also know that evaluation discussions can in some cases turn into a bashing of all the evils of the past. This was clearly the case in one of the evaluations involving students who had apparently suffered from an unlucky judgmental assessment and a detrimental attitude on the part of one of the teachers of the three languages. They used very harsh language about language teaching and expressed a dislike of the evaluation, along the lines of "Why should we evaluate if it does not help us any more? Let others suffer the same". However, as representatives of an ethical profession, teachers need to be involved actively in the design of evaluation and also consider the extent to which evaluation meets the ethical principles of the teaching profession (Niemi 2006:90-92).

The process of evaluation initiated a continuous development process of language education at the two universities of applied sciences. Language education strategies were formulated at both institutions (KPAMK 2002; Stadia 2002). Recommendations for language education practice were developed and decided on at both institutions (Stadia 2003; KPAMK 2003). As a contribution of the evaluation process, the ARENE language committee was established at the initiative of the rectors of the two institutions, and this is how mutual language education resolutions and recommendations were initiated. The ARENE language recommendations were first set up in 2004 (Language teaching recommendations by ARENE language committee 2004) and later adjusted (Language teaching recommendations by ARENE language committee 2006). The language education development process has been monitored through two follow-up surveys (Kantelinen & Heiskanen 2004; Kantelinen & Airola 2008). We can thus say that a single language audit at two UASs has made an impact on the development of all UASs, as 73% of

UAS rectors and 74% of language teachers consider the recommendations to have contributed positively to the quality of language teaching.

The method of language audit brings about the different perspectives of learners, domain experts and language teachers to the focus of needs considerations, thus providing a triangulation of perspectives. Therefore, it is worthwhile to include language audits in their broad interpretation in the repertoire of needs analysis methods.

5.5 Discussion Logs and Portfolios

A common denominator of diaries, journals and logs is that they include a reflective element considering what is happening and how to construct and understanding of the phenomenon to be evaluated. Moreover, it seems that journals and discussion logs are typically written at an instant, with less time for reflection, whereas journals and portfolios are 'slow-how' documents created with more time for reflection.

Discussion logs were kept in NA5, where in degree program evaluation discussions one person took notes as others were speaking. The main points of discussion and the views expressed were recorded in the process. The note taker could not possibly write down everything, and thus the time and speed of the interaction influenced the detail of the records. From the validity point of view the records are a single person's interpretation, but in NA5, for example, care was taken that one or two other persons present also took notes, checked the records and made changes and additions to the records. The benefit of instant log-writing is time; there are fewer memory gaps if events are recorded as they occur. Again, some essential points may have been discarded in the speedy discussions, as the discussion progressed and the note taker was still writing the previously heard input. The product, the log itself, becomes a rather cryptic text, as table 11 shows, exemplifying a student evaluation where the discussion log was kept by a student counselor.

Table 11. Needs analysis -. NA5 . Evaluation log. COP-Stadia. Part D.

Question under discussion	Notes/Log by the self assessors[10]
1. What principles and procedures are used to choose and decide on the teaching con-	English taught in the 3rd year. Those with matriculation exam background and vocational schools background are mixed. Groups get heterogeneous. In German we have been able to influence contents. Students cannot influence the contents. Course in Communication across Cultures excellent. We have been able to influence contents

[10] Degree program/field: Electrical Engineering and IT, Automotive Engineering
Evaluation period: 11/2001- 28/2/2002 Date: March 13, 2002 3.00-5.20 p.m.
eight students of Health Care/ Software/ Electronics Engineering and six of Automotive Engineering.

tent? How does this procedure work? Its strengths and weaknesses?	directly. Teaching and material is in English. (Software Eng) In Auto Eng Foreign Cultures are in Finnish. It could be better. We got what we wanted. The course could be in English. Auto Eng courses really good. Contents have been good. Questions about contents have not been asked – maybe no reason either. English: not clear. Pretty mixed. Must aim that all students are on the same level in the 3rd year. Should we choose: not students. Some groups have had needs analysis at the start, not all.
2. What principles and procedures are used to choose and decide on the implementation of teaching? How does this procedure work? Its strengths and weaknesses?	We have been listening a lot in class. Contents: cannot do much about it [listened bits; my addition] Often only one speaks and the rest listen (El Eng 3rd year) Auto Eng: we should practice more presentations. And producing texts, because it's needed at work. Depends on the background. Background muddles up: read: some cannot do it. We get frustrated. We should have more groups. One translates and others are passive. Language labs have been used a lot in some courses, in others too little. We have also had to fill in gaps.
3. How does the content of language teaching correspond to the competence needed at work? Could the contents be developed? How?	Sad that Swedish comes at the beginning. The attitude is as to obligatory Swedish (=pakkoruotsi). At work I needed Swedish immediately, I had to learn at work. It was amazing when I received a phone call very similar to one we had heard at school. Practical and useful things. The timing of English is wrong. We'd need help for English at the beginning of school 7/8 think so. It is important before traineeship 2nd year. (ElPowerEng3 does not have technical English – we never get there. Company profiles etc. pretty general stuff is included. In German circuit switches etc. in German. Really good. [Translated by the writer]

Sample 8. Needs analysis - NA5 . Evaluation log. COP-Stadia. Part B. Degree program evaluation.

Sample 8 above of a discussion log illustrates a number of aspects. First, despite the fact that there were 14 themes that were supposed to be taken up in the evaluation discussion, the conversation digressed to irrelevant topics and wandered where it was not expected to go. Student evaluations in particular – but also teacher evaluations – digressed to uncomfortable problem points not only where they were asked about but in also many other irrelevant contexts. Consequently, the text in a discussion log can also be very incoherent and difficult to trace back later if analysis occurs at a significantly later point. This disorganization can be fixed through content analysis at the next stage by tagging elements of the replies under relevant concept categories, as in Section 9. What cannot be helped afterwards, however, is the cryptic, insider nature of the text. I myself, being another insider, can mostly read the log, but some parts are no longer legible or understandable out of context.

Nevertheless, despite their limitations discussion logs are very useful because of their currency, authenticity and ability to address essential issues from the participant point of view and for their convenience of instant progressing in the development scheme. The slow processes of transcripting and their analyses can be left out.

The second kind of sample for M10, Diaries, journals, discussion logs and portfolios, are teacher portfolios. This method was used in NA5 to gain an overview of the teacher situation at the two UASs. The portfolio structure was designed in the language education evaluation based on teacher portfolios (Stadia 21, KPAMK 13). Their contents were formulated in a framework of questions on the following themes: teaching philosophy and ethics; teaching history, teaching and tutoring experience; pedagogical activity and teaching development; society/community service, teaching material production and publication activity, presentations; role in the organization; work and international experience other than teaching; further education and training courses; and training needs (See Appendix 7).

Many portfolios were created with a lot of thought; most of them were insightful and thorough. Relevant parts of these portfolios were later content analyzed into clusters of meaning. As lengthy excerpts of teacher apprehensions on their teaching philosophy and values are displayed in Section 6.2.2, portfolio texts are not illustrated here.

Evaluation of teacher portfolio method used in NA5

Portfolios in the form applied in NA5 bring many benefits, provided teachers take them ‘seriously’, fully reflecting on the questions. Some portfolios were filled in with the shortest possible replies, and their yield says more about the teachers’ boredom with development projects than about anything else, as one teacher expressed in the open comments: “to have peace at work from perpetual development”.

The benefit of portfolios is that teachers take time to reflect on their work and think about the relationship between classroom practice and inbuilt assumptions about themselves, learners and the institution. The portfolio helps teachers to become more aware of their professional choices. It also shows the items that the institution is interested in: pedagogical development, further training and development of one’s own skills. Since portfolios are created in peace and quiet, they more often than not are coherent and easy to read, though there were also ones written hastily in bullet point style.

To me as a part insider (being a teacher at one of the two UASs) and part outsider (not knowing all the teachers of the other UAS), it was delightful to see that behind the excellent performance of a good many silent teachers there are solid underlying values for instance of learner respect, thorough ideals of the nature of communication, and emphasis on central issues of language education such as workplace orientation and topicality of subject.

The downsides of this type of portfolio may be the fact that such reflection is labor intensive and possibly demotivating if nothing happens after the portfolios are completed. Fortunately, this time the language teachers received an extra resource over three years time to invest in their further education plans. This was a good continuation to the reflective process of drawing up their teacher portfolios.

5.6 Case Study

Case studies have been used to examine language needs in companies. For example, the Elucidate needs survey, "one of the most comprehensive research studies ever undertaken in European business handling the linguistic and cultural dimension of international trade" is a study where case studies of successful export companies exemplify instances of good practice (Hagen 1999).

> Case study is not a methodological choice but a choice of what is to be studied.… We could study it analytically or holistically, entirely by repeated measures or hermeneutically, organically or culturally, and by mixed methods, at least for the time being, on the case. (Stake 2000:435)

Case analysis involves organizing the data by specific cases for in-depth study and comparison. Cases can be individuals, groups, cultures, regions or nation-states (Patton 2002:447). Cases can also be limited to critical incidents, stages in the life of a person or program, or anything that can be defined as a "specific, unique, or bounded system" (Stake 2000:436; Stake 2006).The case study approach to qualitative analysis is at the same time a process of collecting, organizing and analyzing data and the product of that process: a case study (Patton 2002:448).

A case study approach was used in NA3 for an analysis and description of language training solutions for two sample companies, one with a diversification approach and another with a concentration approach to language training; purposeful sampling was used in the choice of the two cases (Huhta 1997:187-190). The material used for the case study was made up of company internal documentation, company public documentations, statistics, and interviews. In this case the unit of the case study was a company.

Case study approach was also used in NA7 to gain a richer description of listings of communication events in English and their contexts. The component used in the professional profile description was 'a snapshot', a "description of work situations in the life of a professional / the lives of these professionals. The aim is to bring life to the listing of communication situations. The style of this discourse is a story/narrative 3-4 pages in length." This was the instruction agreed upon among the needs analysts of NA7. In this case the unit of analysis was a professional (structural engineer) communicating in his organizational setting (engineering consultancy).

The CEF Professional profile of structural engineering includes seven snapshots. Sample 1 is a snapshot, a 'case' that illustrates the work of a Bulgarian structural engineer. The interviewer herself is both a structural engineer and a language teacher, which can be seen in the depth of described detail. Since the samples are lengthy only one sample case study is given in Appendix 11. This case describes the work of a structural engineer, defines structural engineering and the work involved, including need for speaking English and detailing the communication situations needed in the profession.

The snapshot given as Appendix 11 shows why the bare-bones list needed to be complemented with a thicker description.

Evaluation of case study as a language needs analysis method

Case studies were used in NA3 for analyzing two different companies as representative of typical language training organization modes: the concentration approach and the differentiation approach. These companies were found to be typical samples in a survey (overall level) and therefore chosen for a case study. In the case study phase, data were collected from internal company documentation and through interviews. In NA3, the unit of analysis was the company.

In NA6 and NA7, 'snapshots' were used to collect data from individual company communication events. A qualitative inquiry input such as a 'snapshot' reveals significantly more of the content and communication of a professional's institutional and organizational networks and subject matter dealt with than any statistical or listed piece of information. Narratives such as this provide several benefits: They communicate the contexts of communication and collaborators that are relevant in the discourse community. The professional networks become clear, as well as the purposes of the communication. A lot of additional knowledge is gained about significant issues in the trade.

There are downsides to using 'snapshots' as a method for collecting language needs analysis data, as in all collection of qualitative data. These 'snapshots' are very data-rich, and significant points may vanish into rich detail – yet some elements important for communication practice may have been left out. 'Snapshots' cannot really be used as 'raw knowledge' before being compressed into a more structured format that can secure that the main necessities of communication practice background knowledge are included and that the data are in a more digestible form. When compacted into overview descriptions such as NA7: CEF Professional Profiles (Mechanical Engineering Profile given in Appendix 10, the knowledge becomes more easily digestible and also usable for purposes of curriculum design and teaching purposes.

5.7 Professional Profiles and Frameworks of Reference

Professional profiles (NA7) and frameworks of reference (NA6) can be treated as variants of the same method. They are documents that describe the language and communication practices of a domain in typical professions of the field in a systematic categorization. The background factors of the context are described as typical jobs, typical tasks and typical collaboration parties. The profile knowledge is constructed using multiple needs analysis methodologies, which are explicitly stated in the profile. The qualitative needs analysis data are expressed in the profile in multiple discourses: listings for the sake of curriculum design needs; reports for describing frequent and demanding communication events; and narratives for snapshots, to be used as the basis of classroom activities.

The field-specific data for a professional profile (NA7) or framework of reference (NA6) is collected using a variety of research methods:

- interviewing professionals in companies and at other workplaces
- studying the needs analysis results of employees and HR personnel conducted at workplaces
- examining results of needs analysis with in-service adult students (who work full-time) or trainees who return from traineeship
- interviewing lecturers and specialists at universities and educational institutions and their alumni
- examining documents collected by language practitioners at workplaces for case studies and simulations
- conducting document analyses of workplaces through workplace sites, intranets and the Internet, and
- studying information from employer and employee organizations (CEF Professional 2007).

The 'method' of professional profiles has been under construction since NA4, the Prolang project. The developing group realized that several needs analysis methods were needed – our survey was not enough, nor were interviews. Domain expert knowledge had to be built into the findings, and more communication had to be observed. Evaluations needed to be conducted to see if we were obtaining better results than before. Yet despite these added efforts, the same problem remained: how to accommodate this massive amount of qualitative data to describe the professional communication of a field so that the knowledge would be applicable for curriculum design and classroom practice? A detailed description of this development process in reported in Huhta 2007. Summarized in a few words, the process of what to include in such a description progressed from the modest steps of NA5 towards the model of CEF Professional Profiles (NA7), which cover the angles of language user, community, context and texts, including the teaching. The components of the latest CEF Professional profiles are made up of the following:

A. **TARGET PROFESSION** (field, education/program, specialization/s, degree/qualification, language, writer, date/city/country/ organization, methods used for collecting the information including persons and dates)

B. **OCCUPATIONAL INFORMATION** (typical occupations/ professions, typical employment/employers, typical tasks performed in the position/occupation, to which extent the language is needed)

C. **CONTEXT INFORMATION** (work locations, partners: persons, communities, companies, institutions; communication situations and texts)

D. **THE MOST FREQUENT SITUATIONS** (Description including: type of situation, location, participants in the contact, length of communication, objective of contact, sequence of events and what is essential for succeeding in this communication)

E. **THE MOST DEMANDING SITUATIONS** (Description including: type of situation, location, participants in the contact, length of communication, objective of contact, sequence of events and why the situation is experienced as demanding)

F. **SNAPSHOT** (Description of work situations in the life/lives of a professional/s. The aim is to bring life to the listing of communication situations. This discourse is typically a story 3-4 pages long.) (CEF Professional 2007)

The input a teacher may gain from the profiles comprises the following. Part A, the Background information, specifies the target profession, field, relevant education, degrees and specializations gained and the source of this information. The teacher receives information of whether the Profile matches his/her group of students, to what extent and whether some more needs analysis work is necessary. Part B, Occupational information, provides examples of relevant job titles, typical organizations that employ such professionals and some typical job descriptions. The teacher can prioritize and select from a wide variety of potential jobs for students and see if additional information needs to be collected from domain experts or other colleagues.

Part C, Context information, gives an inventory of typical communication situations and background information on where these events take place. The persons involved in the communication are mentioned as well as the category of the community or institution where the communication event takes place. Part D, the category of most frequent situations, goes deeper into three to five situations by describing the situation, their location and persons present and give an assessment of what is essential for this communication to be successful. These situations provide the teacher with input for course activities that could be used in the classroom or perhaps put forward as an exam question.

Part E, the category of most demanding situations, goes into three to five situations more deeply and describes the participants, the location, the stages of the event and what makes the situation demanding from the interviewee’s point of view. Part F, the snapshot, gives a story (or several stories) from the working life of a professional. It may be a story of a working day from beginning to end or stories of events where the foreign language is needed. Snapshots can form a basis for creating classroom activities. The parts are no longer exemplified here, as previous needs analyses have exhibited the essential parts. A full CEF Professional profile can be found in Appendix x.

Evaluation of professional profiles and professional frameworks of reference as method

Professional profiles offer a number of benefits: they use multiple needs analysis methods, recommended by qualitative method researchers (Long 2005, Patton 1999, Silverman 1986). Their ecological validity is higher due to documentation and transparency of evidence-searching methods. Professional profiles also build a bridge between the overwhelming amount of data-rich qualitative data and the practical application of this data. This is done by the tabular discourse of the document that allows similar content to be found in identical locations of different profiles and thus facilitates the use of profiles for curriculum design and pedagogical purposes. Profiles are also very transferable, in the way that parts of frequent situation descriptions for Software Engineering can easily be applied in Mechanical Engineering, and snapshots made for Business Administration can easily be applied also in other fields.

The NA6 profiles were tested widely in teaching. A group of 14 teachers wrote experimentation reports on how they used the framework (NA6: Huhta et al. 2006:91-188). A summary of these reports expresses the benefits and problems of this approach experienced by the teachers of NA6.

Sample 9. Needs analysis - NA6. Summary of benefits and problems based on fourteen teacher experimentation reports.

> Teachers mention the benefits of *transparency* (Hannila) and *quality improvement* (Hantula) in language education for professional purposes [as benefits of creating the Frameworks of Reference for Professional Purposes; my addition]. *Collaboration* improved as teachers were able to *increase their contacts* (Hantula) with degree programs and *conduct valuable discussions* with the degree programs (Huhta). The *status of language training* in degree programs became recognized (Juslin). *Interaction between language instructors* of the different units in separate locations improved (Eteläperä), as well as between the two participating universities of applied sciences (Heikkonen). Some teachers discussed the tool of professional frameworks with the *students*. One student said: "Why was this not done three years ago?"(Paloniemi)
>
> The professional frameworks had an impact on the course content design. According to teachers, frameworks were identified as a tool for *content design* (Hantula) that helps to identify *core content* for each course and *differentiate* between professional specializations (Laamanen). The professional framework was mentioned as a tool for *tailoring specialized courses* (Laamanen, Lax). The *communicative objectives* of the course could be visualized through the framework (Hantula). It was also commented that the framework could help in *the conformity of assessment* and *skills level descriptions* (Laamanen).

> Many teachers felt that the framework eased the materials problem of specialized language teaching by providing *links to relevant materials* (Hantula, Liinamaa) and *ideas for simulations* and an *overall understanding* of communication chains (Hantula).
>
> Several teachers emphasized the benefits of the framework for novice teachers in identifying the objectives and contents (Liinamaa) and deciding what method to use (Hannila). The framework also speeds up curriculum design (Hantula). The framework is mentioned as a *tool for describing and monitoring course implementation in a systematic manner* (Laamanen) and *shape up* one's own teaching (Paloniemi) or one's own *objectives* (Järvinen). Students' *motivation* increased as they rehearsed tasks relevant for their future (Hantula).
>
> One of the major beneficiaries of the framework process was the *teachers' own professional development*. Teachers reflected more on the quality and content of their work: What am I teaching, why and how do I assess this? (Heikkonen). One teacher characterized the framework process as a personal pedagogical development project, where one's human conception, view on language education, learning strategies and authentic evaluation were brought under reflective attention (Järvinen).
>
> The framework process also had its *downsides*. The framework was described as too *fully packed* and *idealistic,* at least according to students. It was said to be *laborious* to create. Especially teachers with extensive experience doubted at first whether the framework would be of any practical use, as fads and trends in teaching tend to come and go. The above mentioned benefits seemed to turn the initial fumbling into meaningful work that was mainly experienced as beneficial.
>
> A German teacher commented, quite appropriately, that the framework does not apply to an *optional language*, where the starting point is the elementary level. Some teachers experienced *problems* in creating the framework. Professional subject teachers [SSIs, to be interviewed for information gathering, my comment] had difficulties finding time for language work. It was also difficult to limit what to include and exclude in the framework in view of short language courses and shortage of contact teaching resources. (Johnson & Huhta 2006:245-246, translated by the writer)

NA7 learned from NA6 in the ways that major attention was laid on research methods and their use to such a way that a thicker description of the professional communication could be obtained, as well as short title level descriptive listings as above. Unfortunately NA7 was not as widely experimented in teaching as NA6, thus similar data is not available for both. But in all essential parts professional profiles and professional frameworks of reference are indentical. Professional profiles are more research-oriented and go deeper into single communication events. This rich amount of detail can be illustrated by a short sample in NA7 on the needs of Law communication in table 12. This 35-page profile includes detailed descriptions of communications going down to discourse level of the communication.

Table 12. Needs analysis - NA7. CEF Professional Profile on Law. Part D.

D. FREQUENT PROFESSIONAL SITUATIONS

LOCATION	*PERSONS ORGANIZATIONS*	*COMMUNICATION SITUATIONS*	*TEXTS*
The lawyer's office	The lawyer A foreign national representing the client, usually a multinational corporation or its Polish subsidiary	Responding to the client's request for legal advice, representation, or a legal document to be procured Stages: (1) analyzing the client's request, (2) consulting relevant legislation and documents, (3) translating relevant extracts, (4) phrasing a reply to the request, or (5) arranging a meeting and instructing the client as to the documents needed	An exchange of e-mails or telephone calls Legal documents in Polish and English
The lawyer's office or the law firm's conference room	The lawyer At least two representatives of the client's management, including a foreign national, usually a senior executive or board member	A case orientation meeting held to clarify the client's request and the lawyer's task Stages: (1) general briefing by the lawyer about the procedure to be adopted and its legal basis, (2) answering the client's questions, (3) analysis of the relevant legal and business documents provided by the client, (4) working out a concrete approach and a timetable for further cooperation	Face-to-face conversation Documents brought by the client (e.g. letter of intent, invitation to tender)
The lawyer's office or the law firm's conference room	The lawyer Two or three executives from the client's organization, including a foreign national	A case working meeting held to discuss case developments and steps to be taken Stages: (1) progress report by the lawyer, (2) questions and comments by the client, (3) analysis of new documents	Group discussion Brief presentations related to the case Minutes of the meeting
The lawyer's office	The lawyer His/her foreign counterpart at another office of the same law firm, or a business consultant (e.g. on fiscal regulations)	Consulting a foreign counterpart or a business consultant about some aspects of the case Stages: (1) small talk, (2) defining the problem / request for consultation, (3) asking for a suggestion, (4) working out a solution	Face to face or phone conversation(s), or an exchange of e-mails Relevant Polish and foreign legislation and documents
The firm's conference room or a conference room on the other party's premises	The lawyer and his/her client's representatives (Polish and foreign) The other client - lawyer party, often including foreign nationals	A session in trade negotiations between the client and another company or a financial institution, where the lawyer represents and accompanies the client Stages: (1) exchange of formal greetings and introductions, (2) explanation of the starting positions by the parties, (3) presentation of relevant information, documents, expert opinions, etc., (4) discussion of the conflict issues,(5) bargaining, (6) reaching a partial agreement and scheduling another session, or (7) reaching a complete agreement, satisfying both parties	Documents used in the negotiation (drafts of contracts or clauses, letters of intent, offers, financial documents) Minutes of the meeting Further correspondence, usually by e-mail

Gorska-Borecka. B. (2007). Extracted from Professional profile on law (CEF Professional 2007).
Sample 10. Needs analysis - NA7. CEF Professional Profile on Law. Part D.

We find that the ‘text’ column in table 12 provides a repertoire of genres necessary for conducting frequent encounters, from meetings and contracts to group communication. The column ‘communication situations’ provides a rhetorical structure for the events, and the two first columns, ‘location’ and ‘persons, organizations’, provide background information, for being able to simulate similar communication events in teaching. The above format of frequent situations provides not only a compact repertoire of frequent law communication situations but also the sequence of events in the communication, though not down to move structure. The use of brief, grid-format information may still turn out to be too cryptic for creating a classroom simulation. The lengthier version used for demanding situations may provide better help for classroom use.

Professional profiles or frameworks of reference are a good if not a perfect solution for learning communication in a specific field, such as Mechanical Engineering. Firstly, they are context-reliant, therefore a profile made for Mechanical Engineering in Finland does probably not provide a good communication map of for teaching Mechanical Engineering at a Danish university as relevant industrial fields, operations and thus business are different. Many components can be applied, but the local, context-specific character of any application cannot be overlooked. Secondly, as mentioned in the teachers’ comments above, its creation is time-consuming, and not all of its parts can be applied. The profile can be taken as a map of communication: not all locations on the map will ever be visited. But zooming in on the details we find parts that are spelled out in great detail through descriptions of demanding situations or snapshots.

One full Professional Profile is exhibited as Appendix 10; many others are accessible at the CEF Professional website (CEF Professional 2007). Another drawback with this method is that its value depends very much on the needs analyst’s professionalism and time. We have seen a wide variety of implementations, from quick fix profiles prior to NA6 to very professional ones in NA7. The professional ones used a number of methods (observation, interviews, surveys, and discussions), consulted a variety of experts and had a profound and informative writing style. The quick fix variants were mainly built on teacher intuition and very few domain-specialist experts, resulting in a few pages written in abstract concepts (e.g. all usual communication situations) that offer little help for the needs of a practitioner. This may result in biased choices, overgeneralizations and slanted presumptions of communication in the field, similar to non-expert intuitions (Long 2005).

5.8 Summary of Language Needs Analysis Method Evaluation

In combining the existing knowledge of needs analyses (Section 2.4 - 2.6) with the actual use of needs analysis methods (Section 5); we find that several methods have been used for needs analyses, as is shown in table 13 below.

Table 13. Needs analysis methods evaluated

M - method of Long's classification (2005)	NA1 Effective LT	NA2 Corporate Language Resources	NA3 The Dynamics of LT	NA4 Prolang	NA5 COP-Stadia Evaluation	NA6 COP-Stadia Frameworks of Reference	NA7 - CEF Professional
Focus of needs analysis	subject of language needs	subject of language needs	organization of language training	mainly subjective but also objective language needs	objective language needs	objective language needs	objective language needs
Domain expert intuitions M2		x	x	x	x	x	x
Interviews: Structured M3 Unstructured M4			x (M4)	x (M3)	x (M4)	x (M3)	x (M3, M4)
Surveys M5	x	x	x	x		x	x
Language audit: internal self evaluation, external audit M6					x		
Diaries, journals - logs, portfolios M10					x		x
Case study			x			x	x
Professional profiles or frameworks of reference				x	x	x	x

The top two rows of table 13 show that the focus of needs analyses has shifted between 1990 and 2007 from the identification of subjective language needs to objective needs of language learning. It is logical that as soon as sufficient information was available on the increasing demand for language skills (NA1-3: 1990-1997), the focus shifted to examining the specific details of the object of need (NA4-7: 1999-2007). The methodology also changed from usage of one method at a time towards more variety in methods, in line with researchers such as West (1994), Brown (1995), Long (2005, 1999) and Witkin and Altschuld (1995:279), who argue that needs analysis should use multiple methods and multiple sources to increase its overall reliability and validity. It is therefore positive to see that NAs 4-7 practiced using several needs analysis methods rather than the earlier ones, NA1-2, which only used one method of needs analysis.

Six of Long's categories of needs analyses (2005) have been used in the research material of this study (see table 12), but not only them. As for language audits (M6) Long seems to refer mainly to 'institutions and organizations as unit of analysis'. Here, auditing is applied to public institutions, universities of applied sciences, in what is both an internal and external evaluation and involves a process of cross-evaluation, in a new manifestation of Long's category. The category of diaries and journals (M10) receives an extra case of discussion logs and portfolios, each slightly different. Discussion logs, written at the instant, are cryptic yet authentic records of views expressed in a discussion. They lack coherence and backgrounding and involve dangers of error and redundancy, which may be amended by using a second note taker. The benefits of this approach are its speed and instant usability. Portfolios are coherent, fairly logical texts, as writers have time to contemplate their discourse. Some portfolios can be incoherent and cryptic as well, if the writer is pressed for time or is not motivated to complete the task. Portfolios are best suited for situations where people are highly motivated to look for improvement, and thus willing to take the time and effort to organize their thoughts. Moreover, it is slightly unclear whether by 'expert practitioner intuitions' Long refers to both language teaching specialists and subject specialists. I have, therefore, chosen to use 'domain expert' to refer to the professional subject specialist.

Two additional types of needs analysis have appeared besides the ones categorized by Long: M18 case study and M19 professional profiles or frameworks of reference, which can be regarded variations of the same method, as they are identical in their essential elements.

We will next discuss the needs analysis types used, based on their differentiation criteria.

Differentiation criteria of needs analysis methods

As noted at the beginning of Section 5, one problem relating to needs analysis methods is that some of their names refer to the data collection phase, such as surveys or interviews or triangulation. Some other names refer to the description of the data collection event where data collection takes place, such observation or domain expert intuitions. Some other names of methods relate to the procedure of data analysis, such as content analysis – yet the data for the very same data collection can be in the form of interviews or journals. There are also methods that refer to the outcome of research results, such as journals or professional profiles. Table 14 classifies the needs analysis methods into these three categories; the categories are Long's, and those occurring in NA1-7 are given in bold type:

Table 14. Main reference of language needs analysis methods.

Main reference of method	*Type of needs analysis method*
Data source	*M1 non-expert intuitions (= informant source)* ***M2 domain expert/subject specialist (SSI) intuitions*** *(= informant source)* *M17 triangulated methods (=informant sources)*
Procedure of data collection	***M3 unstructured interviews*** ***M4 structured interviews*** ***M5 surveys*** ***M6 language audits - internal/ external-evaluation*** *M7 ethnographic methods* *M8 participant observation* *M9 non-participant observation* *M17 triangulated methods (=several ways of collecting data)*
Procedure of *data analysis*	***M10 diaries, journals - logs and portfolios*** ***M11 content analysis*** *M12 discourse analysis* *M13 rhetorical analysis/register* *M14 computer-aided corpus analysis* *M15 genre analysis* *M16 task-based, criterion-referenced performance tests* *M17 triangulated methods (=several methods of analyzing data)*
Outcome of research findings	*M18 case study* *M19 professional profiles or frameworks of reference*

Some of the classifications of needs analysis method focus in table 14 are clearer than others: surveys, for example, unequivocally refer to data collection. But a case study can be not only the outcome of evidence searching operations such as documentary analysis, interviews and company statistics but also the event of data collection itself, and even the procedure, whereby bits and pieces of the case are compiled into a coherent story, 'the case'. This prompts the question of whether domain expert intuitions can be referred to as a method, as a structure has not been established for utilizing domain expert input.

It is worth pointing out that the classification of methods is not exclusive, since it is not based on a single classification criterion. This overlapping classification was chosen because the terms and phenomena that the terms refer to occur in linguistics and social sciences methodology, and it is practical. We should note that Long's classification discussed in Section 2.6 is also a multi-criterion, overlapping classification. This is not so much of a problem when we consider that some of the methods refer to the data collection phase, such as surveys or interviews, or triangulation in Long's classification, while others refer to data collection but focus not on the method of collection but the description of the collection event where data collection takes place, such as observation or domain expert intuitions. Yet further methods are named by the procedure of data analysis, such as content analysis – yet the data for the very same data input can be interviews or journals. There are also methods that refer to the outcome of research results, such as case studies or professional profiles

Another question relates to M18 case studies and M19 professional profiles. Can these be called needs analysis methods, since all other needs analysis methods seem to relate to data collection and analysis, and only these two to the outcome of research results? A narrow interpretation of needs analysis methods restricting them to data collection and analysis alone would exclude the types that relate to outcome of research results (M18 and M19). In that case there would be two more, M1 non-expert intuitions and M2 domain expert intuitions that would also need to be excluded, since 'intuition' does not refer to any procedure but rather only to the informant source. My choice is to retain the broader interpretation, where all the above methods are included in the range of needs analysis methods, until we can gain a clearer understanding of the term 'method'.

As for research methods in social sciences Sarong postulates that observation, participation and interpretation do not constitute distinctly different activities (2007:577). Perhaps in line with this, needs analysis classification criteria remain blurred. However, the dilemma of the needs analyst remains in the context of medical professional setting that

> An analyst must steer between the Scylla of decontextualization and Charybdis of over-generalization. A microscopist would remind us of the need to use a lens of appropriate magnification - neither to high power (removing essential context) nor too low power (revealing insufficient detail). (Clarke 2005: 189)

The two latest needs analysis methods, professional frameworks of reference (NA6) and CEF professional profiles (NA7) were developed to increase magnification of detail in describing the communication situations of NA4.

Which language needs are being addressed by NAs?

Some needs analysis methods focus mainly on the subject of need, whether an individual user or professional requirer (van Hest & Oud-de Glas 1991:10). In fact, all the seven needs analyses concentrate on the professional requirer rather than the individual user, except for NA4, Prolang, where some employees – not many, mainly female office employees – described their language needs in relation to holiday trips. This is a common denominator of all the seven needs analyses. How the data of in-service communication can be applied to pre-service students is a pedagogical question that needs special consideration. Present Situation Analysis (PSA), with inquiries about learners and their wants and means in learning the language (Dudley-Evans & St.John 1998:125) are included in NA1, NA2 and NA4. If the subjective need is unconscious (Vandermeeren 2005:163), the question should be addressed to someone else than the subject. We find that NA4 asks the same questions of both employees and HR departments; it seems a worthwhile procedure, as not all the replies are identical. For example, HR departments recognize a growing need for Chinese and Japanese which employees themselves experience (see section 6.4).

A learner may also be asked about their learning preferences and course implementation preferences (Dudley-Evans & St. Johns 1998; Huhta 1997). NA1 and NA2 considered learner preferences such as course format and objective, but they asked the language training organizer, not the learner.

Some needs analysis methods and their questions concentrate on identifying and specifying the object of need by addressing questions on language use: situational or functional activities, competence profile, socio-cultural contexts, linguistic subskills or relevant content (Mountford 1981:28). Professional Frameworks of Reference (NA6) and CEF Professional profiles (NA7) are examples of needs analyses that focus on the content of the object of need, conducting Target Situation Analysis (Richterich & Chacerel 1980) of the level genres and discourse (Dudley-Evans & St. Johns 1998) of target communication.

Competence gaps (van Hest & Oud-de Glas 1991) or gaps between PSA and TSA (Dudley-Evans & St.Johns 1998) were identified in Prolang, NA4. Prolang in fact used five operationalization of identifying competence gaps. First, it was assessed whether their needs for certain languages will increase, remain stable or decline in the future. Secondly, employees were asked to assess their current language skills and aims within five years on a scale of 0-5. They were also asked whether their language skills were sufficient, partly sufficient or insufficient (Huhta 1999:117). These measurements made it possible to quantify subjective, experienced language needs, which could be used as a measurement monitored at sequent intervals. This would make it possible to observe change in numerical terms, which is now not possible, because all needs analyses are using different methods, and the results are thus incompatible. Thirdly, employees were asked about the number of years of language study background. This allows correlation of the metrics between self assessed estimate and years of study and is thus one way of quantifying the resource and the average input of education. The fourth operationalization for identifying a competence gap was to inquire about the strengths and weaknesses of language skills. This measurement can yield implications for overall language policy and curriculum design in languages.

The progression from NA1 to NA7 has been a chain of knowledge creation events, where one solution of a problem has lead to another, and each NA has become a reconstruction of the learnings of the previous NA. In knowledge management terms, it has been a knowledge construction sequence for understanding the LCPP.

In an overall scrutiny of the period of 20 years of needs analyses (1989-2008), we find first of all that the first three at the end of 1980's were organized in conditions where markets were gradually being sought abroad and languages became an issue. NA1-3 sought to find out whether language needs existed, in which languages, and what personnel groups should be prioritized in training. The NAs also focused on features of effective language training..

These three needs analyses were followed by NA4, a national and European development scheme with 20 language teachers involved, which transferred the knowledge of effective language training in the private sector to the public sector, specifically to vocational education and universities of applied sciences. The focus of attention in NA4 was on current and future language needs and their appearance in communication situations to be taught in the education system. Results of NA4 were applied in the national curriculum reform at the end of 1990s. An important product of Prolang was the listing of important communication situations, detailed in Section 6.3., which remains a valid list of communication situations for professionals in business and industry, complemented by additional categories. However, all the 18 categories have received additional applications and implementations of communication situations such as 'meetings'.

The fifth needs analysis (NA5) continued by applying the results of NA4 and inquired whether the knowledge of prior needs analyses was actually implemented in education in the setting of two universities of applied sciences. The results of this internal-external language audit, where relevant stakeholders were heard, laid the groundwork for language strategy, organization and process improvement at the two UASs, which is still ongoing.

There were knowledge gaps that remained even after NA4 and NA5: The Prolang listing of communication situations could be included in curriculum design, but the information was quite cryptic. It was necessary to collect more data about communication situations so as to set up motivating classroom activities. Following NA6, teachers produced descriptions of 14 fields and experimented with them in teaching. The 'professional frameworks of reference' of communication were published and utilized for syllabus design and course activities. This was further developed through NA7, a European Leonardo da Vinci project, where 'CEF professional profiles' were produced that were applicable in many European contexts. This tool has provided helpful knowledge of communication in engineering professions applicable to engineering education.

The applicability of each needs analysis method for the purposes of stakeholders – language training organizers, teachers, learners, and national policy makers – will be discussed in Section 7.

6 RESULTS OF NEEDS ANALYSES CONTRIBUTING TO THE LCPP CONSTRUCT FROM THE STAKEHOLDER PERSPECTIVES

The second and third research question relate to the contents of LCPP understood from the results of NA1-7: What are the defining characteristics of the emergent construct of LCPP arising from different stakeholder perspectives in the needs analyses? How are the industry and business language needs considered in national education policy? This is where we now turn our attention.

To gain a balanced, multi-perspective view to the LCPP construct, it is now examined from the perspectives of stakeholder groups (Clarke 1999:16-17; Patton 1997: 43): companies' language training organizers (S1), teachers (S2), learners and employees (S3), and national policy makers (S4), the manner in which the research material has been examined at this stage was detailed in section 4.4. In the inductive qualitative analysis similar elements keep appearing appear from the material of more than one of the perspectives. For the sake of analysis the perspectives, however, first kept separate, to be able to concentrate profoundly on each of the perspectives at a time - leading on to the multi-view analysis of all the perspectives in Section 7.

In line with Patton's utilization-focused evaluation this evaluation considers at the 1) values which frame the needs analysis for each of the stakeholder groups. The merit or worth of language needs analyses is checked against the 2) intended use of 3) intended users in Patton's terms in this section. The evaluation of needs analysis results can help the intended primary users to apply the 4) program theory and consider the suggestions of the 5) future programming of their activity (Patton 1999, 2008 (1997)). The analyses of the relevant NAs for each stakeholder perspective are mentioned at the start of each section.

A comment needs to be made about 'values that frame the evaluation'. Values are a broad concept, but narrower in this perspective of utilization-focused evaluation. As utilization-focused evaluation refers to systematically determining the merit, worth, value, quality or significance of activity (Patton 2008: 38), its values thus, in a narrower sense, relate to commitment by the evaluators to test the program, (Patton 2008:42-43). Also, values of the evaluation relate to the political inherency of evaluation: 'values, perceptions, and politics of everyone involved impinge on the process from start to finish' (Patton 2008:530-31). None of the needs analyses have intentionally asked about the values that frame the evaluation. In this value definition of interest or commitment in LCPP, the values that frame the evaluation have been concluded based on respondent comments to other relevant issues such as 'teaching philosophy', or by judgments based on the background data of needs analyses (Section 4).

6.1 LCPP from the Perspective of Language Training Organizers

This stakeholder view represents companies, where language skills are in professional use. This is where gaps of language competences appear in practice, in the daily business of the workplace. This is where employees, managers and HR departments discover and identify competence gaps, and personnel seek to language and communication training on their own initiative, or are advised and directed to gain additional competences in languages and communication skills. HR departments and language training organizations are interested in (i) language programme needed for (ii) target groups and the nature of (iii) objectives of the training program.

The knowledge that the examined needs analyses provide about LCPP relate to the way of organizing language training in such a way that it results in ‘good courses’ from the language training coordinator’s angle. Employees also give feedback to the language training.

The following NA data provide input from the language training organizer point of view as shown in table 15.

Table 15. Sources of data for the language training organizer perspective.

	Who assesses the LCPP	Method of inquiry
NA1-3	Language training organizers	NA1-2: questionnaire survey NA3: interview
Data collection details found in 4.6.		

The evaluation of open-ended replies by the three needs analyses yield the following interpretations. The stakeholder material is now described in line with evaluation research, to include 1) values framing the evaluation, 2) intended users and 3) intended use of the LCPP program and 4) contributions to LCPP program.

6.1.1 Values Framing the Evaluations of NA1-3 of Language Training Organizers

The values of this stakeholder group can be depicted from a service provider, but rather that the examining the values of a recognized, professional language training provider can exhibit one set of values, not to infer that this description of one service provider can be generalized. The service provider is the Finnish Export Institute (Vientikoulutussäätiö, VKS), later named Fintra (Kansainvälisen kaupan koulutuskeskus), which commissioned the two needs analyses based on their recognition of language training within the totality of human competence development. VKS recognized the changing business environment early on and, as a service provider, predicted the changes of globalizing business and language ecosystem early on, and proacted by developing series of company-based language materials. The company produced a service offering that met the needs of customers even before customers had discovered gaps in their expertise, and realized that they must approach the gap through training. This was not always evident in that time for their customers. Customer companies were not always convinced that investments were needed also in such a field as language training. In conclusion, the values of VKS/Fintra have relied on sensitiveness to changes of business environment, proactive measures in its service offering, belief in human resource nurture, and a firm belief in languages and communication skills as success factors to Finnish export, and later international, business, and human competence development, including intercultural communication skills. This service provider developed during its existence from a firmly state-subsidized organization in the 70's to a self-supporting business in the 2000.

The customers of Fintra are major international companies, but also SMEs. As for the values of language training organizers within companies the data of the needs analyses provides little clues, and therefore their values are more difficult to evaluate. Based on the eight interviews of NA3, some language training coordinators in companies supported the above mentioned values, but not all of them saw language and communication skills in a significant role. Rather, in many companies language training service was regarded as a purchasing process of any commodity or service, with little attention to quality considerations in the tendering process. Rather, the floor was open for effective sales measures by international companies, and purchasing decisions were made with little comparison or quality criteria. Consequently, a variety of approaches to language training was seen (Huhta 1997: 83-96).

6.1.2 Intended Users of LCPP in Corporate Language Training

Within the group of language training organizers we can differentiate between subgroups. Employers can be represented by departments themselves or human resources units, which take the initiative to organize corporate competence development, including language training. Their role can be either to purchase and order language training services or organize language training themselves or both. The second group of LT organizers are language service providers themselves, in other words private language schools, university adult education centres and other public organizations that sell and develop language programs on commercial terms (Huhta 1997: 87-96). It is in the interest of all these intended users to have a language course that meets the needs of all the parties: management, potential participants, language service providers, language schools and language trainers.

6.1.3 Intended Use of LCPP in Corporate Language Training

The commercial interest is portrayed by the interest of Fintra values, was mainly commercial: to improve its service offering by identifying more precisely what kind of needs the market has and base the offering on the identified needs. The details of the need relate to languages chosen, targeting to groups of personnel, tailoring appropriate language programs and selection of practical implementation (contact classes, on-line, self study etc.). The language department had knowledgeable staff, with degrees in languages, whose ideals were to create a service offering with high quality materials, up-to-date methods and excellent trainers.

Evaluation Findings of NA1 - NA3

From the language training organizer point of view, courses have been successful for four reasons: planning (32%), attitudes (30%), the teacher (27%) and group dynamics (11%, n=52). As for problems of unsuccessful courses, the planning problems also dominate of all of the answers (n=52). 42% of coordinators have observed some problem of planning. The second important reason for failure is an attitudinal problem, either that of the participants, the group or the teacher (21%). The third reason is a feature in the group dynamics (19%). The fourth group of problems lies in the teacher. The replies were based on open answers, content analyzed and clustered.

The inductive analysis of the replies conducted for this study lead to identifying the following five principles, which establishes the order in which the findings will now be reported:

- principle of scoping
- principle of grouping
- principle of realistic extent and course format
- principle of professionalism, and
- principle of empowerment.

These concepts will be defined at the start of relevant principle, alongside with inductive analysis and categorizing the findings into matching classes.

Principle of scoping (NA1-3)

The principle of scoping refers to recognized aspects of course design: specifying the object of learning (Van Hest & Oud-de Glas (1991), defining the goal (Robinson 1991) or purpose (Huhta 1997:131), and specifying the target group (Huhta 1997: 131-134). In scoping the varying objects of learning are prioritized and objectives of the course set accordingly, to be matched to the learner group. The matching can only be done if target situation analysis (TSA) has been conducted, using a needs analysis method. As already expressed in the absolute characteristics of ESP goal-directedness is a sine qua non principle in ESP (Robinson 1991:2). The principle of scoping holds that a logical link is created between the target group and course objectives through a careful analysis of the TSA of learners.

Based on the findings of NAs1-2 a course has been successful from the organizer point of view, when a clear need has been identified, the training has been targeted for a defined group and the objective of the course has been specified. These are some basic principles of curriculum planning: 'Good level analysis, clear objectives and a professional teacher'. The target group needs to be composed with thought: 'A course for a uniform group or department works better than for diverse groups'. The program needs to be well planned and include guidance. One of the successful courses was described as a 'well designed and disciplined program'. This comment was stated about a distance study course.

According to the results 'good courses' have their purpose specified based on the findings of NA1-3. The purpose mentioned by respondents, has been formulated clearly such as preparing for on presentations, preparing for a congress, practicing telephone English, dealing with business negotiations or preparing for receiving visitors. A good course often aims at a specific skill such as oral skills or report writing. A good course can also be targeted to raise the level of participants from one level to another, which involves the development of both receptive and productive skills. These open answers, made up of defined, specific aims, make up two thirds of the answers on the purpose of a course (62% by the responses of 54 language training organizers).

Unsuccessful courses, in contrast, are characterized by diffuse or vague aims such as keeping up one's language ability, increasing conversation skills, developing fluency, improving general language ability, general language skills, activation and increasing of one's language ability and vocabulary. One informant simply reported the purpose as being 'obscure and amateurish'. Similar general purpose formulations constitute 83% of the purpose formulations of unsuccessful courses. The purposes of the rest of unsuccessful courses seem to be otherwise unrealistic. For instance the purpose in two cases is the raising of language proficiency level from one level to another in a time frame of 90 minutes a week, totaling 32 hours a term, which is a far too optimistic goal for such a short time, as we will see soon in our discussion of the principle of realistic extent.

Language schools get some blame for insufficient planning: ‘They did not concentrate on the client’s situation; they just wanted to charge for a standard course’. ‘The training has no goals. Teachers changed every year; language training must have clearer goals’. Several respondents mention that the attendance was low. Participant involvement was not included: ‘No commitment, no homework, a heterogeneous group’ Thus thorough planning set the groundwork for a good course. It must include needs analysis and careful adaptation to the rhythm of work of the learners.

Careful planning is credited by NA respondents as the most important single reason for courses becoming successful. To materialize the principle of scoping on practical terms, the designer needs data from the learners: what is their TSA - target situation, which they aim to reach and what the current situation is like. This current situation analysis can be done in the format of needs analysis, with self evaluation, or some kind of testing, or a combination of both. The above examples illustrate how Hyland’s (2002) and Huckin’s (2003) views of a ‘narrow angle focus’ in language training seem to be appreciated by the private sector customers.

Principle of grouping (NA1-3)

The second principle that seems to hold for ‘good courses’ relates to the grouping of learners in a way that supports learning. This aspect is often easy on paper, and difficult in reality. Constraints are caused by differences of social status, heterogeneous language background, group mix of self-expressive and with-drawing personalities, to mention a few that appear from NAs1-3. Therefore planning in collaboration with teachers, sponsors, and students have been suggested (Robinson 1991:3, Huhta 1997: 47, 123), for a good reason. Because group dynamics influences the performance in groups (Losada 1999), participants themselves are worth consulting when putting together groups in the private sector.

The target group for a language course is worth defining around a common denominator. Based on the findings of NAs 1-3 target groups can be composed using the criterion of task-specificity: customer service personnel, designers, and export personnel, persons in guidance tasks or purchasers. The target groups can be position-specific: sales managers, personnel managers, project managers. The target group can be profession-specific: secretaries, translators, engineers. The target group can be specified at an organizational level: top management, middle management, foreman level. The target group can be department-specific: product development group, administration or sales administration. Some target groups of successful courses have been collected from company units in different locations, thus an authentic communication situation can occur as representatives of different units will have information to pass on to each other. Some target groups have been specified by language level: a homogeneous group. (Huhta 1997: 129-156)

The target group has been specified using one of these criteria in 86% of cases for successful courses (n=68). It is worth attention that only 14% of courses that have been successful have not had a target group specified. A significant element in the findings is that the only grouping criterion is not homogeneity of language level of the participants, which is often required by language teachers. In the private sector it thus seems that other criteria can also be applied.

The target group has in been open to all or those interested in 75% cases of unsuccessful courses (Huhta 1997: 133). The group has not been targeted, not defined or to all from elementary level to advanced, or the target group has been very extensive and varied: office employees, upper office employees or for office personnel. But there are eight cases (25%) of unsuccessful courses, which have been aimed at specific target groups. Three job-specific examples of unsuccessful courses were implemented as intensive courses for a foreman, an operations engineer and an information systems manager. In the case of the course for the foreman the language school had not taken the client's needs into consideration, which the informant considers a standard problem, and claimed that the teacher was incompetent and all the language school wanted to do was bill the company. In this case the problem lied, not in the specification of the target group, but rather in the expertise of planning and trainer selection, both of which the training organizer can influence.

This is a vital element in business training, and fortunately in in-company language training such limits to group size as are common in the public economical situation are not required in the private sector. This principle could well be considered for LCPP in the public sector although unpredictable group sizes may cause unforeseeable problems.

As for group size, corporate language courses materialize in small groups of maximum 12 persons, often smaller (Huhta 1997:144-146). Based on NA3 findings, this kind of group size has no impact on the success or failure of the course. However, high attendance has a clear connection with successful courses (n= 54). 85% of successful courses have higher than 80% attendance, whereas 62% of unsuccessful courses (n= 27) has irregular or poor attendance (Huhta 1997: 144-145).

Principle of realistic extent and course format (NA1-3)

The third principle of LCPP course design relates to realistic estimates of learning required for a goal (course length) and matching the objective with the course format.

The service provider is faced with conflicting interests: financial realities, time pressures of the employees and the insight of the slow-how of language learning. Thus choice of course format and length are dependent on how the contradictory interests can be solved by the organizer. Images of quick-fix language courses available in the market do not alleviate this problem in the face of a cost-conscious service purchaser.

When considering formats of teaching, weekly teaching, intensive courses and even block teaching only produce very short time input: 32-48-hours/year. With this amount of time, the learner stays right on the same level for 3-4 courses until any real change in proficiency can potentially take place. Sometimes one course can serve a purpose: the aim is very limited such as Trade Fair Communication and the learner is already on a suitable level. The good news comes when looking at the last option of distance and multimedia study linked with close guidance. With well-tutored assignments and clear deadlines for delivery dates a term's program can get closer to the time required minimally from one level to another (180-360h). With good motivation and disciplined work, supported by contact teaching days, the learner's proficiency can be upgraded in one single year. This, in turn, requires good, authentic study materials or design time for material production. Report for NA3 includes a more thorough analysis of course types and their extent (Huhta 1997:115-121).

Learning times are both theoretical approximations, but also tested reality of NA6. Learning times can be affected by learner motivation, the particular language, methods of teaching and learning, the learner's aptitude and experience of learning other languages and general access to the foreign language. The main factor remains: whichever the course format, language learning must be designed on realistic terms, and this factor should not be under- nor over-estimated (Huhta 2002: 10-13).

Principle of professionalism of language trainers seen by language training organizers (NA1-3)

The principle of professionalism focuses on the qualifications and skills of language trainers. Based on company language training organizers in NA1-3 a good teacher is a specialist, who is knowledgeable, systematic and demanding. A good teacher is a professional adult educator, skilled in languages (spell: degree in languages or related field), a competent person who knows the culture of the country and cultural communication. The pedagogical element is important. The trainer must activate everyone, even the most silent participants. Some positive qualities described are 'energetic and flexible', 'works with all her/his soul'. Quite a few successful courses have had more than one trainer or consultant.

Teachers that have taught on unsuccessful courses have been described in the open answers as follows: 'inexperienced, shy and non-empowering' , 'incompetent; changed during the course', 'not a specialist', 'no professional', 'passive', 'several teachers', 'teacher of a language school' , 'indifferent, bored' , 'unclear style, no teacher qualities' and 'distant, no industrial interest' and 'did not understand the industry nor was interested in learning to do so'. Some lacked pedagogical skills: 'interested in nothing else but listening to her/his own voice' and 'did not know how to relieve the tension between the participants'. These are qualities to be avoided. In one case experienced professional teacher was found among unsuccessful courses, but there the course had other problems: The group was reported to be ‘wrongly composed’, the participant involvement was low and attendance was optional.

Of the total of 54 comments on teachers, nine informants mention that the trainer has been a native speaker of the foreign language, thus the feature of being a native speaker does not alone or necessarily at all make a good language trainer, unlike common conceptions in ESP. Native speakers as language teachers can be excellent, if they are what has been described above: skilled professionals, with a degree in languages, equipped with the knowledge of more than the native language, with pedagogical skills, knowledgeable in LSP. But their excellence becomes a myth when anyone entering the country can be invited to function as a language teacher as their first job in the country. Trainer quality can be ensured if language training organizers do not overlook the competence checking of language teacher background, and make sure that any appealing eloquence does not replace the commonly accepted principles of trainer competence and credentials.

Principle of empowerment (NA1-3)

On scrutinizing the data, a human element of positive experience appears. It is closely linked with the previous principle of professionalism, and attitudinal features. This term principle of empowerment illustrates its connections to a wide array of qualities that relate to the quality of desired approach in human interaction of LCPP. Another option ‘principle of encouragement’ was also considered as the cluster name for the variety of comments that emerged to deal with human dynamics and its complexity. The principle may link closely to trainer’s pedagogical skill, but specifically to less definable aspects of human interaction such as attitude, atmosphere, or personal approach. Data input seems to match with Argyris’ social virtues of caring, help, and support; respect for others, strength, honesty and integrity as essential elements (Argyris 2002: 217). Some data input relates to personal qualities such as vision, passion, conscience and discipline are in line with the principle of encouragement, as well as leadership qualities such as modeling, path finding, aligning and empowering (Covey 2004: 312).

The atmosphere that frames the learning event has a major impact on and individual’s psychological experience of the event and how her commitment and growth are influenced in the environment. Much is dependent on the attitude element of the individual, but a lot has to do with how the experience of empowerment in group dynamics, empowerment understood as a personal and social process, a liberating sense of one’s own strengths, competence, creativity, and thus freedom of action (Robinson 1991: 14), which seems to be linked with high performance, as put forward by researchers (Losada 1999, Fredricksen & Losada 2005, Losada & Heaphy 1990).

Two sources of motivation are mentioned separately in NA3, that of the learner and that of the trainer. The learner has had internal motivation and the trainer is capable of creating more enthusiasm and empowerment. On one successful course the teacher had ‘a positive attitude and the participants matched mentally’, was ‘open and empowering’ and ‘lively and peppy’. A teacher that gave poor encouragement was described as ‘shy and non-empowering’, ‘indifferent, bored’ and ‘distant’. Learner involvement is another essential element of successful courses. Learner involvement can occur in the planning stage: ‘Learners planned the course together with the trainer’. Learners can be involved through preparation and assignments, for instance preparing for presentations, doing distance study assignments or reading work for following contact sessions.

The teachers are mentioned in almost every third (27%) of the comments as one of the success factors of the course. The teacher is simply a professional, a good leader, a person who is enthusiastic or can create enthusiasm or simply as a demanding teacher, who takes the participants and their work into consideration.

Comments by respondents concerning successful versus unsuccessful courses seems to match Losada’s description of high performance and low performance teams. When the atmosphere allows emotional space - for various reasons of grouping, targeting, teacher choice and group dynamics - learning outcomes take place. In successful courses active language skills improved, ‘we were encouraged to learn more’, ‘courage to speak increased’, ‘great participant feedback’, whereas the results for unsuccessful course were described as ‘poor’, nothing special’; ‘no commitment, no homework, a heterogeneous group’. Trainers were experienced as open and empowering (NA2:13, 15, 30, 48), energetic and flexible (NA2:43) and found working with all her soul (NA2:10). Learners were also involved in the planning process, which increased the amount of commitment to the goals of the group.

Comments on learning results elucidate the principle of encouragement. The results of both successful and weak courses were analyzed on basis of answers to open-ended questions. Some of the results ‘had been measured’ or ‘are measurable’, ‘concrete’ and ‘tested’. The results were described as follows: ‘objectives were met’ , ‘80% of the participants reached the goals’ , ‘good interaction skills, argumentation and understanding of finésses‘, ‘active language skills improved’, ‘great participant feedback’, ‘courage to speak increased’ and ‘the course encouraged us to learn more’.

The opposite was true of unsuccessful courses. Learning results were described by organizers as ‘weak’, ‘poor’, ‘modest’, ‘nothing special’, ‘visible nowhere’, ‘satisfactory’, ‘some keeping up, no progress’ and ‘too short a time for progress’.

The most common ways of monitoring the progress of language training activity is participant feedback. Participants can give feedback either about the course or their own progress or both. Another way is to ask for the trainer’s feedback on the progress of the participants, the atmosphere, and the progress of individuals, the activities and participant involvement. The trainer can also conduct tests or an outside test is used by the company for evaluating the end level of the students.

Despite a relatively high number of monitoring activities being practiced by companies there are still 50% of informant companies who feel that more monitoring measures would be necessary. The monitoring used is too randomly, by respondent comments. The follow-up work should be more systematic and co-operation between trainers and participants should be improved. The superiors of participants should be obliged to give feedback and teachers required to hand in progress reports. One of the informants suggests a total reorganization of language courses.

Discouragement in language learning is also related to testing. Quite a few language organizers set their hopes on more testing, but some see the problems: finding a suitable measuring device creates difficulties, as the skill to be tested is holistic and difficult to test. Some informants also see the dangers of using regular trainers alone: external testing is necessary at intervals. Some feel that follow-up activity and training should be continuous and tests should be organized. Some are optimistic about simple solutions: ”we need a simple testing system, which informs the student about what level the participant is at”. This, however, in the light of learning times can be seen as an unrealistic request. Company course are almost always, shorter than 180h, the amount that could in an optimal case raise the language level from one level to a higher level on the European CEFR scale. Company language testing can - so far at best - be achievement testing that measures what has been learned in the courses, but the portion of which in overall language proficiency cannot be proven and thus, if demonstrated on scales, European CEFR or other are yet a dubious activity, which language schools should not be doing.

The traditions of analytical discrete element testing and proposed misplaced foci (e.g. written language instead of oral) have received criticism and more holistic, authentic and rewarding evaluation and assessment processes have been suggested by several studies (Kohonen, Lehtovaara & Jaatinen 2005; van Lier 1996; Little 2005; Huhta, Jaatinen & Johnson 2006), therefore perhaps the principle of encouragement in corporate language training is better catered for by prioritizing on effective learning rather than costly analytical testing.

This concludes the account of the six principles that language training organizers communicate about the organization of ‘good’ and ‘unsuccessful’ courses. These six principles of scoping, grouping, extent and course format, empowerment, professionalism and authenticity seem to be factors with tangible influence on the outcomes language training for professional purposes based on the views of language training organizers.

6.1.4 Needs Analysis Contribution to LCPP from the Language Training Organizer Perspective

From the language trainer perspective scoping the content of a language program is a key issue. The language training organizer perspective also introduces the element of realistic time and appropriate course format to the construct of LCPP.

In the light of the findings, grouping has worked satisfactorily for linguistically homogeneous groups but also for groups that are linguistically heterogeneous but whose members have some other element in common, such as the same position, the same profession, the same department or the same communication need. This finding is contextualized to business training where groups were no more than 12 persons. The expanded principles of grouping may only apply to the small group sizes of the private sector, but it is significant that common ground can be sought in other professional communication facilitating aspects besides language skill level. The expanded principles of grouping seem to apply at least in groups with fewer than 12 persons.

A realistic language course can consist of not only the costly contact tuition elements, but also carefully designed online or distance learning and relevant assignments – some self-corrective, others tutor evaluated.

The fifth element of the model applies the principle of professionalism to the selection of the teacher. Accepted principles of language teacher competence include a degree in language or applied linguistics, teacher qualifications and teaching experience. Respondents also appreciated personality features such as enthusiasm, good leadership skills, commitment and encouragement. In the interviews, the HR coordinators seemed to be less careful about checking the CVs of teachers from language schools – in fact they left it to the language schools. Many language schools accept untrained non-linguists as language teachers, which does not bode well for professional development. Pedagogical skills are significant, since teachers who are "only interested in listening to [their] own voice" (NA2: 28) cannot achieve the same learning outcomes as someone who "didn't need to interrupt anything, he was just there, he helped with the language and gave advice and created such a good and enthusiastic atmosphere that the participants said that the hour and a half felt like ten minutes" (NA3:63-64).

Finally, the principle of empowerment is a central component of any language program for adults. This principle involves not only practical implementation of teaching but also thoughtful involvement of learners right from the start, reflective planning, focus on the individual learner and caring about what happens in class, and how participants will be part of their own knowledge construction in an encouraging atmosphere. NAs 1-3 communicated elements of this principle in several places – in comments on course content, targeting, objectives, materials, teachers and learning outcomes.

6.2 LCPP from the Perspective of Trainers, Teachers and Teacher-researchers

The second groups of stakeholder contributing to construct of LCPP in this study concerns teachers in higher education institutions (NAs 4-7) and trainers in private language training (NA4). The following NAs provide data for the perspective of teachers and trainers, as is summarized in table 16.

Table 16. NAs contributing to the teacher and trainer perspective.

	Whose perspective	Method of inquiry	Contribution reported for
NA4, Prolang	HR language training organizers and employees	questionnaire survey and structured interviews	relevant communication situations
NA5, COP-Stadia evaluation	teachers and learners of universities of applied sciences; teachers	evaluation of language teaching at UASs, teachers and learners separately, followed by cross-evaluation by both groups; teacher portfolios	values, objectives, content, methods and evaluation values
NA6-NA7	teachers	professional frameworks of reference and professional profiles	contents of LCPP
Methods of data collection found in Section 4.6.			

In NA4 both HR language training organizers and employees communicate about relevant communication situations in business and industry. NA5 uses evaluation discussions first with teachers and learners separately, then together as cross-evaluation (details in 4.5.5). NA6 professional frameworks of reference and NA7 professional profiles provide information as to the contents of LCPP. For this study, the inductive analysis and evaluation has been conducted to the following material: open replies to questions concerning relevant communication situations (NA4), teacher portfolios and discussion logs (NA5), professional frameworks of reference (NA6) and professional profiles (NA7).

The essential questions focused in this evaluation research are limited to these three main points: what to teach, how to teach and how to maintain professional growth.

6.2.1 LCPP Language Teachers and Trainers as Intended Users

In the sphere of language for professional purposes there are two categories of teaching staff focused in this study with slightly different situations and interests: (i) teachers or LCPP practitioners, normally seen working for the public sector, and ii) teacher-researchers, often with university employment and research aspirations. In 7.1 we already discussed the third user group of (iii) language trainers, practitioners, consultants, normally seen working for the private sector focusing on more limited teaching projects than in education. The practitioner implements LCPP the daily teaching, using published books and materials in the syllabi constructed locally or nationally in the educational system. The language practitioner or consultant in business is faced with a variety of organizations and teaching content. He or she needs to have a toolbox for testing, planning, needs analysis, material creation - all the stages of language program design and implementation. It is not in this person's interest to freely publish the expertise acquired, but rather compete increasingly well in the market. Teacher-researchers differentiate from the two above categories in the way that he or she also wishes to conduct research, construct new knowledge and publish the findings for others as well.

6.2.2 Values Framing the Language Teacher, Trainer and Teacher-researcher Evaluation

The values of LCPP teachers can are interpreted from 21 teacher portfolios of NA5, who responded to questions of teacher philosophy in NA5 as detailed in 4.6.5. The applied portfolio questionnaire is attached as Appendix 7. In teacher portfolios of NA5, evidence of the following values can be found.

> *Language learning and teaching is to a great extent group work between students and teacher, where the student has the most significant role. The teacher is the 'Class Manager' who helps create inspiring conditions for learning. Many students have not internalized the role of an active learner. I aim to teach the mastery of a holistic communication style. Therefore I do not teach disconnected elements, but concentrate on teaching the wholes (telephone, negotiations, presentations, letters, reports etc.) I activate students through written and oral tasks as authentically for work as possible. I wish to treat students with respect and always believe in them, which I also do, although I sometimes get disappointments. By no means do I wish to coddle them. (NA5:P1, translation, and underlining by writer)*

> *Language learning is a process that takes time and a lot of exercise. How you learn depends much on motivation and learning environment. Language learning opens new worlds and perspectives to examine the target culture and language of people speaking it and understanding their culture. Besides language helps to acquire knowledge in the new language… The student's desire to learn the target language is essential in language learning, as it is impossible to 'pour' foreign language into anyone's head. (NA5:P5)*

Teachers of NA5 emphasize the need to provide a solid knowledge base for professional language and communication at work, and building up professional language competence and good interaction skills. A holistic understanding of language seems to come before the learning of language details. Teachers recognize the constraints of the obstacles of short learning time, little resources and students' lagging initiative and motivation. The solid knowledge base for LCPP teachers seems to mean for example This may not always be confirmed by student feedback as will be discovered in section 6.3, where the learner perspective is reported, but teachers see themselves pursuing those goals. Intercultural awareness is identified as an important element of the knowledge base: 'opening new worlds', understanding cultures and gaining an unprejudiced attitude for international contexts are expressions of this aspect.

Based on the teacher portfolios teacher's professionalism also means roots for the knowing such as teachers in the family, further education, self study. Work experience from other than teaching jobs has been significant for the knowing of teachers. Portfolios provide ample information on gained education, its evaluation and plans for further learning. Teacher professionalism also involves attitudinal elements such as, hobby becoming a career, fondness of teaching, fondness of making teaching experiments and the liking of material creation.

Values related to collaboration versus independent work can both be detected. Portfolios reveal a lot verbal expressions of collaboration and interaction with students: how important it is to negotiate the curriculum with students, relate to their traineeship, keep up frank and open dialogue with students, and find out about student values and aspirations (principle of empowerment). Yet, as we will see in the learner feedback, the student experience does not always confirm the materialization of collaborative values in the classroom. The teacher aspect shows a positive side of the values.

Despite the challenges course time cut-backs and minimal resources, the LCPP teachers self-evaluate their work with appraisal and enjoyment, though the conditions for implementing the expressed values are not experienced as positively by all language teachers.

> *Brilliant work: independent, interesting, always active development. Always a possibility to learn form students. A construction that's never finished. I experience opportunities to influence good both within and outside the institution. (NA5:P2)*
>
> *The work is challenging, especially concerning the increasing of motivation and students' internal entrepreneurship. The conditions for teaching are otherwise good, but too few opportunities to meet other colleagues for getting ideas. Opportunities to influence inside the classroom are limitless. (NA5: P1)*
>
> *As for conditions: the economizing has gone too far as they are the students who pay for the cut-downs in the last place. Not enough resources and this way the quality suffers and gets worse. Room facilities, groups are far too large and too little time is given. (NA5: P13)*

Predominantly LCPP language teachers in NA5 are well motivated and professional in their approach, some less renewal-orientated than others. This can be further exemplified seen as we move on to examining teacher and student evaluations of language education.

6.2.3 Intended Use of LCPP for Language Teachers

Based on an inductive analysis (see section 4.4) of the evidence of the data of NA4-7 shows that if an LCPP program is to be effective, the language education can be condensed into the following five principles.

- principle of authenticity
- principle of scoping
- principle of professionalism
- principle of authorization and anchoring
- principle of empowerment

These principles are defined and exemplified in this section as they emerged from the needs analysis material. Subheadings are meant to help link the relevant principle with the source of data.

Principle of authenticity (NA4, NA5-7)

The term ‘principle of authenticity’ emerged, based on several pieces of input concerning relevant communication situations (NA4) and contents of teaching (NA5, Na6 and NA7). Authenticity relates to contents that are realistic, existing and meets to learning needs of the learner. Authenticity also relates in what ‘chunks’ the learning takes place. Authenticity also concerns the ecological validity (Cicourel 2007) of the curriculum content. As transferred to classroom practice ecological validity relates to what extent the teacher succeeds in organizing learning activities that increment the competences required by the workplace in realistic units and contexts. In van Lier’s terms (1996) authenticity goes beyond the usual domain of the term which he sees as authentic materials and authentic tasks. Authenticity, in van Lier’s thinking is as the process of engagement in the learning situation, and as a characteristic of the persons involved in learning. Authenticity relates to self knowledge and to communication between learners, and between the teacher and the learner (van Lier 1996:125).

Widdowson, in turn, has put forward a distinction between genuine and authentic material, genuine as created for language learning purposes and authenticity as ’a characteristic of the relationship between the passage and the reader and it has to do with appropriate response’ (Widdowson 1979:80). Once a piece in introduced in class - the teacher may proceed to do authentic or inauthentic things with it. Inauthentic could be exemplified as conjugating verbs, finding matching synonyms, or filling in gaps. It seems, based on van Lier, that ’it is easy to bring genuine pieces of language into the classroom, but to create authentic opportunities of language use on their basis appears to be quite another matter’ (van Lier 1996:126). In the context of LCPP authentic tasks that are conducted in class are holistic; there may not even be a text, as proposed by Widdowson, but any input that guides the learner to meaningful learning activities, relevant of professional communication. Widdowson regrets that in-authentic language use behavior may be effective language learning behavior, but to call that’ authentic’ seems to confuse the issue of authenticity (Widdowson 1990:46-7). Agreement on the concept of authenticity seems to relate to authenticity as a process of validation or authentication (Widdowson 1990) conducted by the participants (learners and teacher/s ratter than authenticity as a product or property of language or language use.

The goal of needs analyses, especially Prolang, NA4, was to identify the target situation in which an employee will communicate in, so as to help the learners to cope in these communications, and boost motivation. This question is highly relevant is deciding what to teach, and was therefore a central question in NA4 (for questionnaires questions see Huhta 1999:175-176; 181-182).

NA4, Prolang sought to examine the most important communication situations for learners, based on listings of previous studies in industry and business made by Davidsson, Berggren and Mehtäläinen (Huhta 1997: 62). An option was given to respondents to add any situation that was missing. This selection includes for example the situations of Schöpper-Grabe & Weiss (1998) and Weber, Becker & Laue (2000), which categorizes many of the situations further into subcategories. The listing also includes the sample communication situation palette used in the needs analysis of Karjalainen & Lehtonen (2005) for the target groups of science universities. Table 17 exhibits the Prolang listing for communication situations.

Table 17. LCPP sample. The Prolang list of language and communication situations in industry and business. NA4. (Huhta 1999: 176).

LANGUAGE / COMMUNICATION SITUATIONS IN INDUSTRY AND BUSINESS
1. Talking about oneself and one's job
2. Travel
3. Social situations (e.g. introductions, small talk)
4. Routine telephone calls (e.g. taking messages, answering inquiries, making arrangements)
5. Client contacts (e.g. customer service, exhibitions, complaints by telephone, face-to-face)
6. Hosting visitors/Participating in visits
7. Solving computer problems
8. Explaining a process or a (working) method
9. Discussions concerning deliveries, installations, maintenance
10. Fault analysis, solving problems
11. Tutoring a new employee
12. Reading manuals, instructions, professional literature
13. Reading company documentation (memos, quotations etc.)
14. Writing email messages, faxes; taking notes in a meeting
15. Writing memos, reports, documents
16. Giving a presentation (e.g. company profile, product presentation)
17. Meetings, negotiations
18. Other (interpretation, translation, projects abroad)

Sample 11. LCPP - NA4. Language and communication situations in industry and business. NA4. (Huhta 1999: 176).

Table 17 Prolang list of communication situations at work is a comprehensive situations repertoire for any position at a workplace, consequently it is unthinkable that all of the situations can materialize in any individual's work setting. This list is given collected and proposed to the respondents was complemented only by very few additions, actually only item 18, interpretation, translation and projects abroad bearing in mind that the classification is all but exhaustive, and overviewed rather than specified.

The Prolang approach of focusing on communication situations was novel for its time and the list was used for designing the Finnish national vocational syllabus.

Teachers' seminars were organized to disseminate the situational approach. Critique can be voiced against the classification: It is not purely genre-based. It does not purely integrate all four sub skills of reading, writing, speaking, listening and mediation. More than anything, the classification is teaching-oriented, and has worked well as a needs analysis tool and curriculum design tool.

An innovative element in Prolang was the contextual information that was asked in the Prolang needs analysis. 398 descriptions of communication events were received (Huhta 1999: 118-143). This was a major improvement to the tabular data gained by the method of previous written surveys.

A richer kind of data was received compared to tabular results of questionnaire surveys using case descriptions in NA4. An example of the data received is given by a communication case description:

Sample 12. LCPP - NA4. Communication case. (Huhta 1999: 127-8).

> A quality engineer meets the chief of quality of a French company, who is a 45- year-old old woman. The visit lasts a day. The atmosphere has been a little stiff in the beginning. According to the informant the Frenchwoman speaks fluent English but it is she who does not feel comfortable about speaking English at first. The main purpose of the visit was to find out what was wrong with the machines that the French company had purchased from the informant's company. The informant clarifies that the faults in the machinery are usually an outcome of improper usage or a defect in the machine. The guest has also been given a tour in the laboratory of the company, where she and her host had compared Finnish and French research methods. (NA4: communication situation 8; Huhta 1999:127-128).

Communication cases describe the data of location, communicators, purpose of communication, some background factors of the speakers (Huhta 1999: 182). These kinds of communication descriptions were ground-breaking for its time. . However, the 21 teacher-researchers who made the surveys were somewhat disappointed on the yield: The information the Prolang informants were able to give in open answers to a communication situation template (Huhta 1999: 182) were very short. The questions would have allowed for a more thorough description (describe the event from beginning to end, which was requested), but they did not, because the researchers did not realize that non-linguists find it hard to 'report' communication situations to sufficient detail that would be necessary for using the description for development of classroom activities. Despite the richer yield of the Prolang data in comparison to earlier needs analyses the question related to specialization remained open: how is a meeting in the software engineering different from a meeting in mechanical engineering, and how this authenticity can materialize in curriculum design and activity planning. Thus the well-intended plan of NA4, Prolang, for gaining a wide variety of communication examples to use for teaching, was only partially successful.

This is why the approach for understanding the contexts of the communication situations had to be complemented. The professional frameworks of COP-Stadia (NA6) and CEF Professional (NA7) describe the contextual communication situation in such a way that a simulation can be developed for teaching. Profiles provide teachers with ample data of the contexts of various professional using the method of 'professional frameworks of reference' and 'professional profiles'. As described in section 5, these tools provide the language teacher with a quick overview of the language and communication used in the field, an inventory of communication situations typical in the field, the terminology central in the field, and search words for further searches in the Internet and other sources.

The acquired data for NA6-7 is rich and available for further examination (NA6: Huhta et al 2006: 202-228, in Finnish and CEF Professional 2007 in English). one example is given space here. An example of authenticity shows one of the negotiations situations is described in a profile (NA7).

Sample 13. LCPP - NA7. Negotiating with public authorities.

Situation: Unexpected negotiations in the US because of different legislation in the US; giving US a persuasive presentation about a potential robotics line (cheese manufacturing)
Location: client's premises in the US
Persons: project engineer, group of potential buyers
Why the situation was demanding:

The situation was demanding for these reasons: 1) the counterpart was not an engineer, but a hygienist, therefore you must be careful with terminology; 2) the counterpart /representative of the US Ministry of Agriculture) had the power to approve or DISAPPRROVE the plans therefore you could not afford hard feelings or irritation, and 3) the schedule was tight; the inspector had reserved a week for going through the plans, thus there was no chance for any extra time.

Details of the communication:
The company manufactures three kinds of equipment, one being an automatic cheese manufacturing line.

Description:
A whole cheese production line was offered to the Amish area in Michigan, US. The first visits involved getting familiar with the manufacturing of the local Emmental cheese. As the outcome, an order for a production line was placed by the cheese manufacturer. BUT if a company in the US wishes to sell the product to the army or to schools, stringent hygiene requirements must be met and equipment approved by public authorities. The dairy has a need for this.

The interviewee contacted the US Ministry of Agriculture. First, information was sent about the production line; later some information had to be presented on site. The listener was not an engineer, but a hygienist. Several problems were discovered. During a one-week process, negotiations were conducted (full cheese-making line for Emmental cheese) during the daytime and new drawings were made at the hotel during the night-time. A lot of drawings were involved.

The problem was that all parts that were in contact with the product had to be made such that they could be dismantled and washed regularly for hygienic reasons. The parts are washed by dairy workers not having a very high educational level. They needed training. All parts in contact with the food product (cheese containers, piping, mixer, cutters, filters used for the curd, masses pivoted into moulds, mass pressed into cheese) had to become easy to dismantle, wash and assemble. The collected mass will be salted in salt water, after which the cheese ripens on shelves for 3 – 12 months. For hygienic reasons all holes or gutters must be avoided.

The Ministry approved the plans; the manufacturing of the line was started. The lines were commissioned on site. An inspector from the US came to check in Finland that everything had been done in accordance with the agreement. The spirit was positive and constructive. During the visit the inspector presented the principles of establishing long-term hygienic requirements. During the process he focused on the principles and was pleased to find the solutions adequate as the product drawings were being improved.

The installation on site lasted three months. 10 professionals were needed (welders, mechanics, automation engineers) to complete the installation.

Extracted from: Marjatta Huhta (2007) CEF Professional Profile for Mechanical Engineering, NA7.

The situation includes many elements of unexpectedness: changed communication partner, changed 'specifications', new design requirements that involved further design, time stress and an extra constraint of communicating the knowledge to a non-engineer. NA6 and NA7 provide descriptions such as the above, which include the setup the communication, partners, location, and motives of communication, and the action involved in the communication.

We find that one of van Lier's principles (1996), awareness, causes complications in the use of the above cases in class. As a learner can only build on the knowledge and experience he or she has, some of the real world cases can become too difficult for the pre-service learner. To be able to negotiate about a cheese-making automation line, the learner must be aware of the process of automation and the components of a cheese-maker, to know which parts need to be replaceable. Experimentation in class showed that only one group of five knew enough to feel comfortable to negotiate the case; other groups created a similar case that was better constructed on their experience and knowledge.

In sum, we can say that the thick description methods of needs analyses have given broader options to understand, produce and create more authentic communication in the classroom, and offers good opportunities to interlink language and content teaching in LCPP contexts. Experimentation results from trying out the profile background knowledge for teaching in NA6 and NA7 have given promising results, which are reported in Huhta et al 2006 and Huhta (ed.) 2007.

The latest NAs have brought in deeper understanding of the sociocultural settings of communication events, including location, parties, and sequences of events (although not to the level of move structures) that provide knowledge of the authenticity of communication at workplaces. In the following we will explore whether the learning achieved through the needs analyses have become classroom practice.

This evaluation of language education was done in 2002, after Prolang NA4 had been implemented three years earlier, and teacher seminars had been organized around the issues. Unfortunately, the results of the newest results of NA6-7 were not available at that time, although under discussion.

Principle of authenticity - feedback received through evaluation (NA5)

The principle of authenticity appears as a significant element of learner motivation and teacher challenge. When discussing course objectives, their workplace orientation and authenticity, we deal with the principle of authenticity and relevance. In the NA5 evaluation domain experts, language teachers and learners evaluated course contents as to whether they match the needs of the workplace. Many of the teacher and learner voices confirm that workplace orientation really happens in practice, not only in curriculum descriptions but also in the classroom. The responses of sample 14 are given to the evaluation question of To what extent does the content of language teaching meet the competences needed in the working life? (Appendix 6, question 3)

Sample 14. LCPP - NA5. Evaluation feedback on authenticity.

Language teaching is developed to meet workplace needs. Practical examples from using foreign language at work are brought up and practiced. Development needs: must add the reading and writing skills of program specifications. Students need to be familiarized with interactive oral communication such as negotiations processes, e.g. using simulation techniques. For this purpose oral assessment must to be developed. (N5, D4, AutoEng students)

We teach the Prolang situations to the extent possible for the groups. A diagnostic test is done… Language teachers are short of time to discuss points with each other. Overall students get a good package of languages. (NA5, D4, domain experts and language teachers)

For example you use the firm you did your work placement in for company presentation. Applications are realistically from existing job openings. (NA5, D3, students)

These are some of the views of subject specialist teachers and degree program managers, and language teachers. Students in some degree programs agree fully with the teachers' views, some students say they do not know whether the teaching contents meet the needs of the workplace (as will be detailed in 6.3), or a realistic case of some students:

> *I do not know what there is in the workplace. (NA5, D3, students)*

This is a true challenge in language teaching that pre-service learners do not have experience of what to negotiate about or what to respond to a complaint, because of their limited sphere of experience. It truly is not possible to be aware of thing that do not belong to the student's sphere of knowledge or experience (van Lier 1996:10), as is a well-known principle in education. Therefore, it is important for language teachers to have a sufficient knowledge base in engineering to be able to introduce and suggest relevant content - simple enough to be constructed on student's own knowledge, or humbly consult the domain experts when a question occurs. The challenge is two-fold: to know sufficiently about the technical discourse community and its practices and to find out the student knowledge foundations for the new knowledge to be constructed on.

In the evaluation there was no special questions asked about materials, which are often the source of authenticity - or shortage of authenticity. However, the materials issue came up without asking, in the evaluation of NA5 that it needs to be included as an essential component if LCPP. Students view English-in-English books as follows:

Sample 15. LCPP - NA5. Evaluation feedback on materials.

> *1st and 2nd year course book in English should be published as the one in use in English-English and less useful for students. (NA5, D3, students)*

This kind of comment is one of many that oppose the ESP tradition of English-in-English approach with fairly general business content, where students, once again, are taught the generic language. Another criticism relates to the issue of currency of material:

> *3rd year English <u>material outdated</u>. The <u>material should be updated each year</u>. Brilliant material in Software Eng, we had new trade fair material, topical texts. In German the teacher picks up texts in the Internet, really good. In German technical German is excellent. I took student exchange in Germany: I saw things go as the teacher taught us. (NA5, D3, students)*

Learners appreciate when contents are tailored to their specific purpose:

> *A Swedish material made for Auto Eng is good. (NA5, D4, students)*

> *All our subjects (Auto Eng) have material in foreign languages. <u>Study material changes</u> at very short notice, for example <u>we duplicate materials from trade fairs</u>. But we do not ask questions about the foreign material in exams. There's some material in German. There is a video series (6h) on Vehicle Dynamics, developed by DM, substance rather challenging. That can be completed as self study. (NA5, D4, SSIs and language teachers)*

LCPP language teachers have an interest in the material creation, as appears in the evaluation logs, but they find themselves insufficient in taking the time to do it:

> *The teacher must continuously study technology content and choose, modify and create material. This takes an enormous amount of time; due to lack of time the quality of this activity may vary. More collaboration between SSIs and language teachers are needed to avoid studies becoming very distinct experiences. (NA5:D1-2, SSIs and language teachers)*

Material production faces major problems in higher education. The number of specializations in comes in hundreds of areas and the market for each specialization for books is very limited. Therefore publishers wish to produce something good for everyone, although the demand is 'narrow focus'. The field of technology is especially challenging, as current material are out of date tomorrow.

The questions relating to LCPP materials concern the usability of domain experts' books and articles - frequently as too long, complex and unconvertable to learning activity - and beyond the time limits of language courses. Therefore, integration of language with the subject matter would be a good option to benefit from, as long as the students are somewhere around B2 level of mastering the target language. If not on this level yet, the understanding of either the contents or the language suffers.

The complaints of students and teachers in NA5 agree with Hugh Trappes-Lomax (2006), a specialist of language teacher education, who has examined language textbooks and seen how many of them are categorized around the main language areas (phonology, grammar, lexis) and the four skills (speaking, listening, reading and writing). Recent overviews on discourse-cased textbooks can also be found in Olshtain & Celce-Murcia (1991) and Trappes-Lomax (2002).

The findings of NA5 seem to match Trappes-Lomax observations on authenticity of coursebooks. It seems that if classroom practice is authentic, and integrates multiple skills development, students favor the approach.

Principle of scoping (NA5)

The second principle appearing from the teacher perspective summarizes many of the findings under the principle of scoping (for preliminary definition see 6.2).

In section 6.2 scoping was defined from the point of view of language training organizers. Scoping in higher education context curriculum design relates to how syllabus is composed, how curriculum verbalizes the objectives of the course, and how the teacher interprets the curriculum, and transfers it to classroom practice. Scoping is also closely related with the principle of grouping; if grouping is heterogeneous, scoping can become a problem. In the analysis if evaluation discussion logs (NA5) the principle of scoping, appears as significant also from the point of view of teachers. It is typical in higher education that curricula are verbalized in a very cryptic format, and the teacher needs to interpret, what the course content proper must include for various specializations of engineering. One example of these 'vague formulations' of curricula is exemplified here:

> The course prepares the student for using English in demanding work situations, acquire information from professional texts and produce relevant documents such as quotations and reports. Technical texts relevant in the field. Contents items such as company presentations, process descriptions, trade fairs and exhibitions, job application, presentations and business communication. (Stadia Curriculum, 2003)

One language teacher in the evaluation has expressed the objectives of learning in the following manner, which summarizes many of the other, less compactly formulated expressions. The teacher, then, must make an interpretation of the curriculum text as to which knowledge, skills, attitudes, and assessment criteria are prioritized.

Sample 16. LCPP - NA5. Scoping.

The student will cope well in everyday situations (Skill) and those demanded by the future profession (K) both orally(Skill) and in writing(Skill). The student masters the central terminology of the field (Knoweldeg) and professional communication situations (Skill). The student can express him/herself clearly (Assessment Criteria) and understandably (Assessment Criteria) and understands and can be understood. The student gets familiar with different accents (Skill) and knows how to be aware of cultural differences (Knowledge and Attitude) when communicating with representatives of other cultures. The student can use the foreign language in a manner appropriate to discourses of communication events (Assessment Criteria) and knows how to choose an appropriate style and vocabulary (Assessment Criteria).(writer's addtions in brackets)

The student has courage (Attitude) to express and present personal views and has confidence (Attitude) in making presentations in the foreign language. The student has the ability to work as a team member (S) and can trace back knowledge from various sources (Knowlegde and Skill). The student knows characteristics of technical language (Knowledge), understands written language, knows how to translate and interpret (S) texts in his/her field and produce texts (Skill). The student knows how to develop different circumlocutions (Knowledge and Skill) in case he/she cannot remember the exact words or expression. The most important point is that the message gets through. (NA5: P5)

This explicit description by a thoughtful teacher summarizes many of the other replies given about scoping of courses in UASs. The goals include knowledge-based, skills-based, and attitudinal elements of learning, including the criteria for acceptable performance. A point that may be added to this listing is that the student will develop a desire to continue learning the language and thus gains skills for life-time learning. This is one more attitudinal element to UAS course content, also included in one of the UAS curricula.

Principle of professionalism (NA5)

A third emerging principle of the teacher perspective that appears frequently in discussion logs of NA5 both by domain experts, language teachers, and students.

A deeper discussion of this principle is located under the learner perspective, as learners are active in commenting on the aspect of teacher professionalism. Domain experts view language teacher professionalism from the point of view of only one degree program:

Sample 17. LCPP - NA5. Teacher professionalism.

We want to have program-specific language teachers, and then there is a motivation to develop terminologies, more expertise… We want the language teachers to stay the same. The teachers (SSIs and language teachers) would know each other and be able to phone each other… We are happy with our language teachers. They have taken their scope (reviiri) and looked after it well. In collaboration projects language teachers have been active." Head of degree program: "For language teachers the requirement should be company work experience besides degree and teaching skills. You should emphasize the workplace (=business and industrial) experience. Team working skills are also essential. The most suitable teacher should be chosen from the competent ones. You have succeeded well. (NA5, D4, SSIs)

Sample 17 shows how degree program managers would prefer to have their own specialized language teachers. Reality, however, proves that only the very largest degree programs can offer full-time work for the language teacher; therefore the teacher is in the situation of having to concentrate on, say 3-7 degree programs, knowledgeability of such a number of fields becomes a challenge.

From the teacher perspective professionalism can be illustrated by the following extracts from NA5 discussion logs.

If a teacher wishes to encourage and guide a learner to learn a foreign language, both need to aim for collaboration and keep a close enough interaction with each other. Therefore the benefits of learning need to be negotiated with the learner, and learners, to highlight the significance of the activity. Similarly, the life circumstances of the student need to clear to the teacher and through frank and open dialogue find out the goals of life, thus the teacher needs to know the values and intentions of the learner. (NA5:P6)

A motivated student learns best. Continuous exercise is important. The students' level of knowledge has continuously degraded. I aim to prepare students for communication situations; I teach skills needed at the workplace. I make students speak as much as possible; I also speak English to them outside class. I aim to be supportive, but I also give them a kick in the pants whenever necessary. (NA5:P15)

A coercive approach such as the above may also show outside the classroom, indicating an ignorance of the difference between front-stage communication and back-stage communication, between insiders (Sarangi & Roberts 1999). But even so, bad-mouthing back-stage communication about students is also a message to the internal discourse community about values concerning the learner approach.

Learner-submissive experiences are a small minority in NA5, but - as we will see in the learner experiences - the negative student experiences also appear, and can be understood as coming from uncritical teacher approaches.

The majority of language teachers based on NA5 possess a firm belief in encouragement and support of the learners, also consideration of their values and fears, but as we observe above discouragement is also present, both towards students and in colleague talk. Learner-centeredness and the significance of the student in emphasized in teacher portfolios. To demand a lot from the student and emphasize that language learning takes time, exercise and systematic work seem to be respected values in the trade.

As we move on with the results of the evaluation, a new principle seems to appear, which we choose to call the principle of authorization and anchoring.

Principle of authorization and anchoring (NA5)

This fourth principle of anchoring and authorization relates to the legitimacy of language education in the education organization. There have been numerous attempts to consolidate the position on languages in the context of the UAS system, as was reported in 4.5. through legislation, update surveys (Kantelinen & Heiskanen 2002, Kantelinen & Airola 2007) and Ministry of Education financed projects. However, the position of language education in UASs in pending, and drifting between centralization and decentralization (Löfström et al 2002:58). Decision making and resourcing of language education concerns are scattered in UASs as a mismatch element that is looking for its slot.

Links of language education to the internationalization of educational institutions are expressed in several UAS strategies (ARENE language group). In the two UASs of NA5 language education is part of the UAS strategy through some formulation of 'support to internationalization'. Therefore the impact of this aspect was seen as worth evaluating. In the evaluation a question was asked whether the LT contents and implementation support the internationalization of the organization and if so how this takes place. In both UASs there are challenges in internationalization, which will not be detailed here because of their specific character. The discussions notes of NA5 voice the fact that the situation looks different from SSI and language teacher perspective than from students' perspective.

From the point of view of domain experts and language teachers, reality looks like this:

Sample 18. LCPP - NA5. Anchoring and authorization.

In Auto Eng it is important to be able <u>to participate in international projects</u> and teacher exchange. There is <u>no student exchange.</u> Those taking part in Formula Student and other projects can enroll to the language teacher for <u>rehearsing presentations</u> to be held abroad. (NA5, D4, D4, SSIs and language teachers)

There's a strong <u>need for field-specific internationalization</u>. Language teaching and the professional subject could be integrated. There is a need for <u>technical translation</u> services. <u>Students' translation</u> of project documents should be supervised." We give a 23 page article (current status review) to a student and ask them to summarize. (NA5, D4, SSIs and language teachers)

Language teachers are involved in intercultural communication teaching, their input is appreciated - and improvements proposed.

> *Profile of language teaching has improved. It is positive that language teachers also teach the course in cultural awareness. International students should be utilized more. Motivational factors are important: how to communicate that language helps in the professional and in the students' career. (NA5, D3, SSIs and language teachers)*
>
> *Cultural awareness is taken into account all the time. (NA5, D3, teachers and SSIs)*
>
> *Cultural awareness does not come up in any way. (NA5, D1-2, students)*
>
> *Course in Cultural awareness is brilliant. We have directly been able to influence its content. Teaching and material are in English. (NA5, D3, IT students)*
>
> *We should have more cultural awareness; if it somewhere hidden in the texts the teacher should emphasize it. A course is coming next year."(NA5, D3, IT; Power El eng, Electronics students)*

Language teachers feel they take up intercultural issues well in class. The students of the some (perhaps other) programs do not all experience the same. Some students suspect that content might be there, but concealed, amongst all other matters that there is not enough time for:

Based on both practice and theory (Byram 1989, Kohonen 2005, Risager 2005) intercultural issues are becoming more and more important, especially in a world with lingua franca English spoken as a common language and major proportions of understanding need to be built on benevolent interpretations of total communication rather than linguistic output. The survey of Confederation of Finnish Industry (EK 2005) confirms this trend. Students recognize the need for more content in this area.

In the evaluation analysis we now move onto discussing what UAS teachers and students say about the contents and methods of language teaching.

The question on authorization by the organization by strategy, by needs of the target field, is still very vague. Language education tends to be a necessary add-on element in engineering education, rather than a strategy-driven natural component of education. It is best to allow the informant voices themselves be heard:

> *Languages are set at minimum requirement. Language teaching is not the taker number one. English and German are the languages of automotive engineering - there is no change here to be predicted. (NA5, D4, domain experts and teachers)*
>
> *Resources are based on old practice. The established practice is good. Students, however, appreciate professional subject studies more. There is lots of need of language and culture at ABB, software companies. All need knowledge of manual reading, user interface descriptions and business customs practice. Not all in El Eng need languages, in IT practically all do. (NA5, D3, domain experts and teachers)*

The links of language education with globalizing companies is vital. Already one of the conclusions of the Prolang (NA4) inquiry was that more collaboration between workplaces and educational institutions is necessary for developing language teaching towards the needs of the workplace (Huhta 1999: 161). The evaluation of NA5 provides support for this:

> *There are three collaborating parties in organizing the language education program, first, the SSIs of the same program, second, the language teachers of other programs within the university and other domestic and international colleagues and third, company representatives. These are part of projects such as "From Our Own Correspondents", where students report on company current issues with students of other countries. (NA5:D1.2: domain experts and language teachers)*

Whenever collaboration between workplaces and educational institutions take place, the outcomes produce an impact. Not always precisely the impact that was expected but unpredictable impacts to recruitment, student traineeships, mutual projects and goodwill. Stronger ties between workplace organizations and language experts were taken up even more strongly in the newer needs analyses of NA6-7. The persistent work of UAS language teachers in researching language needs in companies is anchoring language teaching where it belongs - business and industry and future language and communication needs.

Principle of empowerment (NA5)

The outcomes of language education are evaluated in NA5 through overall comments, points related to atmosphere and motivation, promoting and discouraging aspects of teacher activity and overall feedback to Language and Communication for Professional Purposes, which will now be discussed.

The overall feedback to language teaching is positive (NA5), voiced by specialist subject informants, language teachers and students.

Sample 19. LCPP - NA5. Empowerment.

We have examined the feedback alongside with learning from workplaces: good feedback. Customer service works well. Those graduating from us do well, including language. The employer is satisfied. Students have coped well in foreign language contacts. (NA5, D4, domain experts and language teachers)

Teaching situations are versatile; we practice all language subskills with emphasis on oral communication. The study material can be a book with tapes or material I developed myself. Students produce problem-based material in order to be able to apply their knowledge in practical work situations.
During the course I make an effort to argue for the usefulness of the assignments. (NA5: P14)

Students also suggest improvements - many concerning oral skills, and classroom practice:

There are oral and written contents. We could have more oral communication situations. But you must have a certain skill before you can speak (Swedish). We have lots of homework. That's good. Regular quizzes are good - you have then already studies for the exam. (NA5, D4, students)

We've done listening quite a bit. There's not much that can be done for the contents. Often one person only speaks and others are listening." (NA5, D3, students)

Language labs have been used in some courses a lot, some too much. And gaps have been filled. (NA5, D3, El Eng students)

Assignments are pretty practical, although they feel like forcefully put together. Repeating sentences after the teacher feels childish. Saying separate words or clauses to get the pronunciation right is OK. (NA5: D3)

Despite the wishful statements by language teachers of holistic communications training and relevant content, there are groups of students who still face traditional teaching or bad practice. It seems that in the teachers' learning there is an ample space for unlearning, discarding old knowledge, and making way for new responses and mental maps (Hedberg 1981).

Traditional teaching can be exemplified by 'one speaks, others listen' practice, monotonous overuse of one method. There is a need for the development of teaching skills, though it must be pointed out that most student comments showed appreciation of current practice. Empowerment can take place in different forms, as two approaches below illustrate.

My task is to coach students to succeed in their profession at work. To make them succeed in communication good interaction skills (cultural awareness) are needed as well as discourses of the profession, and learning and unprejudiced attitude in international contexts… I experience myself more as an engineering educator rather than a language teacher, because the most important goal of language teaching here is to support professional competence development… I refuse to use atomistic learning tasks such as multiple choice questions, gap filling and true-false ques-

> *tions. Students need to solve situations from beginning to end at work; therefore they are the kind of tasks I give them. This supports the development of their thinking and understanding. (NA5:P2)*

> *Teaching languages is interaction between the teacher and student. The teacher can take the student's initial level into account and also the student's aims and the course aims while planning the course. The teacher can get the student enthusiastic and motivated in language learning. The teacher must him/herself like the language and culture s/he teaches to motivate others. For the student it is important that s/he gains experiences of success, which motivates moving on in the studies. In the teaching the teacher can adapt her/his teaching to learner learning style. By diagnosing the learner level and interests the teacher can tailor the material to interest the student. (NA5, P5)*

Professional teachers nurture learner empowerment, interaction, frank and open dialogue, support for higher self esteem and success in their future profession.

We have illustrated here these points that have risen out of the discussion logs of NA5 inductively, discovering that many of the elements discovered for language training in the private sector are repeated and receive a slightly different interpretation in the public sector context.

6.2.4 Language Teacher Contribution to LCPP

The language teacher angle was examined by looking at the contents, implementation and values of language teaching in NA4-7. Input for teacher qualities are also provided by the business sector analyses of NA1-3. Five principles are central in the view of the LCPP teacher: authenticity, scoping, professionalism, authorization and anchoring, and empowerment. There were also a number of comments in favor of the principle of grouping, but less than what emerged for the two other stakeholders of language training organizers and learners.

In the light of the NA5 input, the language education program must be connected to the strategic process of the organization, specifically to internationalization strategies, as expressed by respondents referred to in Section 6.3. Evaluation reports of existing literature show that some hgher education institutions are still outside the strategic processes, and therefore systematic development and resourcing depend on local conditions, resulting in inconsistent quality and heterogeneous practices as pointed out by previous studies (Sajavaara 1999; Löfström et al. 2002; Kantelinen & Heiskanen 2004; Kantelinen & Airola 2007). This need relates to the principle of authorization and anchoring, which universities of applied sciences are currently struggling with. Some UASs have built their language strategy within their overall strategies and maintain an independent language center or have their language teaching coordinated by some organization.

6.3 LCPP by Employees and Language Learners

Unfortunately no more than two of the seven needs analyses provide data about the learner perspective. NA4 and NA5 provide information on how learners feel about the language education or service they have received as learners. NA4 analyses the findings of 197 employees in 69 companies on how their language skills are sufficient, which competence gaps occur, and what they see as strengths and weaknesses of their language profile. NA5 is a cross-evaluation of language teaching in two UASs, and how the learners perceive their learning in that context. NA6 and NA7 also included feedback collection from students (Huhta 2006: 101-153 and CEF Professional 2007). Their yield is, however, so cryptic that they had to be left out of the analysis. Table 18 summarizes what data the two needs analyses provide about the learner perspective.

Table 18. NA data for the learner perspective.

	Whose perspective	Method of inquiry	Contribution
NA4	197 employees in 69 companies	survey	learner strengths and weaknesses as employees; feedback to language education
NA5	students at UASs	evaluation of language teaching at two UASs, teachers and learners as separately, then together	learner in learning
	learners	teacher portfolios	teacher views of learning
	Details of data collection to be found in sections 4.6.4 - 4.6.5		

Cross-evaluations of language education in NA5 show how learners experience the learning. Teacher portfolios of NA5 communicate teachers' views on learners and their role in learning. In the scrutiny of learners it seems important to distinguish between the groups of in-service learners (NA4) and pre-service learners (NA5) as attitudes and aspirations vary based on learner situation. The learner values are now scrutinized in the light of NA5 findings in line with evaluation research practice, where values framing the LCPP program need to be considered.

6.3.1 Values Framing the Learner Experience

The values of learners cannot be looked in isolation from the learning set-up and their interaction with the teacher because that is where knowledge about learner values takes appearance. Learners in the education system (NA5-7) in the context of UASs vary from mature, goal-oriented learners who see themselves five years from the current and work accordingly to those who keep searching, focus on the attractive media world its offerings. Then there are the standard learners who experience growth going through days of firm aims and diffuse search. Technology, sports and entertainment choices influence their way of life. Considering the learner age - in undergraduate education 19-25 years of age - many experience the first years of independent living and due experimentations. In times of economic recession, young people may experience dismotivation, depression, disorientation, and emotional constraints - be they caused by initial independence, breaking-up families, girl/boyfriend hazards, shortage of money, unemployment.

The values of learners in the public system depend a lot how the students experience the entrance to the degree program. If they enter as students of first priority degree program, their motivation level is high at the start. If they fail their entrance to their 1st and 2nd choice program, their motivation can be low still in the 3rd year, if they have not dropped out already. Many young students' limited experience blocks them from being able to imagine what they would like to do for career. Fortunately arrangements such as practical training in companies often helps students see whether the field they chose (often by haphazard reasons) match their aspirations.

The learner values therefore vary a lot - students with good background skills may have weak motivation and learners with modest or weak academic skills may have surprising persistence to make their life dream come true, despite short background studies.

The following teacher views vision the optimal learning in the minds of UAS teachers (NA5, teacher portfolios). There are some of the aims language teachers have in mind for the students:

> *It is central in language learning that the student has motivation. The student needs to make an input, practice and participate and preferably use all possible opportunities outside class to learning language. An enthusiastic and motivated student learns quickly. As learning accumulates the student's own input in the learning process grows more essential. The student learns to use language as a tool for learning new things. (NA5:P5)*
>
> *The teacher is a Class Manager that helps create inspiring conditions for the learning. Many students have not internalized the role of and active learner. (NA5:P1)*
>
> *We need to guide the student to systematic study and commitment. (NA5:D3, language teachers)*

A number of expectations are voiced for learners by teachers in NA5. The students are expected to make an active input, practice and participate, not only in class but outside the classroom. The learner should involve him/herself in systematic study, show commitment, and additionally, be enthusiastic and motivated. Thinking of a learner in a four-year degree program, this may be a tall order to ask for, even if inspiring conditions are provided by the teacher, as mentioned in the above quote.

However friendly and encouraging some of the above teacher views appear to be, the teacher statements communicate about the learner as object, the teacher as the agent of the action, based on the traditional view of the learner as a recipient of knowledge, and teacher as the source of the knowledge. Luckily, visible efforts to involve the learner as an equal partner also appear in teacher comments, as appears in the below comments of teacher portfolios:

> *Every student is worthy, even if his or her language ability would not be good or excellent. I work to find the student strengths in interactions. Successes and higher self esteem encourage the student to independent knowledge acquisition and study outside class. (NA5: P14)*

> *If a teacher wishes to encourage and guide a learner to learn a foreign language, both need to aim for collaboration and keep a close enough interaction with each other. Therefore the benefits of learning need to be negotiated with the learner, and learners, to highlight the significance of the activity. Similarly, the life circumstances of the student need to clear to the teacher and through frank and open dialogue find out the goals of life, thus the teacher needs to know the values and intentions of the learner.(NA5:P6)*

The above views, fairly common, emphasize the recognition of the learner as a respectful individual, equal to the teacher and a collaborator on equal basis. The question remains: can classes with high number of students support this kind of collaborative values, or are we back to back to the traditions of the banking concept of learning, where knowledge drawn from the teacher's bank, deposited on the learner account and used by learner as the need arises.

Values expressed by students were not separately asked in any of the NAs, therefore judgments of student values are collected from comments by learners at different stages of evaluation discussions and their logs. Based on comments in different discussion logs, it can be understood that students value technical orientation of the language teaching, group spirit and relaxed atmosphere, systematic procedures of learning, and considerate and thoughtful attitudes by teachers. They also require a lot from themselves: student involvement and group discipline.

6.3.2 Intended Use of In-service Learners (NA4)

In-service learners are already at work; thus intend to use their language and communication skills for work purposes, and naturally also for their private use. It is therefore significant to what extent they experience their skills sufficient or not. The first described context reports on the functionality of language skills at work for NA4.

NA4 provides input to this evaluation question. In the respondent feedback the the focus is in the gap between TSA /target situation analysis) and present situation analysis (PSA) in Dudley-Evan &St John's terms (1998:125). The strengths and wekanesses relate to TSA and the learner lacks between TSA and PSA. The feedback to the education system approaches the PSA, on an education level, aiming to idenftify how the education systme could cater for current language needs more to the point.

The strengths and weaknesses of language skills were asked from both employees (n=197) in several companies (n=69) in NA4. The data collection details are given in section 4.6.4.

As employees self-evaluate their language skills they report that are strong in reading, listening and professional terminology, but they know too few languages, they recognize weaknesses in intercultural skills and oral skills (Huhta 1999:81). These are the major shortcomings from the individual's perspective. From the discourse community perspective of companies, personnel managers agree that the strengths are in reading and listening, but also in written skills rather than professional terminology, which is seen as a weakness. Major weaknesses seen by personnel managers are shortage of oral skills, knowing too few languages and shortage of intercultural skills as needed and shortcomings in intercultural understanding (Huhta 1999: 83) - the same items as reported by individuals, only different order from the discourse community perspective.

Both employees and employers in NA4 agree on three issues that need to be focused on in education and training: (1) oral skills competence development, (2) intercultural awareness development and (3) extending employees' language repertoire from the domination of two languages to a diversity of the number of languages.

Learners who work in professional positions in companies, based on NA4, fall short of the requirements they face in using English at work. More details of the quality and quantity of the shortcomings are documented (Huhta 1999, sufficiency and quality of language skills 1999::79-82; difficult communication situations 1999: 106-112; communication situations by gender 1999:115-117).

6.3.3. Intended Use of Pre-service Learners (NA5)

The learner values discussed earlier as varying motivatition and commitment, high goal-orientation of a number of learners, competing extracurricular activities, competion of language study with technical subjects - are factors that influence the learner experience in language learning.

NA5 provides information on how pre-service learners experience their language education. They first intend to use language and communication skills for study, later for recruitment and work, and also for their private use. In the NA5 evaluation the students were involved in an evaluation discussion first without their teachers, then with their teachers in cross-evaluation, to agree on the contents with their language teachers of the degree program. The method is discussed in 2.6. and the data collection in 5.3. for degree program details. In the inductive analysis of the discussion logs from NA5, it became necessary to add another principle to the preciously suggested principles to describe an essential element of the learner point of view. We call this new appearing element the principle of agency and autonomy.

Principle of agency and autonomy (NA5)

A new principle of LCPP emerges through an analysis of the learner perspective, which does not appear by teacher or training organizers. The new kind of comments concern some aspect of influence and self respect:

Sample 20. LCPP - NA5. Agency and autonomy.

Students have not been allowed to influence for the contents of 1-2 year courses; for the third year to a certain extent. (NA5: D1-2, students)

We feel that we have not been able to influence at all the implementation of teaching. (NA5: D1-2, students)

More freedom to influence in the studies. (NA5: D4, students)

Students cannot influence the content. (NA5:D3, students)

Usually progressed in a teacher-centred manner, [student] wishes have also been taken into account. (NA5: D4, students)

The above views by students demonstrate that students wish to have agency in the essentials of their learning - choice of contents, choice of methods - but also self-regulation and responsibility, as suggested by van Lier in his analysis of autonomy (1996: 12-13, 98-121). The agency wish does not only relate to planning but also implementation of classroom events.

Learners, in their views, emphasize their willingness to be part of the planning, content design and implementation. As it was difficult to find one term to describe the category, two parts are included in the principle, that of agency and that of autonomy, because some of both are included in the findings.

In reference to Kohonen, the classic definition autonomy is essentially a "capacity - for detachment, critical reflection, decision-making and independent action" (Little 1991: 4). For autonomy to increase, the student needs to develop a responsible, self-directed psychological stance to the process and content of learning. In terms of the conception of man, the student is seen as a self-directed, intentional person who can be guided to develop his or her competences in three inter-related areas of knowledge, skills and awareness: (a) personal awareness and self-direction, (b) awareness of learning processes, and (c) awareness of language and communication (Kohonen & Kaikkonen 2001; Kohonen 2005a).

The forthcoming comments of students concerning their values, however, only partly relate to autonomy (van Lier 1996, Kohonen 2005a) but perhaps more profoundly to the social cognitive theoretical notions of human efficacy and collective agency. According to Bandura (2001), humans have little incentive to act unless they believe that they can produce desired effects and forestall undesired one by their actions. This is what students seem to be saying in their comments. Bandura continues:

> The growing interdependence in human functioning is placing a premium on the exercise of *collective agency* through shared beliefs in the *power to produce effects* by *collective action* (Bandura 2000: 75).

The student comments concerning their values show that students wish to have a collective contribution in their language study:

> *If the atmosphere is forced, language does not motivate. We were lucky enough to keep separate groups still in the 3rd year. Presentations horrify you, but <u>student involvement</u> is important, thus <u>presentations must stay there</u>. It is easier to learn in a familiar group." (NA5: D3, students)*

Personal achievement, in terms of knowledge, skills and rewarding social relationships, is tied to intrinsic motivation through the person's self-determination and autonomy (van Lier 1996:121). Some students experience disregard, and exclusion from the desired 'collective agency' in their learning of language.

> *<u>Work background is not considered</u> at all and the only differentiation takes place based on background education. Students have <u>no experience in how</u> work and study backgrounds influence constant and methods of language teaching. (NA5: D1-2, students)*

> *Work background is not taken into account at all; the only differentiation takes place based on matriculation exam or vocational education background. Students do not have experience on how work and study backgrounds could influence teaching content. (NA5, D3, students)*

> *The initial level is diagnosed, but <u>the results are not utilized</u>. (NA5: D4, students)*

The above comments sound as if learners feel outsiders in their own learning, which may not be intentional by the educators. This is neither a dominant practice based on the evaluation logs, but in the course analysing lucky and unlucky learning events, the above comments are true experiences by some students, which need to be addressed. Learners wish, thus, not only to taken into account as objects, but as equal partners involved in the planning, implementation and learning. Learners want to feel that they share collaborative agency over the learning events and autonomous integrity as individuals and learners.

The opposite is also true: as soon as the students feel they are taken into account, they give an appraisal:

> *Course in Cultural awareness is brilliant. We <u>have directly been able to influence its content</u>. Teaching and material are in English. (NA5, D3, IT students)*

Students in the very same program, however, may experience the same situation differently; therefore it may be that the effort does not always hit the right note.

Other principles, those of grouping, professionalism and encouragement, coincide with the principles already brought up by the language training organizers and teachers.

Principle of grouping (NA5)

Another principle emerging from the NA5 data - familiar also from S1 and S2 perspectives - seems to be very central for students, as a great number of comments in the discussion logs relate to grouping.

Students wish to have their level and background to be diagnosed and also taken into account in grouping and in the teaching. It seems only fair that results of diagnoses should be utilized.

Grouping is related to both the number of students or student sub-groups (specializations) and levels of language proficiency in the same group.

Sample 21. LCPP - NA5. Grouping.

> *In heterogeneous groups it is difficult to offer something that motivates all. We need representatives of companies come and tell in the beginning of courses about languages at work. (NA5: D4, language teachers)*
>
> *The diagnosing of initial level has resulted in differentiating between students with matriculation examination or vocational background and a small test. It is expected that weaker students become equally proficient during the same course. This is not fair. (NA5, D1-2, students)*
>
> *The same stuff is offered to all the students. There should be separate groups for different specializations. When the same group has electronics and medical eng students, neither gets what they need. Why cannot we have separate groups?" (NA5:D3, students)*

Grouping is closely linked with the principle of authenticity and specialization of the groups. If there are many specializations placed in the same group, the 'wide angle' approach (Hutcheson & Waters 1980), complained by students, and appears to be the only viable option for large, heterogeneous groups.

One of the procedures that resulted from the evaluation of NA5 was the development of diagnostic language testing, to alleviate the problem of diverse groups. The earlier practices were occasional or regular diagnostic tests by individual teachers, determined by teacher preferences, for example grammar only, vocabulary only, no testing at all or a mix of these. Some teachers felt, however, in the evaluations this was quite sufficient:

> *Students with vocational school background take a diagnostic test; if they fail, they need to take a preparatory course. Those with matriculation exam take a language level questionnaire, no prep courses; they take courses in evening school to improve their skills. The weak students have it very difficult to reach required level. (NA5, D3. language teachers)*

This statement can be interpreted as reality or a situation to be aimed for. Based on student views the latter may be the case.

The purpose could only be to differentiate students within the group, not for example allow some more studies than others. This is how students felt about the situation then:

> *The student level is not at all tested and taken into account. You should have diagnostic test in the beginning and different courses according to the results. (NA5, D4, students)*

> *There should be a diagnostic test; the best ones could be released from courses. (Despite the test, writer's addition) It was horrible to see that those with matriculation exam background and vocational school background were merged in the 3rd year to the same group. This cannot be done! (NA5, D3, students)*

> *Student level is judged only using a small test. It is expected that those with lower skills would become equally good language speakers during the course. (NA5, D1-2, students)*

Many of these problems have disappeared since comprehensive diagnostic computer-based language testing was introduced in 2005 (Then Stadia, nowMetropolia diagnostic language test). But even if the diagnosis is done, it does not necessarily mean that economically viable groups can be maintained for smaller specializations, when groups shrink as result of dropouts.

Heterogeneousity and too large group size cause dismotivation based on NA5 student comments:

> *Depends on background. This actually means that - some people cannot manage it and others get frustrated. We should have more groups. One translates and all the others are passive. (NA5, D3, students)*

> *Group size is a problem: we have groups of more than 30 students. (NA5, D3, students)*

> *Group sizes and differences in language level have a negative impact in the atmosphere. Shortage of time does not allow for the personal problems or life situation of an individual student. (NA5, D4, language teachers)*

> *We had a 60 student class in the first year. There can be no such thing as good atmosphere there. Group size should not be more than 30, preferably 20. (NA5, D4, students)*

> *Group size is far too big; levels between students far too big. (Auto Eng) You cannot be motivated, if the situation is hopeless. Two groups were merged together. (NA5, D4, students)*

The principle of grouping is also very close to the principle of authenticity and relevance, in the way that students wish the groups to be split by specialisation and by level of language, which is not always economically viable. Understandably, comments on group size were not mentioned in the smaller UAS, where group size does not seem to be a problem, whereas comments from the large UAS were frequent. The learner perspective for grouping seems to be unanomous on these points:

- separate groups are needed for separate specializations
- separate groups are needed for different levels of English
- learner level needs to be diagnosed and teaching matched to level
- group size preferably 20, absolutely no more than 30

Economic constraints cause learning environments where learning cannot be optimal. The learner perspective above is still worth documenting and aiming for.

Principle of scoping (NA5)

A third principle from pre-service learners that appears through learner experiences in the discussion logs is the principle of scoping, as emerged from the teacher perspective, section 6.3.

Though language teaching is felt by both staff and students as workplace-orientated, critical points about the contents of courses are voiced. Students express their views on the teaching content in one clear direction, more technical orientation for both the two UASs, demanding more 'narrow angle' (Hyland 2002, Huckin 2003) :

Sample 22. LCPP - NA5. Narrow angle scoping.

Already in the first year we should move from telephone practice <u>to more technical content</u>. Teachers <u>should know more about the professional field</u> to make language teaching as useful as possible. (NA5, D3, students)

Some classes have needs analysis, others not. In Auto Eng we should have <u>more technical content</u>. Some other courses have had professional terminology. There are mistakes in the technical texts. (NA5, D4, students)

<u>More technical vocabulary</u>. <u>Interesting subject matter</u> motivates. (NA5, D3, students)

The contents should be developed <u>more to the technical direction</u> for understanding the terms of the field. .Already during the first course it would be good to move <u>from telephone calls to more technical content</u>. (NA5: D1-2, students)

From the teacher perspective scoping and authentic content are important. Based on learner comments, however, not all teaching practice meets the learner expectations of narrow scoping.

Principle of professionalism (NA5)

As for the chosen content the students give comments on realistic planning, reasonable time given for assignments and student wishes for technical orientation. Narrow angle language courses receive support. If not, teachers are advised to know more about the specializations they teach. The responses relate to this question: “How work-place orientated or practical are the implementations of language teaching? How could the implementations be improved?” (see Appendix 6, Question 10)

Sample 23. LCPP - NA5. Teacher professionalism from the learner view.

[How work-orientated or practical are the implementations of language education?] OK. Really practical. Such as using real material in class. (NA4: D5, students)

The English course is <u>very functional</u>, in German as well. (NA5: D4, students)

[Language] <u>teachers should know</u> more about the <u>student specialization</u> to make language learning as useful as possible. (NA5: D1-2, students)

Some of the students are happy with course content and the professionalism of the teachers. A clear standpoint is expressed by students to the ‘narrow angle’ view that came up in the scoping of the teacher (S2) perspective. As domain experts also demand: degree program should have their own language teachers to have time to specialize in their field.

Here also students wish to be participatory, rather than just objects of listening to the teacher. They appreciate feedback, not only for good students, but to all students.

A good teacher is <u>supportive</u> and <u>requires enough</u>. They certainly <u>require a lot here</u>. In Swedish we had a substitute who did not require anything. The students learn, if they are required. The teacher should <u>not embarrass the student</u>. (NA5, D4, students)

A teacher needs to be an <u>attentive listener</u>. Sometimes there can be a good reason for not having done assignments. There should be <u>flexibility</u>. (NA5, D3, students)

Often the motivation level is 0: some students pass without doing anything, others do not pass in any way, or barely 1 (the lowest grade). Why can we not change the teacher, if the chemistry isn’t working? Face value (pärstäkerroin) has a 50% impact. Teacher’s personality, teaching style, relevance of tasks impacts motivation. It seems that the tasks are similar from year to year, only words are more difficult. Hasn’t anything new happened in language teaching? We want more of <u>producing language OURSELVES</u>.” (NA5:D3, students)

In English the teacher <u>supported a lot</u> and found <u>good sides in all the students</u>. (NA5: D4, students)

Professionalism is also supportive behaviour and constructive feedback to all students despite level of skills. But also, teachers are respected if they are required enough work. Another point about professionalism is the ability of differentiate between front stage communication and backstage communication in the teaching profession (Drew & Heritage 1992, Sarangi & Roberts 1991: 21-24). Problems of missing resources and organization hazards are daily concerns for teachers, and need to be discussed in the organization. Students, as we will see in 6.3., find it awkward that backstage communication is brought front stage:

> *Language teachers should not complain about missing resources to the students. It nibbles off credibility from the studies (vie pohjaa opiskelulta). Let's do what can be done with current resources. (NA5, D4, students)*

Professionalism - or its deficiencies - also relates to teaching methods in class. Some students report on outdated teaching methodology, which students feel they do not benefit from.

> *The teacher says: "No asking questions, a slot: fill it in. This is what they did in the vocational school. Sometimes here as well!" (NA5, D3, students)*
>
> *Doing the exercises depends on the student. Regular quizzes* (kuulustelut) *are good - you develop in a systematic way. You can discuss with some teachers, but others you avoid. (NA5, D4, students)*
>
> *Also the language teachers' massive workload can show as fatigue and routine behaviour, which can also have its negative impacts. (NA5, D1-2, language teachers)*
>
> *Negative impact: irrelevant matters (for example talking about teacher's own personal concerns), obligatory nature, wrong level, snapping (tiuskiminen), too large groups. (NA5, D4, students)*
>
> *Off with the penalizing* (piinaamiset). *If a student cannot pronounce right, others may have fun, but the one who's trying suffers. Every second of the students liked to go to class during the first two years, every other had diarrhea (vatsa kuralla) when he/she remembered the next days' schedule. (NA5, D3, students)*

One comment at the end of an evaluation log by a record-keeper of the evaluation discussion states:

> *Students reported teachers' names of who was good and who was bad at motivating students. On hearing the discussion I can conclude that encouraging and happy teachers motivate, suppressing (latistavat) and discouraging teachers do not."(NA5, D4, discussion log, students)*

Teacher professionalism from the student point of view seems to include at least the following points. A professional needs to differentiate between front stage and back stage talk (Sarangi & Roberts 1999: 21-24) Institutional talk is goal-relevant in institutional ways; its is clear that 'institutional talk' is defined in ways of the public face of the institution. Professionals may need to withhold expressions of surprise or sympathy in response to client talk (Drew & Heritage 1992). Context must be approached from the perspective of participants, the setting, the behavioral environment and language as context (Duranti & Goodwin 1992), in these case students as learners in a public institution. Front stage talk represents the institution, supports its administrative practices and respects collegiate work, including that of other language teachers, domain experts and administration. Backstage talk can involve debates over resource use, group formation, salary problems, internal politics, and management procedures as well as private matters such as stress, workload, building projects or interpersonal issues, which are conducted in-house, not front stage with students.

A professional attitude avoids value-laden standpoints to collegial decisions, rather presenting a balanced view of both differing views. The teacher demonstrates her/his own attitude to work by the presence or lack of enthusiasm. Students are treated in an attentive, supportive, and encouraging manner, avoiding abrupt criticism, personal comments, faultfinding, irony, or bad-mouthing. Treatment on equal basis is expected by students. Emotional approaches to student behaviour is avoided, rather delayed, analysed calmly, and reported in reflected, balanced compromises. Professionalism is based on regular updating of knowledge, through collegial collaboration, courses, conferences, reading and writing, so as to stay in touch with current development of the field, domain developments, and teaching methods. The teacher him/herself, should take criticism well, listen attentively and develop a humble attitude in learning more about group and interpersonal communication skills. All of these points come up in some part of the evaluation logs.

The fourth point appearing in student evaluations relates to the atmosphere of encouragement.

Principle of empowerment (NA5)

The evaluation discussions included a question concerning how to arouse, support and maintain motivation during and after studies. Learners include familiar elements of motivation: well scoped content, professional content, interesting subject matter as follows:

Sample 24. LCPP - NA5. Empowerment from the learner view.

> *A text from <u>your own field</u> arouses interest. It is nice to read them: field-specific, interesting (NA5, D3, students)*
>
> *<u>Professional texts</u>: we read them in class. Once you find you understand, you get it that is what <u>motivates</u> you. (NA5, D3, students)*
>
> *<u>Interesting subject matter</u> gives motivation. Emails have been good."(NA5: D3, students)*

Some of the contents of these points go back to the principle of authenticity and relevance, but also motivation. When the contents are relevant, students interest is high. Motivation can also be promoted by thoughtful grouping and respectful attitudes of both teachers and learners, as can be seen in the below comments:

> *The <u>atmosphere</u> is good in English and German. <u>Pair work</u> really constructive. We had this in Swedish as well before a new teacher. A lot depends on <u>teacher attitude</u>. The learning atmosphere depends on <u>the group</u>. If the group is good, that promotes learning." (NA5, D4, students)*

Group spirit and group composition influences atmosphere. This is generally good in Auto Eng and a relatively relaxed atmosphere. Students participate actively. Some groups have good group discipline. (NA5, D4, language teachers)

If the atmosphere is forced, language does not motivate. We were lucky enough to keep separate groups still in the 3rd year. Presentations horrify you, but student involvement is important, thus presentations must stay there. It is easier to learn in a familiar group." (NA5: D3, students)

Mature students also recognize that besides group spirit, group discipline and active learner involvement also need to be catered for, as we already saw in connection with the principle of agency. Encouragement or discouragement can easily be offered through assessment practices, which has been left out of the scope of this study.

Teacher attitude bears a major impact on how learning feels and whether an encouraging atmosphere can be created. Aspects of atmosphere and motivation come up in different contexts of the discussion logs, also relevant for the principle of encouragement. In teacher view this is a typical assessment of atmosphere from the teacher perspective:

Learning atmosphere is good, but may vary significantly among groups. The student's arising professional identity and awareness of his/her future career and positive experiences on how language learning can be part of this, promote good atmosphere. Respectively, major differences in proficiency and motivation and uncertainty of career have a negative impact on the atmosphere. (NA5, D4, language teachers)

As for motivation, some students are attentive in teaching, some are indifferent and to some nothing is OK. Guidance to systematic study and commitment are important. (NA5:D3, teachers)

Teachers often point out that motivation comes from 'authenticity', real life real cases. This is generally agreed with by students, but some students do not share this view. They would like to learn more skills of how to deal with the development of language skills on their own after they graduate. This supports the endeavours of linguists to emphasize learning to learn - focus (van Lier 1996):

In current language teaching they try to raise interest by talking about the needs of language competences in the future. There are not ways to try and keep up motivation after studies; it will depend on personal interest in the subject. Learning atmosphere is generally good. (NA5, D4, students)

Points that promote learning are positive feedback, if there is a reason for it." (NA5:D4, students)

Positive impact: right level, personal concern, field-specific issues. (NA5, D4, students)

What motivates is the speaking. That we would have a similar gang [= homogeneous group, writer's comment]) there. Discussion. Practical situations. The vocabulary will come at work. (NA5:D3, teachers)

The teacher creates the atmosphere. (NA5, D4, language teachers)

The teachers' significance it central (A ja O). A student must not be corrected for pronunciation in the middle of a story. (NA5, D3, students)

Some students feel that there are faint possibilities to influence course contents in the first two years - not that they necessarily know how that would happen. Mature students realize the contradiction of a preset plan and student wishes:

We thought this worked pretty well in the 3rd year. We understand that students of the first two years do not know yet what to want/need. Having a choice adds student motivation. We were not able to influence how the teaching was implemented. This may be that teachers think that the framework is the optimum. On the other hand it might be good for the teaching and the teacher to change this framework. The system does not work that students have a choice in the contents but not in the way the contents are implemented. (NA5, D4, students)

In students' view significant points that promote and motivate learning and increase engagement are:

- narrow angle focus by specialization, authentic activities and motivating content
- professional teacher
- learner involvement, empowerment and inclusion
- positive feedback to all, not just good students
- oral practice
- good atmosphere
- group spirit
- group discipline.

These factors arising from the learner perspective allow learners to feel motivated about their learning based on NA5.

6.3.4 Learner Contribution to LCPP

LCPP appears much the same from the learner angle as it does from the teacher angle, but emphases are often different. Learners agree with teachers on many points of good practice LCPP, bringing forth their major concerns in the process. It seems that students place more weight than organizers and teachers on the principles of agency and autonomy, empowerment and teacher professionalism. But as expressed by a teacher informant, evaluation as a development cycle that is 'continuous, transparent and uninterrupted' is effective if it can be maintained on a regular basis and does not aim to gain 'the same result' (Lincoln & Cuba 1989:50-57).

The learner is the most neglected stakeholder of the four stakeholders in the needs analyses of this study as in ESP teaching in the public sector. I came to this realization as I tried to find learner responses parallel to teacher questions and found none for some points. The learner is an informant only in NA5 (Prolang), NA5 (COP-Stadia evaluation) and NA6 (course feedback); in others learners' views are requested from course organizers, or language teachers. This is a clear development challenge for the future. This is why the LCPP program theory formulated from the learner angle in section 7 relies on a much smaller amount of data than the three other perspectives.

6.4 Summary of the Eight Principles of LCPP

On reconsidering the titling of the eight principles, it seems quite clear that some of them are closely related with each other, such as teacher professionalism and empowerment: positive attitude can be part of professionalism as well as of empowering classroom behavior. Despite these overlaps the titling of the categories can remain as presented for the time being. Still, some adjacent options for categorizing the discovered items have been suugested in the column 2 in table 19. The table below seeks to summarize how the concepts of principles have been conceptualized in existing research and to what extent there is certainly space for reconsideration and refinement of the principles.

Table 19. The LCPP principles conceptualized and exemplified.

Principle	Concepts in the vicinity	Anchored in the conceptualization of	Organizer perspective	Teacher perspective	Learner perspective
Scoping	objective, goal, focus, profession-specific, technical versus general business, industry-oriented, focus on specialization, needs analysis	narrow angle focus (Hyland 2002, Huckin 2003); specifying the object of learning (Van Hest & Oud-de Glas 1991), goal-directedness (Robinson 1991:2), purpose (Huhta 1997:131)	'Clear objectives', specific skill, 'business negotiations', 'preparing for presentations'. 'must have a clearer goal'	student will cope well in everyday situations in the future profession; masters the terminology in the field and professional communication situations; can express herself clearly and understandably; is aware of cultural differences	'more 'more technical vocabulary; interesting subject matter motivates'
Grouping	target audience, participation, participant profile, group size	Planning groups in collaboration (Robinson 1991:3, Huhta 1997: 47, 23). A common denominator needed (Huhta 1997), group dynamics (Losada 1999)	Task-specific, position-specific, profession-specific, department-specific, language level: homogeneous. Group size less than 12. Negative: open to all, 'those interested'	Homogeneous by language level. Group size: 20-30	Homogeneous groups as to language level and specialization. Group size: 20-30. 'must be separate groups for different specializations'
Realistic extent and course format	CEFR banding scales, levels A1, A2, B1, B2, C1, C2; learner aptitude and motivation	realistic learning times (Huhta 2002: 12), narrow angle focus can cut down learning times (Huhta 2002: 10-11)	Varieties exist: intensives, semi-intensives, weekly teaching, multimedia, support systems, monitoring		'It is expected that weaker students become equally proficient during the same course.'

Professionalism	competence profile; degree and teaching skills, company work experience, group and interpersonal communica-tion skills; professional attitude: treating students in attentive, supportive and encouraging manner; updating of knowledge; humble stance to learning	professional expertise: *mastery of a body of knowledge, mastery of skills* and professional ethics (Boswood 1999:4-6), reflection *in* action and reflection *on* action (Schön 1983, 1987); front stage and back stage communication (Sarangi & Roberts 1999:21-24) to be kept apart; withholding expressions of surprise in response to client talk (Drew &Heritage 1992);	a specialist, who is knowledgeable, systematic and demanding; professional adult educator, skilled in languages; a competent person who knows the culture of the country and cultural communication; The pedagogical element is important; must activate everyone	'learning needs to be negotiated with the learner', 'frank and open dialogue', 'opportunities to influence both inside and outside are good'	'teacher should know more about the professional field' 'supportive and requires enough' 'an attentive listener' 'teacher should not complain about missing resources to students' 'should take criticism well'
Empowerment	encouragement, atmosphere; engagement, motivation, personal qualities such as vision, passion, conscience and discipline ; learner involvement, internal motivation, commitment	personal and social process liberating one's own strengths, competence, creativity and thus freedom of action (Robinson 1991:14) social virtues of caring, help, support; respect for others, strength, honesty and integrity (Argyris 2002:217);leadership qualities such as modeling, path finding, aligning and empowering (Covey 2004)	'a positive attitude and the participants matched mentally',' learners planned together with trainer' 'great participant feedback', 'the course encouraged us to learn more' unsuccessful course: 'no commitment'	'encourage and guide the learner' 'the student has courage to express personal views and confidence in making presentations', 'we have directly been able to influence its content', 'emphasis on oral communication'	'Positive impact: right level, personal concern, field-specific issues.' 'What motivates in speaking; similar gang: discussion; practical situations' 'Teacher's significance is central' 'Feedback to all, not just good students'

Authenticity	relevance, content selection, curriculum design, core contents, activity planning, task design, real life simulations	ecological validity - samples of events and activities within institutional and organizational settings (Cicourel 2007: 735) creating authentic opportunities of language use (van Lier 1996:126), meaningful learning activities (Widdowson 1990:46-7), validation and authentication (Widdowson 1990), engagement in the learning situation, communication between the teacher and the learner (van Lier 1996:125);	- teacher must have interest in in the field and the company	relevant communication situations, 'prepare for the working life', case simulations, 'we teach the Prolang situations', 'we need more modernized material', 'more time to process authentic material', 'My task is to coach students to succeed in their future profession at work.'	'Yes, language teaching meets the competences needed at the workplace'. 'I do not know what there is in the workplace.' Materials should be current. 'Assignments are pretty practical, although they feel like forcefully put together.'
Agency and autonomy	independence, self determination, authorization, self learning, self directedness, awareness, self efficacy	"The growing *interdependence* in human functioning in placing a premium on the exercise of *collective agency* through *shared beliefs* in the power to produce effects by *collective action."* (Bandura 2000:75); also autonomy as "capacity of detachment, critical reflection, decision-making and independent action" (Little 1991:4). Intrinsic motivation, self determination (van Lier 1996:121)	'learners planned together with trainer' 'good collaboration'	'An enthusiastic and motivated student learns fast.'	'Students have not been allowed to influence the contents.' 'More freedom to influence in the studies.' 'Usually progressed in a teacher-centered manner, [student] wishes to be taken into account'

Authorization and anchoring	Legitimacy and position of language education; Organization; Opportunities to influence strategy, resources and implementation.	Legislation regulates some requirements; science universities: language centers, UASs: diverse arrangements. The linking of language education to strategy processes is an issue. Opportunities of anchorage: international exchange and collaboration, research, publication, field projects.	Management: 'Languages are set at minimum requirement. Language teaching is not taker number one.'	'participate in international projects' 'language resources are based on old practice'	

On looking at LCPP from the three first stakeholder perspectives in NA 1-7 certain observations can be made. Many aspects of LCPP construct appear similar from organizer, teacher and learner aspects. They all agree that Language and Communication for Professional Purposes training (private) and education (public) needs to be narrowly scoped around specific content. The grouping of LCPP learners is essential around targeted specialization - slightly differently required for company small group training (section 6.1.3) than in higher education field or profession-specific groups. The three stakeholders agree on relying on trainer and teacher professionalism and empowerment of learners in the interaction. Additionally learners require their LCPP as allowing agency and autonomy of their learning. and authentic content and material. For teachers LCPP authenticity has meant exploring communication situations in business and industry in order to identify relevant content and motivating classroom practice.

But why do the principles of grouping and of realistic extent and course format, essential in the language training organizer perspective analysis, only come up rarely in the evaluation discussion logs of teachers? I found this a surprise, since as we look at the student perspective, we find that these two points come up as key concerns in students' critical comments. A plausible reason for these two aspects being ignored may be language teachers' fatigue with discussing and rediscussing resource cuts with their degree programs, and they perhaps preferred not to bring up such a lost cause, especially as the domain experts and program managers were in the room. Also, this aspect was not specifically asked - had it been separately asked, the teacher views in this matter could have come up more clearly. Nevertheless, despite being conspicuous by their absence in the discussion logs, grouping and course extent and format are frequent subjects of teacher discussions that are recognized, discussed in conferences and taken up in annual budget talks.

As for the learner perspective and their strong expressions of wishing to posess an agency of their own learning, we can only conclude that this aspect in the linght of the results is not yet well catered for. Both pre-service, inexperienced and in-service, experienced learners wish to pasrticipate not only in the planning but also in the actual implementation of learning practice.

Concerning the totality of LCPP teacher development, one of the respondents aptly summarized the experiences of language teachers concerning the authorization and anchoring of language education at UASs:

> *The guiding principle of this development [development of language education at UASs, my clarification] should be a development cycle that is continuous, transparent and uninterrupted. Language training quality improvement work has sometimes been spurt-like (*tempoilevaa*) and badly targeted. Teachers should network to assure quality. For example, more detailed NAs should be conducted in a similar manner as Prolang that involves a wide range of teachers; this should be done with separate resourcing. The development work needs to be part of the language teachers' competence development strategy, not a "trend" that looks for some value added. (NA4: D1-2, domain experts and language teachers)*

LCPP teachers are thus seeking a status which does not need to be re-negotiated each term – in a context of global insignificance in a country with fewer than 5 million speakers of a Less Widely Used, Learned and Taught (LWULT) language, in European Union terms. Quality standard LCPP can only be maintained with a strong professional community, promoting both LCPP practice and research. This now wraps up the disscription of the three spakeholder perspectives of olanguage training organizers, teachers and learners, as we approach the filat, fourth stakeholder perspective of national language policy makers.

6.5 The Perspective of National Policy Makers

Section 3 provided an introduction to language policy and language program policy overall in Finland, with milestones listed in Appendix 2. This subsection now reports on the evaluation of needs analysis results, which national language program policy makers may have use of. The four first NAs provide input for national level language policy and language program policy, as shown in table 20.

Table 20. Needs analysis data from the national policy maker perspective.

	Whose perspective	Method of inquiry	Contribution reported for
NA1- NA3	HR language training coordinators	NA1&NA2: surveys NA3: surveys and interviews	- current language need - future language need
NA4 – Prolang	HR language training organizers and employees	Questionnaire survey: evaluation of strengths and weaknesses of a. vocational language education and b. general language education	- current language need - future language need - input for language education - input for language teacher training - language level of target groups
Details of data collection to be found in Section 4.6.1 - 4.6.4.			

Table 20 shows which needs analyses provide data at three points of time for current language need (1990, 1994, 1999) and predictions for future language needs (1994, 1999), thus giving input for how language policy should be geared to. NA4 provides feedback to general education and vocational education (1999). Additionally, NA4 provides data for what the gap between current employee skills and the needed skills are, thus proving information on what needs the educational system fails to meet.

6.5.1 Values Framing the Evaluation of LCPP for National Language Policy Makers

The values of national language policy stand robustly on the foundations of bilingualism as strength for Finland, which is reflected on the developments of national language legislation. The values of the language education policy planning have followed along the principles of bilingualism. European language policy started to influence Finnish language policy since the 1990s, just before and on Finland joining the EU in 1995.

As discussed in section 3.1 the European language policy has had four major aims for language policy: A. a comprehensive and coherent way of describing language and communicative competencies in a way that promotes transparency of language user skills and competencies, B. a consistent emphasis on learner-centred orientation and learner autonomy, C. a strong focus on intercultural communicative competencies and D. pluriculturalism and plurilingualism.

The unification trend of using English as a lingua franca has been seen in EU decision-making procedures since the major flow of the Eastern European countries joining the EU in 2004. This brought an addition of 11 languages to the EU. A record of the developments from the use of four official languages in 1958 to 20 languages in 2004 can be found in Lindstedt 2005. Lindstedt predicts that English looks like a solution without alternatives alike so many other changes caused by globalization (Lindstedt 2005:56). As for business the trend in the light of NAs is similar, though customers prefer to be communicated to in their native language.

As for some positive development of cultural and linguistic diversity, the demographic change has certainly brought more diversity and the linguistic eco-system has changed. But as we observe the language policy and language programme decisions, their impact on diversity of national language resources has been much less than the objectives set. This comes out in NAs 1-4. This coincides with the previous studies in the field (Nikki 1989, Numminen & Piri 1998:19). Thus the most ambitious aims of Finnish language policy have failed to materialise to considerable extent concerning for example the diversification of language skills on the level of national general language planning. (Sajavaara & Takala 2000: 178).

The above mentioned European values may not be recognized along the whole line of language policy decisions, but many aspects have been taken up in Finnish language policy. One example is the CEFR, a common system for language learning, teaching and evaluation (detailed in Section 3.2), of which mainly the banding scales of language assessment have been adopted and applied. This steers the learning towards analytical evaluations of particles of language rather than a holistic apprehension of work life communication situations. This, a partly implicit choice, is based on an ‘industrial’ model of language teaching, where language levels are ‘products’, which teachers can ‘consume’, without a necessity for reflection (Huhta, Jaatinen & Johnson 2006:35-36).

> Needs analyses from many fields of the work organizations show what work life expects from language-skilled individuals. It is therefore time to reflect upon what we mean by language and communication for professional purposes and how we develop learning environments, activities and evaluations that support our conceptions of good learning. It is time for mutual reflection. (Huhta, Jaatinen&Johnson 2006:37)

The commonly developed CEFR offers other choices to reflect upon besides banding scales. These options have been used in NAs 5-7. Overall, it is a language education political decision if the system promotes analytical, written testing of discrete language items or holistic performance of language competence in situations. Matriculation examination in foreign languages, for example, mainly uses analytical testing and oral examination is only optional.

People and their behavior (Cooper's factor III, 1989), however, influence the language policy making. There have always been feelings attached to the question of language policy. The historical impacts of Finland having been under the Swedish rule (1150-1809) and under the Russian rule (1809-1917) and cross-boarder hostilities with the Soviet Union and Russia have their consequences on people's emotions and behavior towards these two languages. Despite several efforts to increase the number of learners of Russian, the language political efforts have been weak, and language output minimal.

As for the Swedish speakers, their strong political, economic and cultural input in the country's development over cannot be overlooked; it is visible, it is considerable, and it is worthy. However, negative attitudes towards the Swedish-speaking population exist and are growing louder. As Saari puts it, some Finnish groups have a deeply rooted negative attitude to Swedish and the Swedish-speaking population. This is still affected by an idea of a higher social status, economic wealth and a special treatment of the group (Saari 2005: 334).

This question of Swedish is a nationally sensitive issue. A vigilant reader of the national press will notice that whenever language policy is brought under public discussion in Finland, it is frequently steered to a question of Swedish, despite the fact that language policy relates to the extensive phenomenon of linguistic ecosystems and their changes over time, policy decisions on language education program from primary to adult education, influences on national language resources and demands of the supply of language-skilled personnel in the work life and plurilingualism overall. A wider perspective is necessary for not losing sight for nationally essential questions such as how to secure the national language resources for future in such as way that a sufficient number of linguistically competent persons will be found for global, European, Nordic, national and local workplace needs in the future. And this relates to business and industry as well as to other walks of life.

6.5.2 Intended Use by Language Policy Makers

The stakeholder view of language program policy making implies that societal agents such as business and industry, who need languages, can demontrate to the policy makers how the demand for language recourses is developing, thus allowing the polcy making system make changes to the language program policy. Needs analyses 1-7, and besides also other existing needs analyses, demonstrate how this kind of logical action is not yet possible, due to evolving survey practice. We now examine to what extent the results of needs analyses are applicable for this purpose.

Table 19 illustrates how three needs analyses have taken efforts to operationalize language needs by asking different questions. We find that operationalization has taken place in different ways, thus making it difficult to draw conclusions about development trends of language needs over time. Further details of NA1, NA2 and

NA4 are in Appendix 3 (summary) and details in 4.6.

Table 21. Problems of comparison due to the changing questions of language needs analyses.

NA	1989 (NA1)		1994 (NA2)			1999 (NA 4)			
	The most important languages n =58 (companies) In %	Most training need n= 52 (companies) In %	The most important languages n = 1860 In %	Most training need n= 1488 In %	Language spoken with target areas n= 1577 In %	Present language need by HR, n = 69 In %	Present language need by employees n = 197 In %	Future needs: increase/ decline in 3 yrs by HR n = 69 In %	Future needs: rise/decline in 3 yrs by employees n = 197 In %
English total	100	96	25,4	28,7	38,3 (18,5) (19,8)	100	97	increase 77 decline 6	increase 73 decline 1
German	67	90	18,4	20,4	16,5	86	42	increase 6 decline 1	increase 28 decline 7
Swedish	52	71	19,6	19,0	20,8	96	71	increase 9 decline 0	increase 33 decline 6
Russian	17	38	12,4	7,1	7,1	52	6	increase 2 decline 0	increase 12 decline 3
French	16	48	12,4	13,7	9,4	60	9	increase 7 decline 0	increase 10 decline 2
Spanish	9	31	7,4	5,2	5,9	23	2	increase 0 decline 0	increase 2 decline 0
Other	-	4	0,7	1,0	2,0	-	-	increase 4 decline 0	increase 0 decline 0

Italian	-	-	4,5	3,0	-	7	0	increase 0 decline 0	increase 0 decline 0
Estonian	-	-	2,3	1,7	-	4	0	increase 1 decline 0	increase 2 decline 0
Chinese	-	-	-	-	-	6	0	increase 0 decline 0	increase 1 decline 0
Japanese	-	-	-	-	-	3	0	increase 1 decline 0	increase 0 decline 0

Table 21 shows how NA1 asked a question of which were the most important languages. The result was insignificant, as any amount of need produced the same positive reply. The only conclusion that could be made was that all companies needed English (100%), almost all German (67%) and about half of companies Swedish (52%). The needs analyst knew that the 100% of English was far more than the 67% of German - the operationalization did not help chart the number of those who needed these languages. It is clear that the results of NA1-3 were not very helpful in predicting what courses to offer, as our reply space only gave the options of yes or no for need. For this reason NA2 asked the same questions on the most important languages, but they had to be placed on a priority scale so that 9^{th} important received a coefficient 1 and the most important coefficient 9. This way the proportionate importance was part of a percentage - this proved to be not much more helpful.

The Prolang study (NA4) asked for the need in a similar form as NA1, but now requesting for priority from 1^{st} priority to the 6^{th}. Additionally, they were asked how many of their staff needed foreign languages at work. The figures were low: English 33%, Swedish 19%, German 7% French 2%, Russian 1% and all the others 2.6%.

An effort was made in NA4, Prolang, to quantify the announced need of languages 1) by asking the HR coordinator to express how many people he/she was in charge of 2) how many % people in their sphere of influence needed English/Swedish and other languages in their work.

The results for 69 training coordinators and personnel managers estimated the following in NA4, the Prolang inquiry 1999, as shown in table 22.

Table 22. Percentage of personnel who need this language based on HR coordinator estimate 1999.

% of personnel who need this language	ENG	SWE	GER	FRE	RUS	EST	SPA	ITA
less than 5% need this language	7%	17%	19%	29%	23%	1%	15%	4%
6-30% of personnel need this language	44%	45%	48%	13%	10%	0%	0%	1%
31-100% of personnel need this language	50%	27%	1%	0%	0%	0%	0%	0%
this % of employees do **not need** this language	1%	11%	32%	58%	67%	99%	84%	95%
%	100	100	100	100	100	100	100	100

Table 22 shows that the proportion of English needed is in a different size class compared with any other language. More than 7 out of 10 employees need English in most companies (1999). There is some need of Swedish in 90% of companies, but the need concerns a limited number of employees, say 1-3 among 10 employees.

All in all, needs analysis questions of table 19 show how the operationalization of language needs have evolved, and thus making it very difficult to compare the quantities of language and communication need at different points of time, which would be useful for policy makers. Each study uses different questions and reports the results in different format. It is not only the case with NAs 1-7 but also of other needs analyses of those reported in sections 2.5.-2.6 conducted in various places. In fact, it is difficult say anything about development trends in the light of these figures: questions have changed, and so have target groups. All that can be concluded from this account is that methodology is has been under development for predicting need for languages and that languages besides English, Swedish, German, French and Spanish have increased in importance since 1989. No comparable quantifications can be made based on these NA results.

As mentioned in section 2.7 many needs analyses ask questions related to frequency of need. This may be a useful measurement for prioritizing training of different persons, but not applicable for a national language resource evaluation. In view of NA1-7 it seems more relevant to inquire about quantities of personnel per language, identification of learning gaps and predictions for the future rather than requesting the amount of contact with language per week/month/year, which is a less helpful question for predicting language competence needs.

Future needs: increasing or declining of language need

From the national language program policy making perspective it was beginning to show in 1999 clearly that the language landscape was changing and international trade arrangements started to require more communication skills. Table 19 shows that both personnel managers and employees agreed upon increases of language skills. They fully agreed on radical increase of English. Employees, more than personnel managers, predicted the rise of Swedish, German, French and French. Instead, personnel managers saw also Japan and other languages coming, which employees did not see. With this kind of information at hand, we cannot conclude anything about (i) where the need is (ii) amongst which learner groups (iii) on what level the need appears and (iv) how urgent the training is. Quantification of language and communication skills is still short of functional operationalizations.

Estimated level of language skills

Estimates of the quantity of language skills have proven useful for quantifying language resources.

In NA1 (1989) there were no banding scales produced by EU authorities. Still, a question of the level of language skills for different groups of personnel was asked in NA1. It was found that 70% of personnel in sales and marketing knew the language needed very well; only 30% of companies reported they needed help. 90% of companies reported that more than half of persons in technical positions needed help. This question was complex and it is possible that not all understood it in the same way. The result, however, confirmed a hunch that the Fintra had based on its training experience: technical people were the group in most need of training 1989.

NA2 in 1994 asked the question of language levels of staff in a quantitative manner; the results are also more informative than NA1, as is shown in table 23.

Table 23. HR coordinators' evaluations of language levels by educational background, NA2.

Educational background	Excellent %	Good %	Fair %	Pass %	Weak %	%
MSc engineers	17	50	23	8	2	100
4-year institute engineers	8	30	38	17	7	100
Technicians	5	14	33	26	22	100
Commercial background	20	46	25	7	2	100
replies given by HR coordinators; n = 62						

Table 23 shows how NA2 confirmed the hunch that existed even before the study: personnel with commercial background are linguistically well functional as well as those with MSc technical background, despite the fact that the estimate was made by personnel managers, which could mean that it is their impression rather than for example individuals' own conception. Technical people with short education face more challenges in languages.

This inaccurate estimate of NA2 was improved for NA4 in the way that several measurements were taken to quantify the need: number of years of language studies, skills at present (0 - no skills to 5 - excellent skills), level of language acquired and language level in five years.

Sufficiency and quality of individual's language skills

National language education policy can also influence learning content by steering measures, if policy makers so decide. NA2 provides evidence of the direction of language education, based on data received from language training organizers.

Based on NA2 the 1993 the language and communication problems reported by HR coordinators in open replies were the following: deficiency in oral situations (23%), presentations (20%), cultural awareness(13%) know too few languages (11%), accuracy problems (10%), professional terminology (10%), understanding texts (8%), speed of reading - 6%), other (10 - 0%).

In NA4 the strengths and weaknesses of language skills were asked from both employees (n=197) and employers (n=69). In this NA employees self-evaluate that they are strong in reading, listening and professional terminology, but weak in Intercultural awareness, oral skills and grammar. Personnel managers agree that the strengths are in reading and listening, but also in written skills rather than professional terminology, which is seen as a weakness. Major weaknesses according to personnel managers are shortage of oral skills, not knowing as many languages as needed and shortcomings in intercultural understanding.

Here we see that both NA2 and NA4 agree on three issues that need to be focused on in education and training: (1) oral skills competence development, (2) intercultural awareness development and (3) expanding the language repertoire of employees. Needs analyses have also provided clear feedback to language program policy making concerning the quality of language education, as reported below. Considering language program policy making language skills show lacks that national language program policy could influence with redirective measures with appropriate policy.

Overall quality of general language education (NA4)

In NA4 employees were also asked about the strengths and weaknesses of general language education requested in open-ended replies. Both employees and personnel managers agree that general education is strong at providing overall language skills and grammar. They both agree by far the major problem is (1) shortage of oral skills learning. Reading and writing were neither seen as strength or weakness, thus the result is insignificant. Personnel managers also saw (2) irrelevance to work as a weakness (Huhta 1999: 82-83). We may question whether it is possible to introduce very work-relevant content in secondary school education before learners know what they will be studying: this is doubtful. But the input may raise a broader question of language education versus language training (targeted aim). Should perhaps some secondary school courses not at all aim for general overall language skills, but rather practical utilitarian oral skills courses for targeted purposes.

Overall quality of vocational language education (NA4)

As for feedback to the vocational language education employees themselves give credit to professional terminology learning and preparation for the work environment as strengths. Their major complaint is the (1) limited share of languages in vocational education and minor (2) input in oral skills. Personnel managers agree with professional terminology, but do not see vocational education as preparing for work, rather providing overall basic skills. As for weaknesses personnel managers agree with employees.

The above findings concerning languages, their priorities, current and future needs provide some field-anchored messages to the national language programme policy making that we will examine next.

6.5.3 Language Policy Makers as Intended Users

Language policy making authorities are in the hands of Parliament, Government, Ministries of Justice (for language policy) and Ministry of Education (for language education policy). Several other institutions are involved according to the regulations guidelined by the national decision-makers. As for general and vocational education, many directive actions are authorized to National Board of Education, although local decision-making takes places in municipalities. For languages regulation in higher education language policy making is under Ministry of Education, implemented in the autonomous institutions of higher education.

As clarified above the national language policy making in Finland occurs in various locations and levels, and is therefore very widely scattered. Responsibility is scattered amongst authorities in various locations (Sajavaara, Luukka & Pöyhönen 2007), and is dependent on national, municipal, education level, institutional regulations, and resource decisions of different parties. This scattered nature of language program policy making is problematic from the point of view of the long-term character of language program policy (Takala 2006, 2008). Moreover, international language collaboration and EU recommendations guide some of the decision-making in language program policy, such as adherence to CEFR banding scales and their descriptors.

Positive developments in language education policy have taken place during the 30 year era (Takala 1998, Sajavaara, Pöyhönen & Luukka 2007: 27), but the overall development in language program policy is now narrowing down language selections, as we have seen in Section 6.4., and will have long-term impacts on the national language resource. National language resource may have widened to a certain extent - but not of successful language policy making. Language resource has grown as a result of a result of immigration (Sajavaara, Luukka& Pöyhönen 2007:27). Swedish skills have deteriorated; German, French, and Russian are studied to a very small extent. A significant observation is that attitudes to representatives of other countries and willingness to collaborate are dependent on whether there is a common language (Sajavaara, Luukka & Pöyhönen 2007).

The national language policy review (KIEPO 2007) proposes many measures for different sectors of language education, including language policy making. There are two main proposals that could have an impact on language policy making. The first proposal concerns the nomination of a language education specialist in the Ministry of Education with a responsibility to coordinate language program policy, and participate in EU, Council of Europe and Nordic Council of Ministers. The second proposal to support a holistic development of national language policy making concerns the establishment of a unit in one of the universities to be in charge of language policy research and postgraduate studies. This arrangement would support national language policy coordination, and international research collaboration in the field. (Luukka & Pöyhönen 2007: 479) No measures to the end have yet been made by government; thus language policy making authorities remain scattered, and coordination and decision-making needs to be sought separately for each language program policy incentive.

National education policy making and LCPP are interrelated in many ways. Learners with their language repertoire and skills levels are mainly the products of national language policy making, though informal learning paths are diversifying the repertoire more than ever before. Thus, national language policy provides the language resource that institutions providing LCPP can work with. The decisions of language policy making are slow and long lasting and often produce unpredictable, and often undesirable, side effects. Some measures have been taken by legislators to extend the language repertoire of Finns, with few results, as the major question of free choice of the two main languages has not been tackled. Business and industry, and their language requirements and needs, have received little attention in language policy making, if any. These are the reasons why a stakeholder view of LCPP cannot overlook the impacts of national language policy.

For national policy makers to be able to conduct a valid analysis of societal needs for languages, language needs analyses must be used for quantifying and qualifying the developments of language need in a longitudinal perspective. As the Kiepo 2007 language policy review states:

> *If the objective of the Finnish language program policy is to have language education respond to the needs of society and individuals, and is implemented on economical and equal basis, language education must be examined as a holistic unit. (Sajavaara, Luukka &Pöyhönen 2007:36)*

In fact, the language program committee in the 1970s seems to have been somewhat more convinced about social and societal needs than the more recent project of Kiepo 2007, citing 'the national need' rather than 'societal and individual needs' as in Kiepo.

> *The primary role of national language education is to produce the language skills corresponding to the national need effectively and purposefully. (Language program committee 1978:147)*

The stakeholder apprehension of language and communication as a societal and social phenomenon provides input for national language program policy planning. But as Takala has pointed out, public rhetoric and the actual sequence of events do not match in language policy (Takala 2008). Through needs analyses, prominent global companies have been sending messages to national language policy making.

The change input from the in-service employee and the corporate community perspective in NA4 to the national language program policy is clear:

- diversify the language program is general education (to produce more variety of language combinations)
- focus on oral skills development in both general and vocational education
- add an intercultural skills component into the language programme, and
- add more of language studies in vocational schools (not necessarily variety, but more of the current languages) (Huhta 1999: 153-162)

NA4 also provides a more detailed analysis of what is perceived as elements of difficulty in communication (Huhta 1999:106-117). In short, most demanding situations relate to oral communication: meetings, negotiations; client contacts; presentations. The factors that cause difficulty relate most frequently to language deficiency, but often to other than linguistic complicating factors: complexity of the situation, speaker's own lack of expertise, demanding attitudes by the counterpart. It is worth noting that the difficult situations concern group communication rather than one-to-one communication. Thus, the language resource in the 69 companies of 1999 was found insufficient by employees themselves in both main languages of English and Swedish by the self evaluations of 197 employees. Something remains to be done by national language policy in this respect.

In a broader perspective, Finnish language education policy dates back to the 1970s, and its cornerstones remain unchanged despite minor amendments. However, major changes have taken place in the language eco-system with increasing diversity of languages, as Table 4 shows, from 25,000 speakers of foreign languages in Finland in 1990 to 183,000 in 2007. Recent policy statements show that the trend is not showing signs of slowing, quite the opposite. The most ambitious language education political goals of diversification have not been attained at the level of general national language planning (Takala & Sajavaara 2000:178).

Secondly, the Finnish language education program, despite efforts to influence parent choices, produces a relatively uniform language resource base, which does not meet workplace expectations of plurilingualism: almost everyone studies English and Swedish, but too few pupils study and learn other languages.

Thirdly, an abundance of language needs analyses at workplaces and in professional fields and communities has been conducted, reported and published, but the results are not considered in language policy formulation or revision. Despite major efforts invested in the learning of Swedish, the learning outcomes are modest, and public authorities cannot always serve the public satisfactorily in both national languages, Swedish and Finnish; thus supply and demand do not meet. Fourthly, workplace language training prefers not to invest in the language training of those who have no background in a language: more learners of LWULT languages should be provided by the educational system to secure a growth base for national language resources.

A recent report by the Confederation of Finnish Industries reports that language skills are emphasized as a recruitment criterion as follows: English 82%, Swedish 63% German 39%, Russian 38%, French 20% Spanish 11%, Italian 7%, Chinese 6%, other languages 3% (including Estonian, Polish, Portuguese, Lithuanian, Latvian, Norwegian, Japanese and Danish) (EK 2005:29). The quantitative language needs behind these percentages are very vague: How many people? With what skill levels? In which part of country? The Confederation of Finnish Industries does not provide such details, but such information is needed if future language program policy is to be based on hard evidence rather than hunches.

Considering current demands and constant changes in the environment, Finland's national language program policy faces social, societal, demographic, economic and global challenges that need to be considered in reformulating and revising language education policies to adjust them to the needs of the changing world.

This selective and brief look at the Finnish language program shows that the language program policy is determined by many factors, but the social, societal and environmental needs of business and industry have not been evaluated or assessed to contribute as an influencing factor in the prevailing models of language education policy.

7 DISCUSSION AND CONCLUSIONS

This study has taken look at industry and business language needs from a social stakeholder perspective, taking a multidisciplinary approach to the treatment of LCPP, and also seeking to identify key elements of LCPP utilization in business communities. The seven needs analyses evaluated in this study provide evidence of language and communication utilization in companies from many angles.

LCPP appears as social action in communication situations as identified in NA4. To understand the communication in these situations communicators need to know the discourse practices of the institution, organization and field (as identified in NA6 and NA7). Persons communicating in the setting are familiar with the communication practice of their own profession, but also the practices that are applied in interdiscursive practice with other professional communities. For this reason some needs analyses (NA6, NA7) provide detailed accounts of social action descriptions of frequent and demanding communication situations.

A professional employee interprets the community discourse based on his/her ability to communicate as a professional and to a professional standard including mastery of body of knowledge, mastery of skills, and the responsible use of these skills (Boswood 1999:4-6). In using a second language, the professional relies on his/her own knowledge and skills of language and communication in L2, which may limit the communication repertoire. This is why needs analyses include records of typical communication event contents (NA4, NA6-7) to be learned in education, whether formal or informal.

7.1 Yield of Needs Analysis Methods to Stakeholders

Now that the data results of needs analyses used has been presented in Section 5, this subsection summarizes the response to the first research question of how language needs analysis methods have been used to examine language and communication needs in technology-oriented business and industry.

The topic of needs analysis methods has been addressed in this study by providing an analysis of existing studies in Finland (Section 2.5) and generally in Europe (Section 2.6), by evaluating the methods appearing in the seven needs analyses (Section 5) and by drawing conclusions on the applicability of needs analyses for different stakeholder purposes (Section 5.10).

This study has identified 20 different needs analysis methods, of which eight were applied in the seven empirical needs analyses of this study over the years 1989-2007, and a few types suggested as needs analysis methods: case studies, language education audits, discussion logs and portfolios, professional frameworks of reference and professional profiles. Our evaluation research in this study showed that the term ‘method’ in needs analysis discussion is a somewhat vague term that may refer to different stages of the research process, such as data collection, analysis or outcome of a study, and thus may an require additional discussion and redefinition of the classification. This study suggests that some methods such as 'non-expert intuitions' and 'expert practitioner intuitions' (Long 2005: 31) should perhaps be excluded from the method classification as they do not relate to any part of the research process, but rather to the informant of a method. The evaluation also showed that the trend during 1989-2008 has been from the use of single methods to more multiple method usage. It was further discovered that in the empirical needs analyses the content of identifying 'needs' has shifted from subjective needs to objective needs and to understanding the target communication better than before. As shown in section 5, it was found that the four key stakeholders groups benefit differently from different needs analysis methods, as summarized below.

The most useful methods of needs analysis for language training organizers, as seen in NA1-4, seem to be small scale qualitative surveys (M5) or interviews (M3-M4) that focus on the identification of subjective needs (Section 2.4), as language training companies were able to apply the results of NA1-3 in the design and targeting of their service offering. Qualitative surveys and interviews provide sufficient information for course design for company participants. For language training organizers at companies and private language schools, the study of objective language needs is less of an issue than for pre-service learners, who already have the knowledge of what is communicated in business. The case is different for pre-service undergraduate learners, who have an acute need of knowing what happens in real company conditions – both in contents and communication.

The main concerns of LCPP language teachers involve keeping up to date about field-specific content and material. Survey results seldom provide profound enough knowledge for the purposes of object of language need, as was experienced after NA5, the Prolang survey, where the results were listings of communication situations at best. The best informants for language teachers are domain experts (M2), and the methodology of professional profiles or frameworks of reference (M19) provides a useful tool for packaging the data in a format that can be used for curriculum design and classroom practice. As we have seen in NAs 6 and 7, the creation of a professional profile requires the evidence-searching phase of documentary analysis, interviews (M3-M4), non-participant observation (M9) or other methods suggested by Long (2005). A good method for teachers for monitoring whether LCPP practice is progressing as intended is that of a language audit or evaluation (M6), including the use of discussion logs and portfolios (M10). As we have seen in Sections 6.2 and 6.3, intentions of good needs-based teaching do not always work out well for students. Therefore the language audit method used on a regular basis is a useful tool for identifying whether good practice has been developed into sustained, consistent practice.

The interest of national policy makers is to shape a language policy that is defendable, supported by a language education policy that meets the requirements set for the nation's national language resource, reflecting on the linguistic eco-system of the country, as discussed in 3.4.2. Besides historical and cultural considerations, language policy makers also need longitudinal and current statistics on demographic changes and on changes in the social environment for language use. This involves recognition of employment-providing industry and business as stakeholders of education policy, unlike in current language education policy (Piri 2001:28; Takala 1979). Therefore, this study suggests the involvement of societal stakeholders in language program policy making, including regular quantitative needs analysis surveys. This recognition must involve not only invitations to participate in random preparatory meetings but also consistent needs analysis practice conducted in a range of significant fields, at regular intervals. These needs analyses must decide on a repertoire of metrics for monitoring the national language resource in such a way that the data are compatible between measurement points, which is not the case at present (compare metrics for example between Oud-de Glas 1991; Mehtäläinen 1987a, 1987b, 1989; Huhta 1997, 1999; Koskinen 1994).

The methods best suited for language program policy design are quantitative surveys with examples of both employees and HR departments that represent the main fields of operations in industrial business and commerce. These surveys should include Present Situation Analysis (PSA) and Target Situation Analysis (TSA) and various means of quantifying the language resource. The present study reviews a variety of options from which national policy makers and experts could select a procedure that would result in a regular follow-up measurement of language needs in vital fields of national economy such as business and industry.

Learners benefit best if their language level is well understood, and a language program is suited to serve that end using the principles of good practice LCPP education, as detailed in Section 6.3. Therefore small scale qualitative surveys (M5) or interviews (M3-M4) that focus on the identification of subjective needs provide sufficient information for course design. On the other hand, pre-service students need hands-on knowledge of authentic workplace communication, i.e. objective language needs, which in-service learners in the public sector do not need. To this end it is useful to use field-specific needs analyses such as professional profiles or frameworks of reference (M19) for curriculum design and classroom practice. Also, as we have seen in Section 6.3, students benefit from evaluations of language teaching (M6) that help make their voice heard.

It can be concluded, overall, that the expertise of the needs analysts developed from usage of single needs analysis methods to well documented evidence-based needs analysis methods, and multiple methods, thus providing more views, and thus also better reliability and validity of findings. The methods seem to have been selected thoughtfully: surveys were used for overall diagnosis of current and future language needs, and more qualitative methods (interviews, discussions) for examining the object of language needs. What remains a problem is that metrics change from one needs analysis to another, so that comparison of the results of different NAs is only partially possible. Sampling of data could be more carefully considered.

7.2. Need Analysis Contribution to the Construct of Language and Communication for Professional Purposes

The second research question seeks to identify the emergent construct of LCPP as it appears in the results of the conducted needs analyses through evaluation. This discussion also includes the answer to the third research question of how the results of needs analyses have been taken into account in national education policy planning.

As we address the second and third research questions, we are establishing a theoretical construct for LCPP, to be discussed and evaluated by the research communities of applied linguists, communication theorists and, above all, technical and business communication practitioners and the communities of LCPP, ESP and VOLL teachers.

The following discussion first locates the context of LCPP within ESP and its similar and differentiating features, based on the evidence of NA1-7. The contributions of the needs analysis data is then constructed to an initial theory of LCPP, which includes the input of the four stakeholder groups, including a fifth environmental factor, the European language policy, discussed in the theory section. This visualization of the theoretical construct of LCPP pulls together the findings of the seven needs analyses.

In the light of evaluation theory this kind of theory for abstract audiences is not enough. In reference to the method section 4.1., evaluation research must progress from abstract potential audiences to real and specific primary users and prescriptions to concrete, specific uses (Patton 1997:21). To facilitate utilization of the LCPP program for each stakeholder group the practical LCPP program theory is expressed separately for each users (stakeholder) group, in line with evaluation research.

7.2.1. LCPP within the Context of ESP

The traditions of ESP and LSP are strongly tied to the history of English taught at universities for the purpose of being able to study in English. In this tradition, as we have seen (Section 2.1), English is taught more for the purposes of academic study than for the purposes of workplaces in industry, business and organizations of specialized fields. In Finland, as in many other European countries, not even ESP and LSP practice have become an academic discipline with a chair and a research community, let alone LCPP, which is building on the traditions of ESP academic discourse and the practice of L2 for upper intermediate levels. A distinction between academic orientation and professional orientation (LCPP) was suggested in section 3.1 to differentiate between communication for professional purposes anchored in evidence-based needs analyses at the workplace on the one hand and the linguistically focused language study of ESP on the other, as suggested in Figure 5. In reference to figure 5 (Orientations of languages and communication for professional purposes) LCPP is placed as a branch of ESP, with amongst two other branches, that of academic orientation and vocational orientation. This classification of three directions – academic, professional and vocational – recognizes workplace communication as a macro level phenomenon with a plethora of discourse communities to be examined. The placement of professional orientation as an individual development area emphasizes the necessity of evidence-based needs analyses of workplaces and their communication, not to be left to in-company consultants alone to develop. The classification also emphasizes LCPP as the language used in industry and business as real time dynamic discourse by various professionals, the rhetoric of which can be learned, and taught, if educationalists know enough of its character. In this discursive practice, disciplinary limits are no borderlines; neither are genres, or divisions to reception and production of language. Instead, the communications are created by the daily interactions of multiple codings (Candlin & Plum 1999), conflicting identities (Sarangi & Roberts 1999), blending of discourses (Candlin 2005), and genres within and across domains, worlds of private intentions and applications (Bhatia 2004). This results in plentiful questions of interdiscursive practice and intertextual variations of different genres. In fact, this study brings up more questions than answers. Many of the elements of teaching practice in ESP are the same, though the emphasis of LCPP differs from that of ESP. This comparison highlights how LCPP aims to approach language from a broader, social, holistic angle, and simulate the complexities of professional communication, rather than analyzes language into elements, and teaches the elements in simplified isolation, e.g. individual genres or functions. The following table summarizes the statements made about ESP at the beginning of this study, adding some corresponding observations of LCPP to compare with. Some more detailed comparison may be in place, based on the differentiating features of LCPP, discovered through the analyzed needs analyses. Many features coincide, but in some the focus differs, as is shown in table 24.

Table 24. Features of LCPP (Language and Communication for Professional Purposes) and ESP (English for Specific Purposes) teaching.

Some typical features of	**Language and Communication for Professional Purposes (LCPP)**	**English for Specific Purposes (ESP)**
Overall	- based on evidence-based needs analyses of fields/ professions/ communities (Vogt & Johnson forthcoming) - focus on communication events in the professional field (NA4-7) - essential elements: discourse of communication events; holistic communication and interaction; less focus on lexis, syntax, grammar (NA4-7) (from micro to macro levels of language) - mainly narrow focus scoping in content (NA 4-7)	- centered on the language appropriate: in syntax, lexis, discourse, semantics etc. (Strevens 1988, Widdowson 1983) - related in content i.e. themes and topics to disciplines (Strevens 1988) - 'delicacy of context' distinguishes from General English (Richards 1989) - wide angle approach (Hutcheson&Waters 1980), also narrow angle approach (Hyland 2002, Huckin 2003)
Curriculum design	Based on - evidence-based needs analyses (such as professional profiles) about the object of language and communication needs of the professions/occupations in the discourse community of the field (NA6-7) with high ecological validity - knowledge of professional communication of relevant discourse communities (social action perspective) - focus on learner involvement, agency and autonomy - learner grouping based on specialization - contents negotiated in collaboration with domain experts	- goal-directed (Robinson 1991:2) - learner needs in the discipline/ occupation/ activity (Strevens 1988) - designed to meet the needs of the language learner needs (Dudley-Evans & St. John 2004, Robinson 1991, Strevens 1988) - at many universities ESP focused on gaining language skills for study (lectures, essays, research papers, presentations) - content selection based on available ESP book series and teacher selection
Teaching approach	- taught by LCPP teacher who frequently also knows the learner's L1 - task-based, action-based or integrated (contents/language/communication) approach together or in consultation with professional domain experts - the four skills not separated, but integrated: language and communication of professional discourse; - simulations of authentic workplace situations	- taught by an ESP English-in-English language teacher - a variety of methods; no specified teaching method, - language, skills, discourse and genres of the discipline (Dudley-Evans &St. Johns 2004) - task-based or communicative teaching approach; pair work - simplified versions of texts; recordings used, practice of isolated functions, gradual approximation (Wid-

	- intercultural awareness development (NA4-7) - group communication (NA 4-7)	dowson 1990) - the four skills in focus (CEFR) - content-based approach the most relevant one for university courses (Johns 1997)
Language level	- beyond level B1	- teaching variety of levels, mainly above A2
Role of L1	L1 used for vocabulary building to gain precise knowledge of 'signified items' for professional terminology	L1 scarcely used. Instead - priming glossaries (emerge - appear) or - prompting glossaries ('remainder' - 'the rest of the water, the water that does not evaporate'.
Activity types and material	- authenticity of material and activities essential (NA1-7) - samples of authentic workplace events: meetings, trade fairs, telephone calls, process dialogues - written texts from beginning to end: reports, proposals, plans, theses - up-to-date authentic material for the purpose	- simplified versions and accounts of texts - authentic texts also used; exercises related to linguistic and phrasal items - comprehension questions (wh-, polar, T/F, multiple choice) - rephrasing practice - slot-filling: completion, transformation, conversion - extensions to larger units (Widdowson 1983: 95-135)

Table 24 compares the key statements of the ESP and LCPP approaches, drawing attention to similarities and differencies. Both approaches focus on the learner needs and language needs of specialized groups. Both aim at skilled competencies in foreign language performance. ESP is focused on English, and there is actually much less research and practice available on LSP concerning languages other than English, though ESP claims to work for any other language as well as English (Strevens 1988:1). This English-in-English approach is understandable for multiethnic groups with heterogeneous initial levels, when the English teacher uses no other language besides his/her native language in teaching. For LCPP, the native language is used as an aid for accurate communication, and has been applied to other languages such as Swedish and German in the Finnish context.

LCPP has been taught at companies, in private business training, at universities and at colleges for a long time, under different names: LSP, ESP, vocational language teaching, workplace English, etc. LCPP, was, however, first introduced as a construct in 2005 when the origin of the CEF Professional profiles was written for the first time (Huhta 2005). LCPP is not restricted to English: in needs analysis 6 the professional frameworks of reference were used for English, Swedish and German. LCPP is particularly applicable to learner levels of intermediate or above, whereas ESP language teaching is provided on lower levels as well. In reference to curriculum design, both approaches need to follow the constraints set by the university, institution or organization: the syllabus or previous needs analyses in the private sector. In implementation, the LSP approach relies on the publishers' fairly general books on English for Business, or Engineering, or some other field, and the focus is on language – texts, structures, functions, dialogue practice – simplified for learning purposes. The difficult learning targets – variety of structures, challenging terminology and creative, dynamic interaction and interdiscursive practice, all to be taken in at once – remain untested in many ESP contexts (with the exception of creative teachers who do not care for book tasks). The LCPP approach relies on similar international book series, but often also on national materials which may use L1 as the instruction language and L2 as the target language. The LCPP approach complements standard material with authentic (or near authentic) simulations that are task-based or genre-based, meaning that language functions and structures appear as they normally do in workplace communication. Even then, interdiscursive practice is not covered. In LCPP, the instructor can function as a 'hands-on guide' as s/he constructs and monitors the evaluation procedures of learners, who focus on autonomous learning.

As the teaching approach in ESP is language-focused, more attention is given to practicing linguistic and functional tasks. With the LCPP approach, the same functions and structures are learned, but within the context of authentic work situations: trade fair simulations, process descriptions or presentations, which are picked up directly from the current workplace, websites or the past summer's internship documents. LCPP suggests that, necessary as the study of the components on the lower levels is, further value can be gained by looking at the upper levels of discourse study: ranges of genres in workplace communities, their social contexts, and behavioral patterns in professional environments involving interdiscursive practice. Therefore the construct of LCPP may be useful for balancing the current emphases of ESP.

7.2.2 Contribution to LCPP Theory Overall

Based on the analysis of the content of LCPP in the light of NA1-7 we can suggest an initial theory for LCPP, built on the foundations of applied linguistics and drawing on heavily from social theories.

The four examined perspectives must be conditioned by a fifth perspective that involves the influences of European language policies. Figure 13 presents an overview of the main findings from the perspective of each stakeholder group:

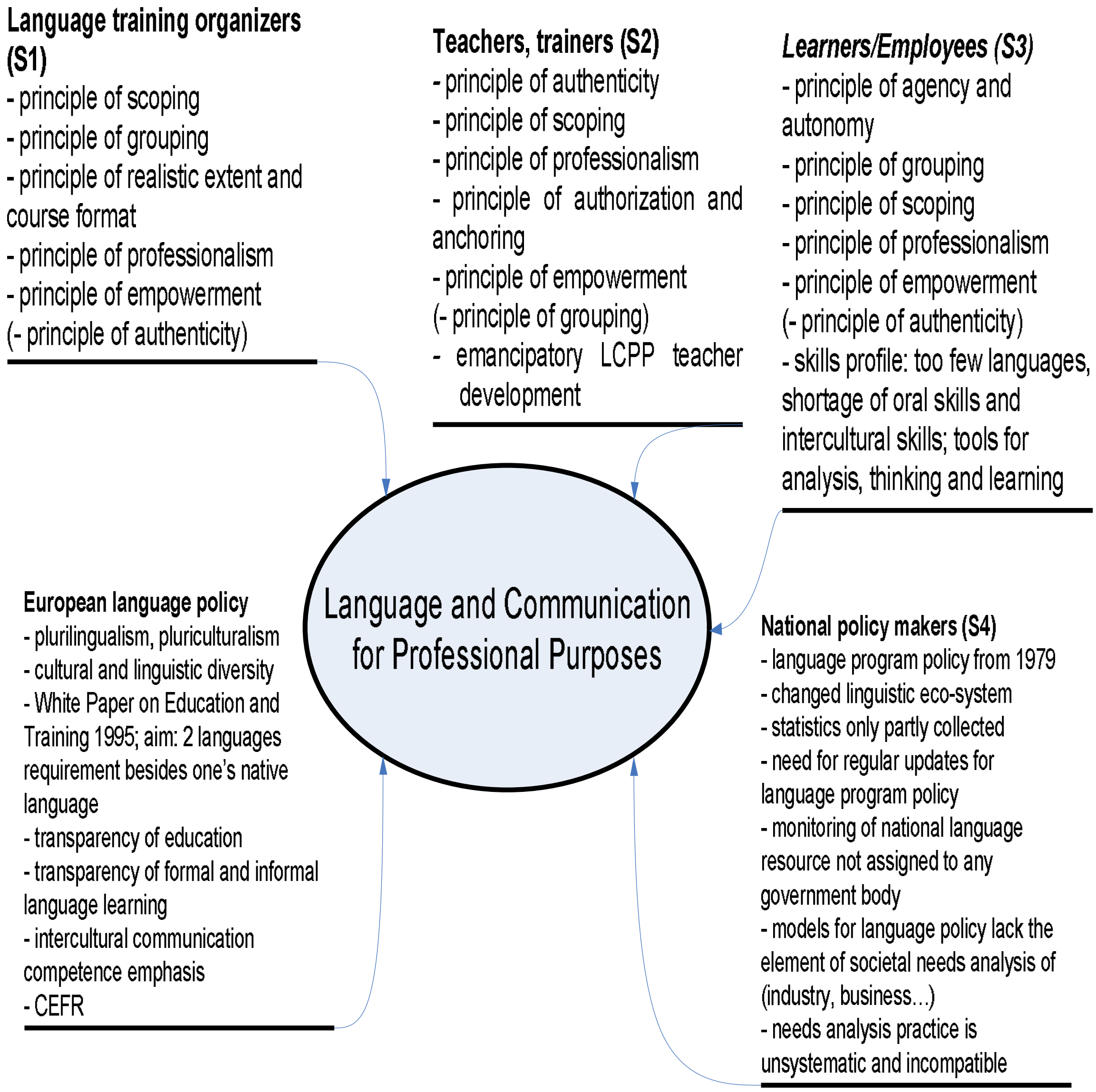


Figure 13. Language and Communication for Professional Purposes from Stake-holder Perspective.

Figure 13 illustrates the construct of LCPP, including the special characteristics put forward as evidence by the stakeholders in NA1-7. LCPP is conditioned by its context of national language program policy and European language policies having a major impact on the development of language resource building, on which business and industry language demand can be met. The space of teaching and learning both formally and informally can at best prepare personnel to cope professionally in the LCPP environment.

The contents of LCPP needs to be based on narrow angle scoping (Hyland 2002, Huckin 2003) rather than wide angle scoping, teaching underlying language competencies (Hutcheson & Waters 1980). Scoping a language program to the right focus is relevant from all points of view. This is commented on by learners, who closely connect scoping with authenticity and linking the subject matter to the studied specialization. Narrow scoping is clearly desired by learners, teachers and organizers alike: learners because they feel they receive value added for their profession and are motivated to study their field and organizers because they know these kinds of courses receive feedback as successful course. It is vital for teachers who recognize subject domains content as a source of learner motivation.

Secondly, the evidence shows that successful grouping of learners is essential. For private sector small groups (less than 12) the principles of grouping can vary; for public sector large groups, learners and teachers expect grouping by specialization. The grouping issue may also be significant for teachers, but very few comments related to this issue appear in the teacher discussion logs; teachers may have accepted economic cuts as a fact of life and feel powerless. Or perhaps the situation in 2001, the time of evaluation, was acceptable from the teachers' point of view at that time. For students, it was not.

Trainer and teacher professionalism is emphasized by all stakeholders, knowledgeability in the specialization, pedagogical skills, personal interest in the specialization, inclination to renewal and search for current knowledge. Learners also comment on the professional's ability to differentiate between front stage and back stage communication (Goffman 1959) for learners and between colleagues.

The fourth common element that finds support by all stakeholders is the principle of empowerment. The empowerment factor relates to attitudinal and atmospheric features of teaching. To teachers and students in the public sector it is vital, and it arouses positive and negative emotions on both sides. In private sector the evidence shows a positive link between encouraging atmosphere and good performance (also affirmed by Losada 1999, Fredrichsen & Losada 2005). In the public sector encouragement relates to currency of content, emphasis on active oral communication practice and feedback to all, not only good students.

The principle of authenticity receives strong evidence from teachers, and weaker, though clearly existing, evidence from language training organizers and learners. Learners mainly seem to trust their teachers to identify authentic and realistic content, though when they identify it is not there, they seem to react. The principle of authenticity receives weaker support in the in-company learning environment, possibly because the learners already know the discourse practice of their field, if not in L2, at least in L1.

Each of the three stakeholders exhibit one more principle not mentioned by the other stakeholders.

The sixth principle of realistic extent and course format comes from the language training organizers. This is understandable, because in business training options and resources are available from intensive courses to online learning programs and weekly courses. A serious consideration of the slow-how nature of language learning could also help the public sector organizers to devise learning paths that allow sufficient time for learners to master the necessary content.

The seventh principle of authorization and anchoring comes from teachers, not from learners or language training organizers in the private sector. In the teachers' view LCPP is part of professional competence development and should also be a strategy-driven activity within its organization just like any other professional subject. The non-recognition of languages in this role shows through evidence in exclusion from decision-making processes, resource allotment, and even curriculum planning, which from administration may be required to be the same for all specializations. Evidence also shows that in the UAS context languages are still more recognized as externally motivated through legislation, and less as receiving internal authorization and anchoring in institutional strategy, internationalization strategy and practical international operation.

The eight principle of agency and autonomy comes only from the learners. The evidence shows that they do wish to have not only autonomy – 'capacity of detachment, critical reflection, decision-making and independent action' (Little 1991:4) – but also 'power to produce effects by collective action' (Bandura 2000: 75). The construct of LCPP needs to include learners as independent thinkers and professionals although evidence from teachers of pre-service learners cannot always confirm this.

Figure 17 brings the perspective of European language policy to the discussion of LCPP, since also Finnish language policy making must comply with this. European values of language policy are based on plurilingualism and pluriculturalism (Laeken Declaration 2001; Guide to Language Policies 2003); intercultural communication is encouraged (Guide to Language Policies 2003). Education policy statements import its requirements of transparency of education and recognition of both informal and formal language learning (Copenhagen Declaration 2002; Guide to Language Policies 2003) to Finnish language policy making. The Common Framework of Reference for Languages (CEFR 2001) is used as a point of comparison in European language education, despite its disadvantages such as the fact that it lacks an element of intercultural communication integration and references. The requirement of two languages besides one's own language (White Paper 1995) has been approved by the EU Member States.

According to the stakeholders LCPP has to be based on authentic, realistic knowledge of target professional communication activity in the discourse communities of the field, scoped in such a way that it becomes intrinsically motivated authentic action (van Lier 1996:13). Teacher activity must be based of principles of professionalism, including knowledge, skills and attitudinal elements, as detailed in Section 6.3. The attitudinal element results in an encouraging atmosphere, where student agency and involvement are encouraged. These groups tend to have a good team spirit, and collective discipline is also exercised, as the environment is experienced as safe for learning.

7.3. Practical Implications of LCPP

We will now progress to analyzing what practical implications the findings shown in section 6 can give rise to. Each stakeholder group will be analyzed separately to improve the practical apalication of LCCP.

7.3.1 Practical LCPP Program Theory on Language Training Organization

The perspective of language training organizers contributes to the understanding of how LCPP is organized, i.e. course design, where the analysis of ‘good courses’ and ‘unsuccessful courses’ has brought about an opportunity to establish observations that support good courses, and on the other hand, cause problems.

Contributions to LCPP program theory in the light of the research material concern the learnings about quality language course design in the context of private language training. We have found that the principles of planning bring value added to the learning of participants and the organizer as satisfied customers.

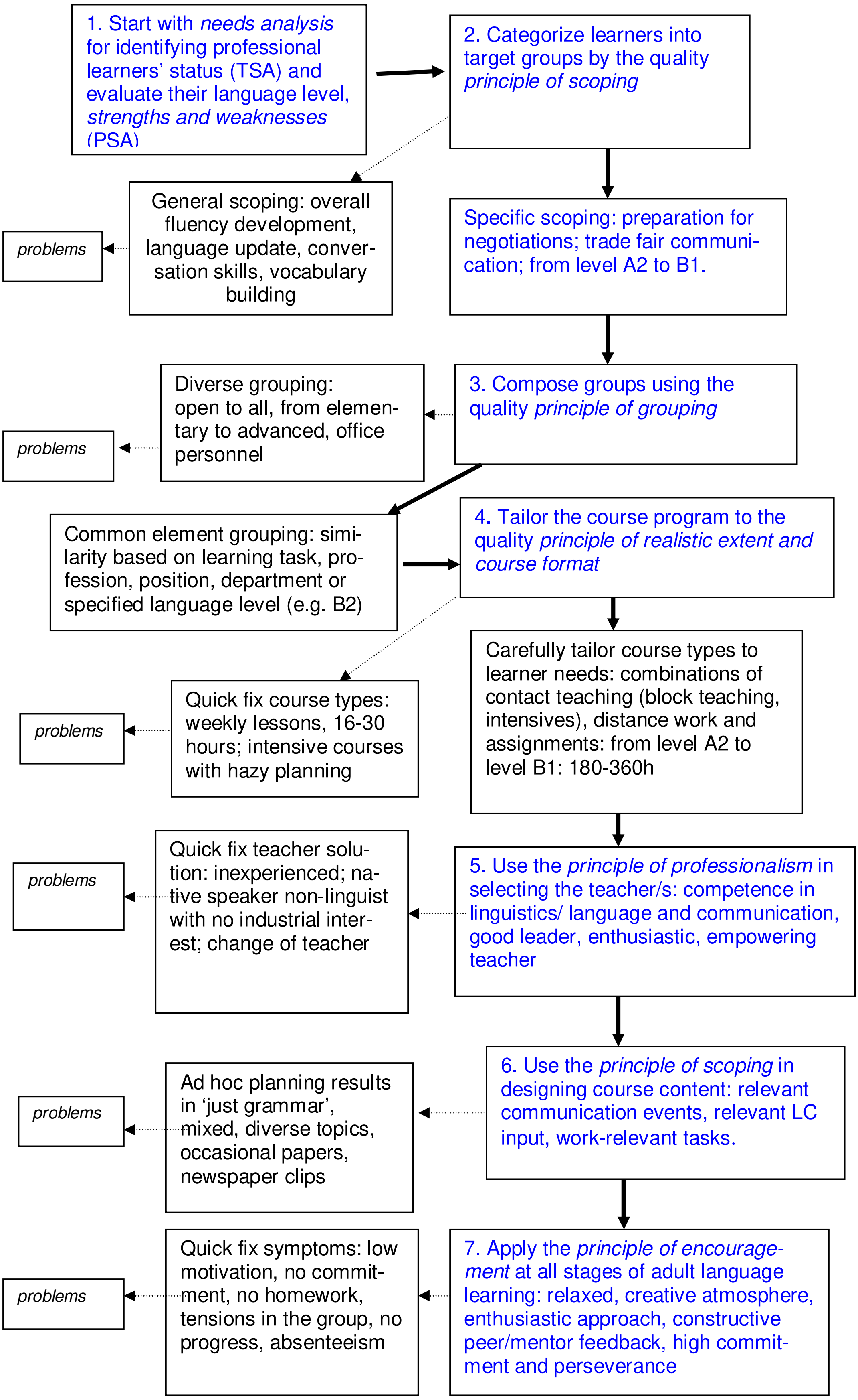
To sum up, a good language program seems to be based on careful considerations of course design. Taking several key elements into account in the design can help make the program effective for the learners and the company, as shown in Section 6.2.

A successful language program consists of courses designed realistically for the appropriate skill level of each group. Target groups are collected on the basis of a common element of experience: group members may have the same task, the same profession, the same department, the same company or the same language level. This is an interesting finding, as many language teachers share the understanding that groups need to be internally homogenous regarding their language skill level. In the context of private language training, good language courses can be achieved even if the participants’ language proficiency is diverse.

The length of the course is carefully considered, taking into account the realities of participants’ workload, good learning, and financial aspects. The course type is matched to the participants’ needs. A sufficient number of learning hours and sufficient access to language must be secured, either as contact class work, guided self study, assignments or work projects or visits and trips conducted in the foreign language – with systematic learning objectives. Language courses are built on needs analyses; they have a specified and not too broad objective. The purpose can also be tailored to meet the needs of a person or a group or concentrate on solving a communication problem at work such as trade fair communication.

Quality language training is systematically monitored by collecting feedback from the participants and teachers, by testing trainees, by organizing testing either with the teacher or an outside auditor or consultant. Co-operation between all the parties seems to be a key element for high quality language training.

Based on the re-evaluation of open response replies of language training organizers describing ‘good courses’ and ‘unsuccessful courses’, we can illustrate the program theory as a utilization-focused evaluation flow chart in line with Patton’s suggestion (Patton 2008:568-569). The bold arrows follow the positive path of LCPP course design, the interest of language training organizers. The dotted arrows show negative distractions into less effective language training. The flowchart, figure 14, summarizes the findings of NA1-3 with respect to organizing language in the private sector.



1. Start with *needs analysis* for identifying professional learners' status (TSA) and evaluate their language level, *strengths and weaknesses* (PSA)
2. Categorize learners into target groups by the quality *principle of scoping*
General scoping: overall fluency development, language update, conversation skills, vocabulary building
problems
Specific scoping: preparation for negotiations; trade fair communication; from level A2 to B1.
3. Compose groups using the quality *principle of grouping*
Diverse grouping: open to all, from elementary to advanced, office personnel
problems
Common element grouping: similarity based on learning task, profession, position, department or specified language level (e.g. B2)
4. Tailor the course program to the quality *principle of realistic extent and course format*
Quick fix course types: weekly lessons, 16-30 hours; intensive courses with hazy planning
problems
Carefully tailor course types to learner needs: combinations of contact teaching (block teaching, intensives), distance work and assignments: from level A2 to level B1: 180-360h
5. Use the *principle of professionalism* in selecting the teacher/s: competence in linguistics/ language and communication, good leader, enthusiastic, empowering teacher
Quick fix teacher solution: inexperienced; native speaker non-linguist with no industrial interest; change of teacher
problems
6. Use the *principle of scoping* in designing course content: relevant communication events, relevant LC input, work-relevant tasks.
Ad hoc planning results in 'just grammar', mixed, diverse topics, occasional papers, newspaper clips
problems
7. Apply the *principle of encouragement* at all stages of adult language learning: relaxed, creative atmosphere, enthusiastic approach, constructive peer/mentor feedback, high commitment and perseverance
Quick fix symptoms: low motivation, no commitment, no homework, tensions in the group, no progress, absenteeism
problems

Figure 14. LCPP program theory from the organizer perspective.

As illustrated in figure 14, the design process for private sector applications, follows the guidelines set for language auditing. The process starts with a needs analysis of potential course participants, including target situations analysis (TSA) and current situation analysis (PSA). This idea dovetails with the ideas of ESP specialists (Dudley-Evans & St.John 2002:125; Robinson 1991; Long 2005:41). At stage two, learners are divided into groups based on the objective needs of the target situations, based on the character of the need and object of the need, as discussed in more detail in Section 2.3 (van Hest & Oud-de Glas 1991:13). According to the findings of NA1-3, the purpose of the course must be specific rather than broad and diverse. Here the evidence of NA1-3 supports the 'narrow angle focus' of successful LCPP courses mentioned by Hyland (2002) and Huckin (2003). Their frame of reference refers mainly to the public sector, but we have also seen, the narrow angle is preferred by customers of the private sector as well.

7.3.2 LCPP Program Theory from the Teacher Perspective

Of the five principles of LCPP language course planning as emerged for corporate personnel introduced in section 6.2, four of them receive support through the analysis of needs analyses 4-7 from the perspective of language teachers. Two new principles needs to be added from the teacher perspective, that of authorization and anchoring and that of principle of authenticity, which only slightly appeared in the language training organizer evaluation results. Thus from the teacher perspective LCPP is constructed of six elements into the following LCPP program theory flowchart, figure 15.

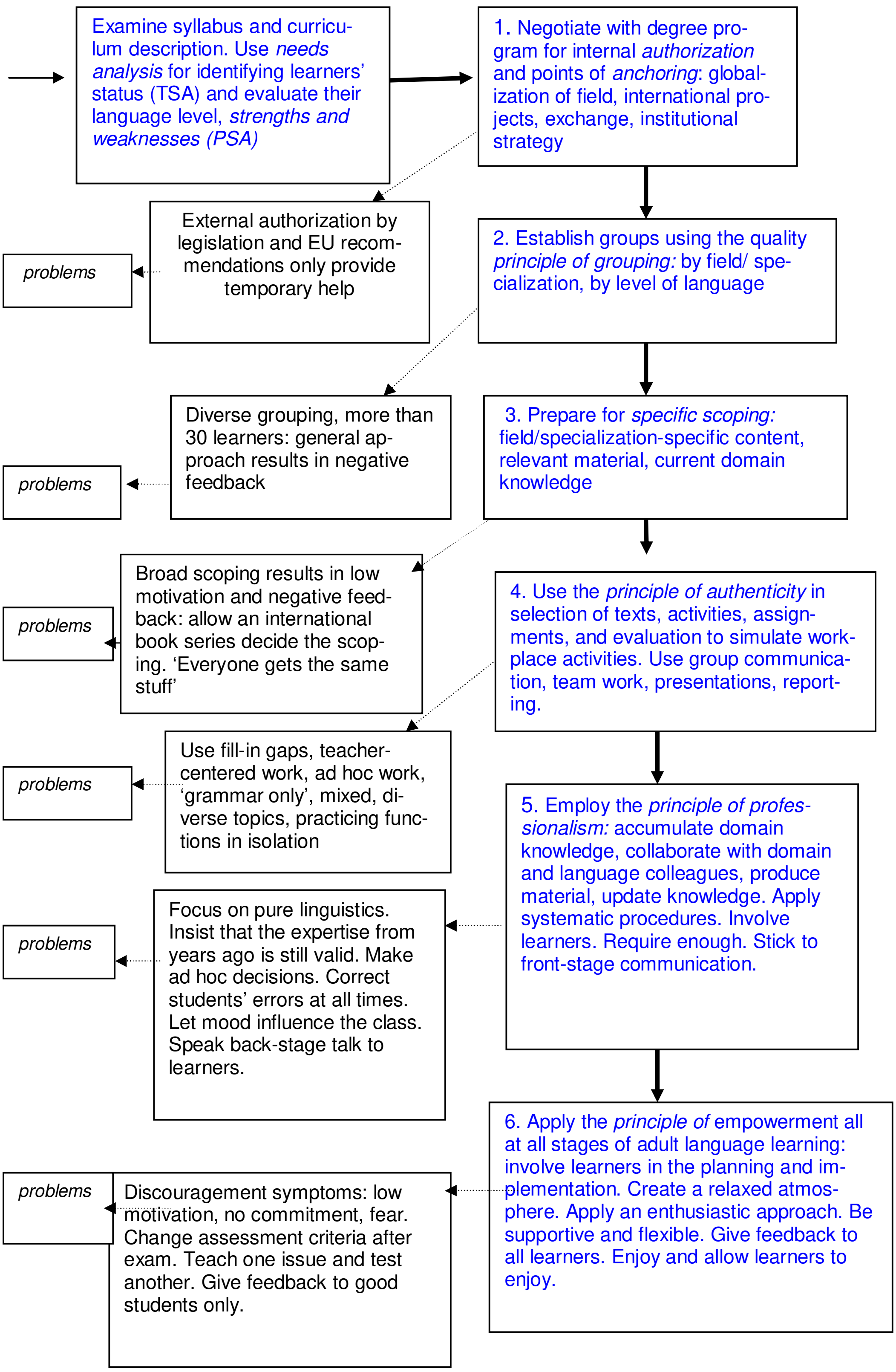

Examine syllabus and curriculum description. Use *needs analysis* for identifying learners' status (TSA) and evaluate their language level, *strengths and weaknesses (PSA)*
1. Negotiate with degree program for internal *authorization* and points of *anchoring*: globalization of field, international projects, exchange, institutional strategy
problems
External authorization by legislation and EU recommendations only provide temporary help
2. Establish groups using the quality *principle of grouping:* by field/ specialization, by level of language
problems
Diverse grouping, more than 30 learners: general approach results in negative feedback
3. Prepare for *specific scoping:* field/specialization-specific content, relevant material, current domain knowledge
problems
Broad scoping results in low motivation and negative feedback: allow an international book series decide the scoping. 'Everyone gets the same stuff'
4. Use the *principle of authenticity* in selection of texts, activities, assignments, and evaluation to simulate workplace activities. Use group communication, team work, presentations, reporting.
problems
Use fill-in gaps, teacher-centered work, ad hoc work, 'grammar only', mixed, diverse topics, practicing functions in isolation
5. Employ the *principle of professionalism:* accumulate domain knowledge, collaborate with domain and language colleagues, produce material, update knowledge. Apply systematic procedures. Involve learners. Require enough. Stick to front-stage communication.
problems
Focus on pure linguistics. Insist that the expertise from years ago is still valid. Make ad hoc decisions. Correct students' errors at all times. Let mood influence the class. Speak back-stage talk to learners.
6. Apply the *principle of* empowerment all at all stages of adult language learning: involve learners in the planning and implementation. Create a relaxed atmosphere. Apply an enthusiastic approach. Be supportive and flexible. Give feedback to all learners. Enjoy and allow learners to enjoy.
problems
Discouragement symptoms: low motivation, no commitment, fear. Change assessment criteria after exam. Teach one issue and test another. Give feedback to good students only.

Figure 15. LCPP program theory from the teacher perspective.

Figure 15 summarizes the views expressed by the language teachers in the NA5 evaluation. Language courses that followed the six principles of good practice located in the right hand column of the flowchart received positive feedback in the evaluation, whereas practices contrary to the six principles received negative feedback in the evaluation. The included principles are:

- principle of authenticity (yes)
- principle of scoping (yes)
- principle of empowerment (yes)
- principle of professionalism (yes)
- principle of authorization and anchoring (added by teachers)
- principle of grouping (indirectly)

The program needs to be scoped (1) around authentic (2), relevant needs of the workplace. This anchoring (3) to the workplace should authorize (3) the status of a language program in the institution. If it does not, there is always the obligation imposed by current legislation and the recommendations of the EU White Paper on Education and Training (1995), which Finland has signed, postulating that EU citizens need to speak two languages besides their native language. Teacher professionalism (4) is increasing and gaining a recognized specialist status, especially as some teachers have been sensitive enough to teach intercultural communication alongside with language teaching, and integrated domain and language teaching. Some teachers need unlearning (Hedberg 1981) to free themselves from routine practice, use of outdated methods, and insensitive assessment. The principle of empowerment (5) starts from teacher efforts to stay current and update domain skills on a regular basis, to use interesting and current subject matter in class, and to update materials regularly. The principle of empowerment invites the teacher to approach integrated learning opportunities with open eyes and to meet the learner on a supportive and equal basis. Learner involvement in oral communication is respected by students, as well as giving feedback to not only good students, but all learners.

In the technology context of the four evaluated degree programs, language courses are tightly squeezed into UAS curricula, which are not always seen as a positive phenomenon by domain experts. Language teaching is still seen as something of an anomaly that does not necessarily fit well into the scheme of professional studies. Collaboration of language teachers with domain experts occurs in many teaching projects, but the evaluation results show that this collaboration is not a systematic feature of UAS language education, as witness the numerous contradictory opinions in the evaluation logs. SSIs point our how “languages are not the first choice” and how “students prefer to choose professional subjects”. This may be true from an SSI angle, but student feedback indicates that some degree programs restrict the amount of language studies in optional studies and instead require that a certain professional course package A or B must be taken as so-called free choice optional studies that originally were meant by the Ministry of

Education to be genuinely free for the student to choose as he/se wishes. This invisible control by degree programs thus limits the potential for additional language courses at UASs for interested students, while also undermining the EU plurilingualism principle and the findings of NAs demanding a wider language and communication resource base for the language profiles of employees. Therefore, if national language policy were to influence a wider language resource base, one element would be to assign the free choice subject quota unambiguously to 'student free choice', not 'degree program limited choice'. The students of these four programs could study more languages if they were allowed to do so and if the courses were scheduled so as to make this possible.

Collaboration of language teachers with domain experts and workplaces is seen as vitally important for both domain experts and language teachers. Language teachers show clear signs of wishing to increase the collaboration with SSIs and the workplace community. The NA5 evaluation data provided several interesting examples of good practice. Identified reasons such as workload pressures and the multitude of fields involved prevent systematic progress in this endeavor. Languages are seen as important in some fields (IT, automotive engineering) but not in others (electrical power engineering, electronics). Domain experts encourage company expert visits, consultation with Board of Trustee members, and the use of professional subject materials in language teaching. A needs analysis is conducted at the beginning of some UAS language courses, but this is not a systematic feature.

As for progress in the focus of communication, the NA5 evaluation logs show that the contents of teaching have been influenced by NA studies such as Prolang (NA4). The teaching is geared towards practicing of the range of communication situations (level 5 in section 5.1) in the professional field and communication practices in the discourse communities of the field (level 6 in Section 5.1). Genres (level 4, Section 5.1.) of many kinds, such as business letters, telephone calls, negotiations, meetings, process descriptions and students' career and study plans, discussed through CVs, job interviews and applications, are mentioned as genre examples in the evaluation logs. Knowledge required from the teacher to give background to these topics concerning the practices in discourse communities requires work experience, frequent contacts with company professionals and readings of journals. Some language teachers follow the general school system, where books are provided, failing to see that requirements of different degree programs are different: "We imagine that the book in use covers what is needed on the course in question." This may be one of the reasons why students feel dissatisfied.

Discussion logs include student feedback such as this: "Teachers should know more about the professional field", "We should have more technical content," "El Power Eng students do not get Technical English," and "There are company profiles and other general content." Though these voices are in a minority in student feedback, the message is strong and needs to be addressed. Students are definitely taking a stand in the discussion of 'wide scope' (Hutcheson & Waters 1980) vs. 'narrow scope' (Hyland 2000, 2002; Huckin 2003) in LCPP. Though some developers of teacher education argue that teacher education caters to LCPP teachers as well as general education students, there are symptoms that some language teachers have a shortage of knowledge of the fields involved, a shortage of skills and tools for gathering information, perhaps reluctance to enter unknown fields, and too little time given for coping with the multitude of challenges. This calls for education and further training: NA5 spells out the training needs of 21 teachers expressed in portfolios: 17 out of 21 formally competent language teachers expressed a wish to learn more about language and communication in the professional fields as one of the three training wishes they were requested to submit (NA5: Portfolio report, March 25, 2002). The need for specialized further training is acknowledged amongst some developers of teacher education (Kantelinen 1998, Jaatinen et al 2001). Although almost all of the language teachers in NA5 had a background of working in companies, even experienced language teachers express a request for work placement in companies for updating their views and getting a realistic view of actual communication. The second request from language teachers was to be sent for study abroad to the target language country for updating their knowledge of current language usage and language change.

We also see that intercultural competence building is taken up by all parties: language teachers, domain experts and learners. This aspect needs to be addressed in LCPP. We have also seen that it is not addressed in a systematic way at either of the two UASs, though plans and ideas have been put forward and some good practice exists. Another significant point appearing in the discussion logs is that tailoring language material is not regarded as a recognized resource need at UASs. Language teachers recognize this need and use a lot of time for gathering and processing the material but seldom have time to process their work into a publication. And if they do, this work is considered a private activity, not paid work. In a market of the size of Finland, such activity is rarely profitable.

In the LCPP teachers appear as an emancipatory professional group searching for identity. The practice of LCPP teachers can be characterized as learning through the ‘theory-in-use’ principle, where errors in activity are detected and corrected through single-loop behavioral learning and not much through double-loop learning. A community formed around this practice is likely to follow the same traditional ways and patterns. In contrast, the higher cognitive level of double-loop learning is where the organizational norms and assumptions come to be questioned, leading to the establishment of a new set of norms. This pattern often leads to new ways of working and acting (Jaspahara 2004:65-66; based on Argyris and Schon 1978). The relatively ‘young’ professional community of LCPP teachers is in the process of establishing itself as a self-recognized community. To use Japahara’s conceptualization of non-canonical and canonical practice (Jaspahara 2004:207), we may say that the LCPP teachers’ informal community is in the process of evolving from non-canonical practice to formal, canonical practice as LCPP teachers are forming networks of practice within their own communities and with other communities.

Language teachers at the UASs have been revitalizing progress in the past fifteen years: instead of being semi-professional general language educators, LCPP teachers have started to establish a professional community of their own, which includes

- anchoring their professional activity to the roots of ESP/LSP
- starting their own publishing activity
- organizing themselves into conferences, seminars, working groups as reported in section 4.5.2
- participation and presentations at international conferences
- collaborating in national and international projects
- formalizing their implicit field-specific professional expertise
- questioning their insufficient specialist education, since they receive their basic teacher education in the same groups with general primary and secondary school teachers (ARENE language group; Huhta 2008)

Language teachers involved in ESP and LCPP are struggling to gain distinction in the context of national language policy (Ministry of Education) and also in the context of general language teaching (Association of language teachers for primary and secondary schools, SUKOL ry). So far, LCPP teachers have not been recognized in the national teacher training policy, as shown in Section 3.3. LCPP teachers are represented by the Association of language teachers for primary and secondary school teachers (SUKOL ry), and thus any impact they may have on national policy making is filtered through the values of general language education.

As for the language education paradigm, introduced in section 2.2. it seems that LCPP language teachers teaching practice frequently supports sociocultural and experiential learning. It can also be seen that teacher objectives, as put forward by statements concerning teaching content, support intercultural communicative competences. Teachers' use of workplace-orientated tasks and portfolios match Kohonen's fourth generation teaching paradigm of authentic assessment, portfolio and self assessment (2005).

7.3.3 LCPP Program Theory from the Learner Angle

Of the seven emerged principles of LCPP education the learner perspective supports five of them (in bold type) and brings in a new principle, that of *agency and autonomy*.

- principle of agency and autonomy (added)
- principle of grouping (yes)
- principle of professionalism (yes)
- principle of encouragement (yes, strongly)
- principle of authenticity (yes)
- principle of realistic extent (implicitly)
- principle of scoping (indirectly)

The LCPP program theory includes five central elements if considered from the learner perspective, as illustrated in figure 16.

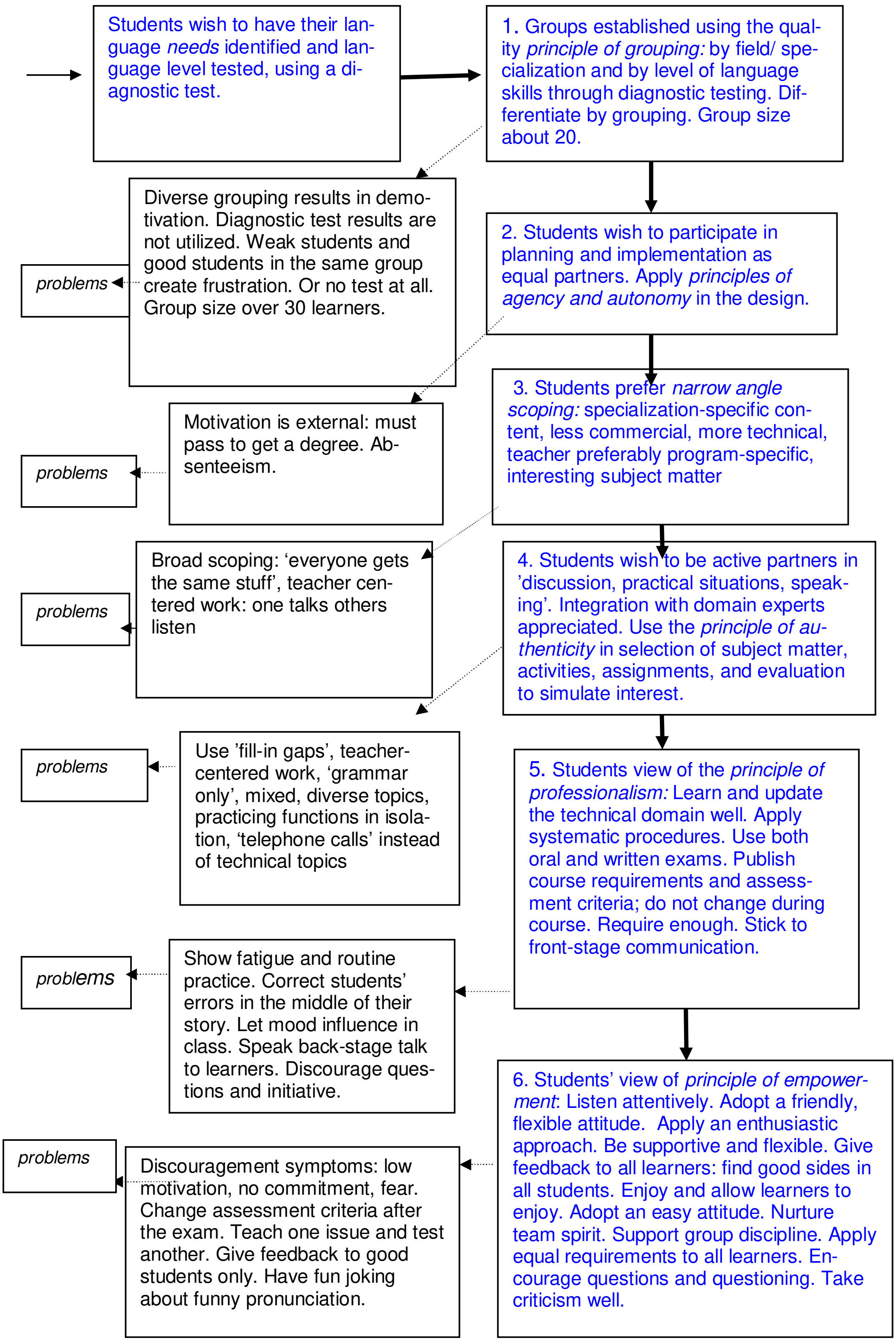

Students wish to have their language needs identified and language level tested, using a diagnostic test.
1. Groups established using the quality principle of grouping: by field/ specialization and by level of language skills through diagnostic testing. Differentiate by grouping. Group size about 20.
Diverse grouping results in demotivation. Diagnostic test results are not utilized. Weak students and good students in the same group create frustration. Or no test at all. Group size over 30 learners.
problems
2. Students wish to participate in planning and implementation as equal partners. Apply principles of agency and autonomy in the design.
Motivation is external: must pass to get a degree. Absenteeism.
problems
3. Students prefer narrow angle scoping: specialization-specific content, less commercial, more technical, teacher preferably program-specific, interesting subject matter
Broad scoping: 'everyone gets the same stuff', teacher centered work: one talks others listen
problems
4. Students wish to be active partners in 'discussion, practical situations, speaking'. Integration with domain experts appreciated. Use the principle of authenticity in selection of subject matter, activities, assignments, and evaluation to simulate interest.
Use 'fill-in gaps', teacher-centered work, 'grammar only', mixed, diverse topics, practicing functions in isolation, 'telephone calls' instead of technical topics
problems
5. Students view of the principle of professionalism: Learn and update the technical domain well. Apply systematic procedures. Use both oral and written exams. Publish course requirements and assessment criteria; do not change during course. Require enough. Stick to front-stage communication.
Show fatigue and routine practice. Correct students' errors in the middle of their story. Let mood influence in class. Speak back-stage talk to learners. Discourage questions and initiative.
problems
6. Students' view of principle of empowerment: Listen attentively. Adopt a friendly, flexible attitude. Apply an enthusiastic approach. Be supportive and flexible. Give feedback to all learners: find good sides in all students. Enjoy and allow learners to enjoy. Adopt an easy attitude. Nurture team spirit. Support group discipline. Apply equal requirements to all learners. Encourage questions and questioning. Take criticism well.
Discouragement symptoms: low motivation, no commitment, fear. Change assessment criteria after the exam. Teach one issue and test another. Give feedback to good students only. Have fun joking about funny pronunciation.
problems

Figure 16. LCPP program theory from the learner perspective.

In figure 16 we can see that from the learner perspective the principle of grouping is essential: to identify with the right level, gain entrance to a group with similar learning capabilities and a realistic chance to progress from the learner's level. Agency and autonomy are appreciated: a chance to participate in both planning and implementation of course events. Student comments speak for the narrow angle focus of LCPP teaching: more technical, less commercial, preferably as focused to the specialization as possible. For learners teacher professionalism materializes in up-to-date material, current interest professional issues, and knowledgeability of the teacher in students' specialization. Learner empowerment can be supported by giving feedback to all students, nurturing group spirit and an easy-going attitude. Authenticity from the learner view refers to the use of authentic materials and tasks relevant for the learners' specialization, including authentic activities to stimulate learner interest.

The learner contributions of this study match inevitably the fourth generation language teaching paradigm (Kohonen 2005) of language education. Learners favor authentic tasks and authentic assessment. Their expressions of optimal learning match what has been described by Kohonen as sociocultural and experiential learning.

7.3.4 LCPP Program Theory for National Language Program Policy Makers

Needs analyses conducted in business and industry have resulted in requests for reorienting language policy making, such as the following points in the empirical data in NAs 1-4 that send a clear message to language program policy making (NA1-4) .

- The language choices of Finns need to be broadened to include a wider language repertoire
- Curricula need to include more oral skills in both general and vocational language education
- Oral skills education needs to be part of language teacher training
- Language learning input needs to be increased in vocational education
- The demand for competences in lingua franca English requires socio-cultural knowledge about communication situations, intercultural competencies and tools for analytical thinking

Additionally, it has become evident that LCPP teacher training needs to be recognized as a separate specialization from general language education and measures need to be taken to organize training for this target group. Secondly, this major group professionals of LCPP teachers in UASs, university language centers, private language training and vocational secondary education. Language needs analyses can be affective ways of identifying language needs within various sectors of industry and economy, if the metrics are developed in such as ways as to make longitudinal comparisons possible. This has not yet happened in many of the past needs analyses.

Secondly, the Finnish linguistic eco-system has changed significantly since 1978, which is when the cornerstones of national language policy were laid (see summary of milestones of language education in Appendix 2). Because of the novel situation, a current map of the linguistic eco-system to 2010-2020 needs to be drawn, using Cooper's suggested elements of linguistic policy.

The main guidelines of Finnish language program policy were laid down in the 1970s, and therefore it is now time to review and reassess the societal needs, building on the results of needs analyses conducted since the 1990s. A current language policy must include estimates of the needs of workplaces – business and industry, but also other walks of life. Some of the change input suggested in their results has not yet been tackled, and certainly the results of future needs analyses will address issues that are not foreseeable at this moment.

In Cooper's proposal, several factors must be examined to gain a comprehensive understanding of the linguistic eco-system. Such consideration must include an evaluation of (I) what actors influence the accounting scheme for language planning, (II) attempts to influence the linguistic environment, (III) people and their overt and latent behavior, (IV) linguistic conditions: situational, structural (political, economic, social, demographic/ecological) and cultural, environmental conditions. The problem of the (VI) means to conduct language policy needs to be solved, as language policy making in Finland is not assigned to any specific authority that could conduct regular updates of national language resource development and act accordingly. Cooper also calls for (VII) a decision-making process through which language planning takes place. The final element of Cooper's accounting scheme concerns (VIII) the effects of language planning as e.g. learner choices or national language resources. (Cooper 1989:98) [iii].

The Model for National Language Program Planning used in the 1970s was built on Stern, Strevens and Spolsky, and constructed by Sauli Takala (1979; 1998; Piri 2001), as shown in Appendix 1. The model includes society only in the role of the organizer of language education, not as the originator of language or communication needs. A similar trend can be seen in the fairly recent language policy review (Kiepo 2007), which includes the working life perspective only in the role of collaborator for organizing language training (Sajavaara & Salo 2007), not as a societal stakeholder whose language and communication needs must be reviewed and quantified in order to make a due assessment of current and future needs of major economic and societal organizations in the country.

On considering the needs analysis feedback from companies and their employees, it is relevant to reverse the Takala model and to insert the element of societal language and communication needs as the most important single factor that should influence national language policy. This reconstructed model, introduced as figure 17, takes into account the need of national language resources, and workplaces are included as societal stakeholders, unlike in Baldauf & Kaplan's model in Section 3.4.1 or in Takala's model (Appendix 1).

Stakeholder-based model of language program policy design	
1. Societal level 1.1. Societal LC needs 1.2. National language policy	Global communication environment; EU language policies; Demography of language eco-system; Language needs analysis of key fields of national economy and culture; Regular quantitative language needs surveys; Established national language education policy-making authority structure
2. Educational system (Infrastructure)	Language program policy making for primary, secondary and higher education; Organization and administration procedures; Monitoring of language teaching practice
3. Academic development of language teaching (Strategy)	Scientific foundations: Applied linguistics, sociolinguistics, psycholinguistics, language education and learning, language programme policy design; Curriculum design approach, Language education design, Research, Language teaching and learning theories
4. Teaching systems and language teaching (Tactics)	Teacher education - general language teaching -teacher education program for professional purposes; Implementation of language teaching - organization - curriculum - plan for teaching - teaching materials
5. Level of learners and language learning	General education learners; General education adult learners; Learner groups; **Pre-service professional and vocational learners**; Individuals with specific language needs; **In-service professional and vocational learners**

Figure 17. Stakeholder-based model of language program policy design.

The stakeholder principle, demonstrated in figure 17, is a defendable principle for any social activity such as language education, as language program policy is a public endeavor and intended for the public good. This stakeholder principle assumes that not only insiders of language education but also external parties such as the 'requirer' and 'user' organizations should be consulted concerning the development of educational activities. For example, the UAS language training evaluation in NA4 involved subject specialist teachers, management, external companies and professional organizations and university experts to gain a multi-interest view of the phenomenon of language education.

When the national teacher education planning committee was formed to review the teacher situation and to propose action plans for the future, the assignment was to “hear the representatives of universities providing teacher education, representatives of teacher and student organizations, the Association of Finnish Local and Regional Authorities and other key interest groups of teacher education” (Teacher Education 2020:10); here, too, the aim was to gain a multi-interest view. However, in practice interest groups were not consulted despite the committee’s intentions, as shown in Section 6.5.

The review of teacher education (Teacher Education 2020) can be characterized as university internal endeavor, focusing strongly on the interests of universities and teacher training organizers and their funding. Minor and wholly insufficient attention was paid to the social and societal considerations of teacher education. Industry and business were represented by one invited member among 16 other invited organizations at one meeting, which was insufficient for consideration of the needs of the employer and a major societal and social stakeholder and requirer of educated and communicatively competent personnel. The requirers of language teachers for professional purposes – universities of applied sciences or vocational institutions, requirers of language teachers – were not represented at all. The principle of stakeholder representation needs to be discussed in society. Language teaching for professional purposes is an existent specialist field, which needs its recognition and location in the educational policy making. They need to become stakeholders of national education policy making as well as general language teacher organizations such as SUKOL.

Measures need to be planned to ensure that stakeholder interests are heard in the process of national education policy making. Standards need to be set for defining a ‘sufficient level of stakeholder representation’ in national education policy making, including a represention of industry and business, a key stakeholder force of the Finnish economy. A specifically nominated language education program body in the political system is missing. Such a body needs to exist in a country so highly dependent on global business. Reasons for evading language education policy making are further discussed in the conclusions section.

7.4. Research Implications for the Initial Theory of LCPP

To conclude, we will discuss the theoretical contribution of this study based on the findings of the language needs analyses.

7.4.1 Candlin's Model Revisited

Needs analysis methods have evolved, and progressed towards evidence-based, multimethod data collection and systematic ways of structuring the gained knowledge into easily utilized formats such as NA7.

As we compare Candlin's model of professional discourse to the NA7 professional profile, we find that all of the elements developed in LCPP practice find a location in Candin's model, thus practice and theory, each developed apart, have come to a similar understanding of central elements of professional communication.

Figure 18 rewrites Candlin's model of figure 6, with elements of CEF professional profile, the latest evidence-based needs analysis (NA7) located in the vicinity of appropriate component of Candlin's model. Some relevant literature references are also marked in figure 18.

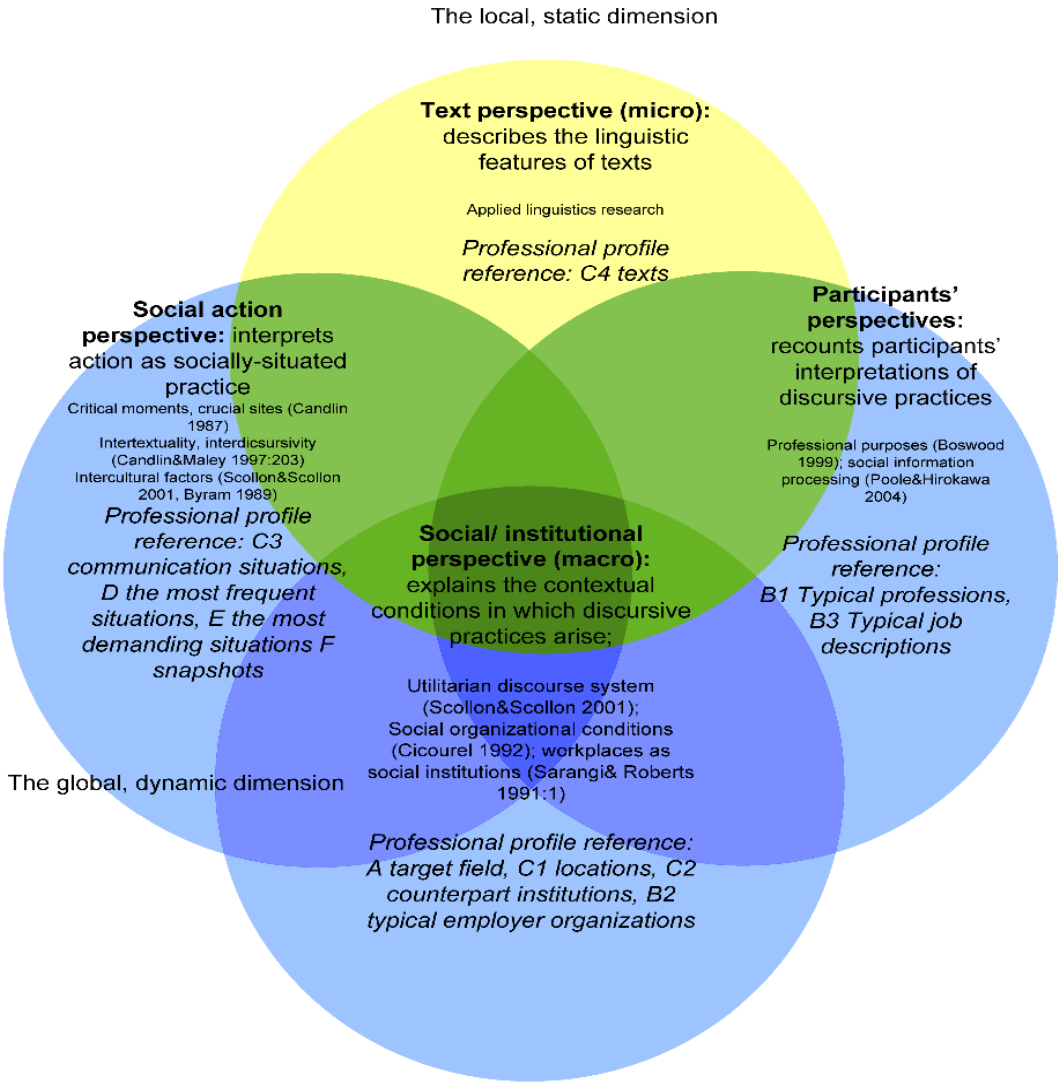


Figure 18. Redefined ontology of Language and Communication for Professional Purposes (LCPP) with reference to professional profiling (based on Candlin 2005).

Figure 18 shows how the professional profile does provide data for the text perspective for the use of the teacher in accordance with applied linguistics (for references see section 2.2). However, in the light of needs analyses of this study we believe that the difficulty of communication experienced by engineers is not so much a question of static knowledge of language as it is of the dynamic nature of communication, with elements of intertextuality and interdiscursivity, expressed by the 'leaves' being formed in the dynamic spaces between the perspectives in the above figure. The center, where all the perspectives interlink, is the space of 'Discursive practice' of the professional community as per Candlin (2005).

Based on NA5, demanding communication situations are experienced not with Scandinavians, Europeans or Asians but most frequently with North Americans or other nationalities (Huhta 1999:113, NA4). These involve group interaction in 70% of the cases, not one-to-one communication or presentations (Huhta 1999:114, NA4). The experienced difficulty is caused by language deficiency as one factor, but also by a number of other reasons largely unrelated to language skills per se: the complexity or unexpectedness of the situation, the counterpart's accent or the speaker's own expertise on the subject, the difficulty of the issue, experienced stress, or lengthy talks (Huhta 1999:108). Many of these factors have to do with the unexpected discourse practices of foreign cultures, organizations and persons encountered.

On matching the theories of communication with the newest needs analysis practice of professional profiles (NA7), we find that professional profiles illuminate dynamic dimension of communication, as social theorists have been arguing for some time.

The social action perspective describes social organizational conditions (Cicourel 1992) and details of workplaces as social institutions (Sarangi & Roberts 1991:1). Professional profile Part B, Occupational information, gives typical employer organizations (B2), frames the locations (C1) where communication takes place and names the counterpart companies and institutions (C2). These factors make it possible to look for contacts in the right context. The critical moments and crucial sites (Candlin 1987) of communication are shortlisted as communication situations (C3) and detailed as descriptions of demanding situations (E) and snapshot situations (F).

Discursive practices (Foucault 1984; Fairclough 1995; Goffman 1974; Candlin 2005) are portrayed through the information given as frequent situations (D), demanding situations (E) and snapshot situations (F) in the professional profile.

In the knowledge work set-up, the learner is involved in social information processing, analytical functions, procedural functions, synergistic functions and rhetorical functions (Poole & Hirokawa 2004:12), as discussed in Section 2. The professional profile details typical job descriptions (B3), personal counterparts in communication (C2) and differentiating between individual, professional and public partners (C2). This information portrays communication in this field at a professional-to-professional standard, with the required body of knowledge and mastery of skills (Boswood 1999:4-6). As the learner has his/her own interpretation of the communicative practice, the professional profile listing of communicative events (Saville-Troike 1989:27) helps to see an overview of potential communication situations (C3).

In sum, we find that the needs analysts in their LCPP practice, conducting NAs 1-7, have intuitively moved towards ontologies of LCPP that match well established social theories of communication such as Candlin's model. This finding, if nothing else, shows that the intuition-based practice also has recognized theoretical support.

7.4.2 Disciplinary Inferences of LCPP to Applied Linguistics

Authenticity and narrow scoping were key findings of LCPP from the NA material. From the point of view of applied linguistics narrow focus, in the context of NAs 1-7, does not mean focusing on the micro levels of language such as terminology or grammar or isolated functions, but the specificity of the learner in such a way that the context of professional communication, its crucial moments and critical sites (Candlin 2005) are covered, as holistic scenes and that the learner gets access to the discourse practices of his/her field, as was suggested in 5.7 – macro understandings of professional communities and their communication needs. Table 25 is a repeat of table 1, now highlighting the changed focus on the macro levels of communication rather than the micro levels of language.

Table 25. Changed focus of LCPP demand from micro levels to macro levels.

Focus of communication *(from least to most detail)*		Language and communication at work *Top down approach*	Spheres of learning in language and communication examples for a software engineer
8	macro	Wide horizons	Global business, economics, EU, country
7	macro	Society and culture(s)	Industry and business
6	**macro**	**Discourse community practice of the field (organization cultures)**	**Language/communication situations - within organizations of the field (e.g. ICT; field context), - organizational communication (e.g. company X) , - language of adjacent professions (e.g. engineers, business experts) -inter-professional communication (interdiscursive practice)**
5	**macro**	**Range of communicative events of a profession and culture(s)**	**Communication situations in software engineering (in group professional context); Professional interaction**
4	micro	Communicative event	Discourse of genres, e.g. meetings, presentations
3	micro	Speech act	Communication strategies, politeness
2	micro	Utterance	Grammar, vocabulary, pronunciation, stress
1	micro	Sign	Meanings (designata), words

Table 25 makes a statement about the focus of language and communication research – which has been focused on the three lowest levels, and somewhat on the fourth level (see Section 3.1) – we find that in order to meet the requirements of the three stakeholder groups (language training organizers, teachers and learners), the level of knowledge needed from LCPP must involve higher or macro levels of observation rather than the micro levels.

Thus, one item of input from the learner angle is the demand for a narrow focus on the specializations of engineering, workplace communication in general and the practices of discourse communities. This, in turn, should influence the focus of research and teaching of LCPP. And, as we have seen in the evaluation of teaching, expectations of professional communication are not always met by learners, employees, domain experts or companies. There is ample scope for research work to be done for the more holistic levels of communication if industry and business language needs were better catered for by research.

7.4.3 Disciplinary Inferences of LCPP to Language Education

This study on the design and implementation of LCPP relates to language education. Indications of the latest needs analyses (NA4-7) shows how the language education paradigm no longer meets the needs of business and industry, if it relies on audiolingual practice or functional-notional competence building in reference to Kohonen's analysis table 2. Table 26 shows that NA1-7 data findings support the paradigm of socio-cultural and experiential learning, and intercultural communicative competence development, as suggested by Kohonen in the context of education.

Table 26. LCPP paradigms within foreign language teaching (based on Kohonen 2005a)

Linguistics	Learning	Language Teaching	Evaluation
Traditional, Philology	[no clearly defined theory]	Grammar-translation	Translation
Structuralism	Behaviorism	Audiolingual theory	Analytic tests
TG (Transformation theory), pragmatism, sociolinguistics	Constructivism Humanism	Functional – communicative competence	Integrative tests; self-assessment
Discourse analyses, Dialogue, study of discourse communities and interdisursive communication	**Socio-cultural and experiential learning**	**Language education, intercultural communicative competence**	**Authentic assessment; ELP (European portfolio), self assessment**

Table 26 shows in bold type the foci of language education research that industry and business communication needs seem to match best. LCPP language teaching was seen to receive good feedback by stakeholders when it relies on the discourses of narrowly scoped professional communication, authentic tasks and current material, and professionalism shown in the teaching. One of the main expectations from pre-service students was the wish for agency and autonomy of their own learning. This matches with the latest paradigm of language education, with autonomous portfolio creation, intercultural competence building and experiential learning.

7.4.4 Comparison to the Initial Expectations of LCPP

The starting point of this study was the wine glass metaphor of a working hypothesis, which called for a more in-depth understanding of LCPP. Having analyzed the data, we can now return to the glass and re-draw it, adding features that this study has given rise to. As we redraw the expectation from figure 2, we find the picture complementing itself with factor's from Candlin's model: social/ institutional perspective, participant's perspective and social action perspective as follows in the reconstruction of figure 19:

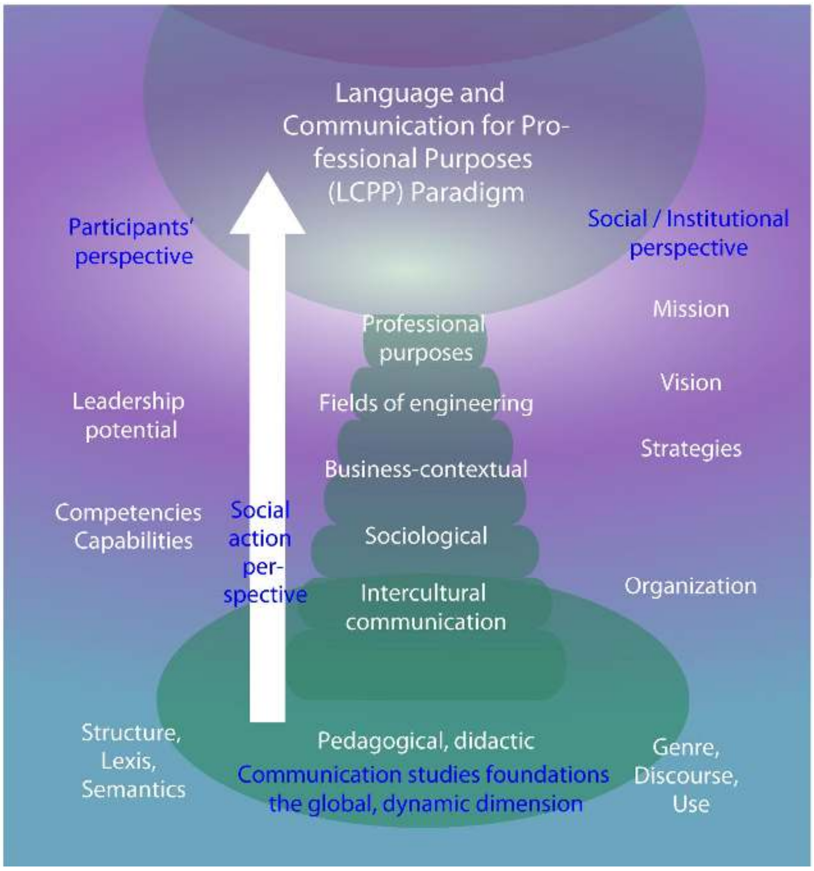


Figure 19. Redefined construct of LCPP.

Figure 19 complements the expectations put forward at the beginning of this study with elements discovered in the analysis. We have discovered that the more we examine language and communication used in business and industry, the more knowledge we need about the communication environment, relevant professions, issues discussed, processes pursued and goals achieved. This means that the kind of data that we as needs analysts sought to find in the latest needs analyses is likely to broaden the understanding of communication at the workplace because the content of communication circles around the visions, missions and organizational activities resulting from interpretations of corporate operations. This, in Candlin's terms, is the social and institutional perspective that is often missing in the applied linguistics approaches (2006).

Moreover, needs analyses have for a long time inquired into the individual's perceptions of his or her own language need. By contrast, in this wine glass, we see on the left qualities of the individual as perceived from the organization's angle: the appropriate mindset, leadership potential, competences and capabilities are factors that the organization has an interest in developing for its own purposes. These factors belong to the participants' perspective as per Candlin where the apprehensions of participants about the discourse to be communicated are materialized.

The third and most neglected component of the wine glass is the base, on which communication rests: the dynamic, social action perspective that depends on a number of variables: participants' national cultures put pressures on the strategies to be communicated, preparations to be made, and procedures to be favored. The sociological factors of grouping, teaming and performing in an encounter are part of LCPP. The type of business and field of engineering import community discourse practices that sometimes differ, sometime coincide with other fields. The fact that communication takes place for a professional purpose does not imply that the purpose of that communication is exclusively professional. The purpose of communication can be to inform, to entertain, to negotiate, or just to pass the time. With the above factors in mind, we find that the bottom of the base, the red zone, the linguistic paradigm of static language can be quite insufficient for LCPP, and therefore the addition of communication and organization theory brings the needed input of stakeholder needs. This is illustrated by figure 19, which is a reformulation of figure 2.

The progression seen in this study from the first needs analyses (NA1) to the most recent ones (NA7) leads us to consider communication as a social, holistic phenomenon. We may need to question whether applied linguistics still serves the purposes of LCPP or whether the developing communication theory works better as a framework for LCPP if we aim to teach language and communication to satisfy the needs of an employee who must communicate holistically in a dynamic discourse system rather than proceed on the slow path of constructing static texts and genres of texts from discrete elements of language. This is a valid consideration at least at the levels of language and communication competences which are above level B1.

7.6 Validity and Reliability in this Study

Validity relates to research measuring an object it is intended to measure (Trochim 2006). Reliability “refers to the consistency with which instances are assigned to the same category by different observers or by the same observer at different occasions.”(Hammersley 1992:67).

On overall level, qualitative research perceives validity and reliability differently from quantitative research. In terms of qualitative research key questions relate to the credibility, transferability, dependability and conformability of the findings. In this study the two first ones, credibility and transferability are now discussed in detail.

Based on House validity in evaluation means “worthiness of being recognized” (House 1980:249). For an evaluation this mean being “true, credible and right” (House 1980:250). House extends the notion of validity to the entire evaluation, not just data. An evaluation is perceived as valid in a global sense that includes the overall approach used, the stance of the evaluator. The nature of the process, the design, data gathering, and the way in which results are reported. Both the evaluation and the evaluator must be perceived as trustworthy for the evaluation to have high validity (Patton 2008:396). Believability depends on the users’ perceptions of and experiences with the program being evaluated, users’ prior knowledge and prejudices, the perceived adequacy of evaluation procedures, and the users’ trust in the evaluator (Alkin 1979: 245-7). Patton summarizes the underpinnings of overall evaluation validity in three points “trust, believability and credibility” (2008:396).

Credibility includes the perceived accuracy, fairness, and believability of the evaluation and the evaluator. Patton unfolds such details as report clarity, full and frank disclosure of data strengths and weaknesses, balanced reporting, defensible information sources, justified conclusions, and impartial reporting (Patton 2008: 396). On a more detailed level Patton links the credibility issue with rigorous techniques and methods for gathering high-quality data that are carefully analyzed with special attention to validity, reliability and triangulation. The credibility of the researcher depends on training, experience, track record, status and presentation of self. The researcher needs philosophical belief in the value of qualitative inquiry, inductive analysis, purposeful sampling, and holistic thinking. (Patton 1999:1190)

Patton recognizes doubts about the nature of analysis in qualitative findings. The quality of analysis depends on the insights and conceptual capabilities of the analyst. Therefore ways of securing the quality of analysis must be practiced such as testing rival explanations, dealing with negative cases, triangulation of multiple observers, theories, methods and researchers, and keeping methods and data in context. (Patton 1999: 1190-7).

> An aspect worth critique is the choice of evaluation research as method, I chose to call LCPP a program, to call the needs analysis data evaluations, and to call my examination of the needs analyses evaluation research, and then created a program theory for LCPP. In analyzing different parts of the data I have asked myself: am I evaluating or am I involved in evaluation research? The distinction is hazy, as Patton agrees, and affirms that the interest in evaluation research is more knowledge-orientated than action-orientated (Patton 1997:24).

This study has made an effort to examine the earlier evaluations (=needs analyses) in a knowledge-oriented rather than action-oriented manner (as that has occurred at the time of the needs analyses).

Credibility of this research

The seven needs analyses, the material of this study have been reported in detail, and the original questions asked have been presented in the appendices; if not, the questions have been published before in the relevant publications and only referred to in this study. The needs analysis methods of both existing literature (section 2.6) and the seven needs analyses (Section 5) have been evaluated and strengths and weaknesses analyzed, indicating clearly the data sources of learners, language training organizers and teachers and their LCPP contexts. In the evaluation stages of re-analysis of the seven needs analyses, the inductive data analysis was reported in 4.3, to describe how the principles of LCPP began to emerge from the material. All this has been done to demonstrate "rigorous techniques and methods for gathering high-quality data that are carefully analyzed with special attention to validity, reliability and triangulation" (Patton 1999:1190). It is true that names of companies and similar details do not appear in the material, but they are earlier published in the relevant NA reports mentioned in Appendix 3.

Several types of data have been analyzed for this study: the seven needs analyses spanning 20 years exhibit material from original questionnaires, statistical data sheets, reports of various kinds, interview transcripts, discussion logs, interview reports and portfolios, which have been challenging to analyze and organize into a coherent whole. As reported in the Method section 4, the use of a technical tool (NVivo) for analyzing the data was tried out and discarded for practical reasons, as some material is not in digital format, and less work could be saved than caused. The analysis had to be done manually by reading, rereading and clustering appearing classifications, and iterating the cycle, as reported in 4.3 and 4.4.

One of the strengths of this study is the amount of relevant, purposeful data. The used data comes from a variety of sources: employees NA1-2 and NA4, language training organizers (NA1-4), teachers (NA4-7), domain experts (NA5-7). The observations are done by a variety of observers (NA1-3: 1, the researcher; NA4: 21 language teachers; NA5: 31 language teachers, 28 degree progam managers, 245 learners) NA6::14 language teachers and 12 domain experts; NA7: 5 language teachers and 18 domain experts. Eight needs analysis methods have been used in

NA1-7, the research material of this study. The contexts where the LCPP program is applied are both company language training context and context of higher education. This multi-voiced approach has been taken to secure Patton's requirements of triangulation of multiple observers, methods and researchers, and keeping methods and data in context. (Patton 1999: 1190-7). As observers of language and communication needs learners themselves but also language training organizers were asked (NA4), as for language education experience learners, language teachers and domain experts and managers were consulted (NA5). We have seen many needs analysis methods used as summarized in section 5.8. Needs analyses 4-7 have all involved more than one researcher. Methods and data have been reported separately for different contexts as reported in 4.6.

To avoid the danger of "a tendency to select data to fit the ideal conception (preconception) of the phenomenon" (Fielding & Fielding 1986) all the NA data bearing significance to the current LCPP has been analyzed, with two exceptions. The data of NA7 student feedback was discarded as too cryptic to render any new information, although originally meant to be included. Two degree programs evaluations of NA5 were also discarded, because the reporting of student/teacher cross-evaluation was contaminated with strong teacher interpretation and weak student voice, and therefore suspected student voice suppression.

As already pointed out the quality of analysis must be practiced such as testing rival explanations, dealing with negative cases (Patton 2008:1190-7). The evaluation of section 6 of LCPP construct relies on data, some of which is partly cryptic and not as full as for example detailed transcripts of discussions and observations would be. Especially interview logs of NA5 make it difficult to connect findings with potential causes, partly due to brief the nature of discussion logs and transcripts. Fortunately, qualitative inquiry is less concerned with cause-effect chains interdependencies between elements; this resulted in most practical implications for LCPP practice. The researcher recognizes that more observation of communication situations and their analysis is called for to gain deeper insights to interdependencies and cause-effect chains between elements.

As for conformability with other theories, the analysis of this study can be accused of being eclectic, selecting from theories of social studies, communication and applied linguistics what suits best for the findings, and overlooking applied linguistics and education paradigms. This argument can easily be rejected, because as a multidisciplinary research the study accepts all the chosen four disciplines and draws upon their strengths of interpretation of data. Theoretical frameworks derive from divergent intellectual and disciplinary traditions (Patton 1999: 1196). In this study the findings are interpreted into three main theoretical traditions, where language and communication studies bear relevance. I have linked the findings to the social studies and sociology framework by linking the findings with Candlin's theory of discourse as social action in the first place. To conform to the applied linguistics framework I have analyzed how findings are related to applied linguistics assumptions and fundamental premises, micro/macro focus of LCPP study. I have also linked the LCPP findings to the current language education paradigm put forward by Kohonen, which in fact shows alignment of findings with the language education paradigm.

The practical program theory of LCPP is the contribution of evaluation research method being used in this study. The eight principles on which LCPP can be shown to rely on conform greatly with the ESP theory paradigm of absolute and variable characteristics of ESP. The persisted intention has been to present both needs analysis methods and content of LCPP in "balanced reporting, justified conclusions, and impartial reporting" (Patton 1999:1195-7)

Credibility of the researcher

The researcher needs to establish her position by training, experience, track record, status and presentation of self (Patton 1999:1190). The Preface shows the main milestones of my professional career. Specifics of my researcher role in the process of each of the seven needs analyses is explicated in Section 4.6. It may be added that I started my university studies first in sociology, then in languages, and conducted my licentiate dissertation in the English language at Univeristy of Helsinki. My experience in company contexts as negotiator, head of department and training manager has contributed to understanding communication from a managerial point of view. My work experience with various groups of professionals from engineers, managers, journalists has given me valuable insight as to the content of LCPP. Working a university lecturer in Oulu and Jyväskylä in has shown me the side of science university emphasis besided my own studies five universities, one in Gothenburg, Sweden, four in Finland (Universities of Turku, Oulu, Helsinki and University of Technology), I also instruct and supervise Master's students in Industrial Management in my current work.

Researcher bias is to be avoided, as in all research, to secure the dependability of research. My efforts to avoid bias have been to include many stakeholders, researchers and informants to make not only my own voice heard, but the voices informants calling for practical holistic focus. My bias, though not intentionally put forward may be to slightly underestimate the contributions of applied linguistics and emphasize the contributions of social studies and communication. This can perhaps be accepted due to my emphases on the less observed points of views to language and communication.

A valid question concerning the reliability of the findings processed in the above manner relates to what extent an insider, with an emic perspective, can draw reliable classifications and constructs based on this data, and to what extent another interpreter could have inferred different conclusions. On recognizing this fact I have taken the choice to consult and receive regular feedback from professionals in the field, especially one colleague involved with four of the conducted needs analyses. Three other specialists in teacher education (two Finnish and one German) were consulted on a regular basis. Many redefinitions, insertions, deletions and re-interpretations have resulted from these discussions. I have taken a serious effort to see all the directions that the material has give rise to. Many topics appeared that were not at all expected to appear from the material, for example such as the principle of authorization and anchoring of language teachers – the existence of which on recognition is almost self evident, because of the frequent reorganizations of universities of applied sciences in their short history since 1990s. . Many interesting findings appeared that had to be left out of the scope of this analysis, for example delicate questions of testing, assessment and grading.

In Patton's terms the researcher also needs philosophical belief in the value of qualitative inquiry, inductive analysis, purposeful sampling, and holistic thinking (Patton 1999:1190). If not before, now is the time to state that qualitative inquiry provides far deeper insights and balanced views than mainly quantitative data, e.g. NA1. Purposeful sampling has been applied in NA3-7, and inductive analysis applied to the data of NA5-7. Perhaps the proof of the pudding is the eating.

Transferability of findings

Evaluation research as a 'socio-political process that is simultaneously diagnostic, change-oriented and educative for all parties' (Lincoln & Cuba 1985:141) is problematic in that it cannot establish cause-effect chains of interpretation, as opposed to interdependencies between elements occurring in the data. Efforts have been made to allow the rich data to speak for NA1-7 contexts, rather than generalize for other contexts. Unfortunately, a lot of quality data had to be excluded from the text, and consequently the power of evidence may be diminished. Hopefully some of the analyzed data - such as that related to examination and testing - can be published separately later.

There is an ontological problem in the use of the term LCPP. The program of LCPP is different in the NA1-3 company context, (NA4) and higher education context (NA5-7). LCPP is treated both as a theoretical construct and as a practical program for education and training contexts. I have made an effort to define LCPP by placing it in a disciplinary context, defining its characteristics, and by theorizing the concept separately for each of the contexts before merging the views into one. This dichotomy illustrates the close connection of theory and practice, and in fact demonstrates that LCPP is practice-driven, and close to contextual implementations in education. However, the focus of this study is not on education itself, but rather on constructing an understanding of LCPP. This is why the title of the study says nothing about education or training, neither do the research questions.

Efforts have been made to conduct the whole study with "intellectual rigor and professional integrity" (Patton 1999: 1205). In this multimethod qualitative study methodology may seem to appear as very complicated structure - and so it, with all the needs analyses that were never designed to be part of a dissertation, but rather serve the practical needs of LCPP of that day and age. Patton quotes Percy Bridgeman, a Nobel Prize winning physicist: "There is no scientific method as such, but the vital feature of a scientists' procedure has been merely to do his utmost with his mind, no holds barred" (Patton 1999: 1205). Based on the above argumentation I have a reason to believe that the credibility, transferability and conformability requirements have been met in this study.

7.7 Suggestions for Further Development in LCPP

This study has shown that LCPP is a practice and a research field that has its own context and elements distinct from the practice of ESP, on which it relies. It seems that further understanding of LCPP needs an increasing research input from social sciences and anthropology, including group interaction and intercultural communication studies, since the focus of applied linguistics is centered around the discourse levels of speech acts and communicative events at the broadest, and not much on professional discourse communities or communication practices in their cultures.

Further Study in Needs Analysis Methods

As for needs analysis methods – to return to the first research question – it is necessary to conduct further experiments on the usefulness of professional profiles and similar tools developed for a better understanding of the object of language needs. Large-scale quantitative language needs methodology must also be developed to replace the haphazard needs analysis practice of measuring slightly different variables at different points of time, thereby losing the precious benefit of being able to make inferences about the development of language needs longitudinally. This establishment of quantitative language needs measurement is necessary for the evaluation of language needs in business and industry at determined intervals. The other point concerns language testing and the measurement of the current language resource. So far, estimates of the current language resource have been made based on respondent self evaluations (Huhta 1999; Mehtäläinen 1987a, 1987b,1989) on a scale of 0-5 or 0-6, or on discrete element testing, both workable approximations. Self evaluations, however, can be affected by respondent self esteem (or lack of same) and many other factors such as background knowledge and analytical skills. Discrete element testing can mainly test identified linguistic and discourse features, overlooking other important elements of communication such as body language, communication strategies and overall knowledge of the subject matter. Therefore, new methods of authentic testing such as portfolios needs to be developed to identify a more holistic approximation of the language skills resource, such as the European portfolio (Kohonen 2002). The two variables mentioned above – language needs and the language resource base – are necessary for making adequate judgments of national language policy planning in a longitudinal perspective.

Further Study on LCPP

As for the second research question concerning the content of LCPP, there are several prospects for research and practical experimentation.

Concerning the language training organization perspective, we do not know the current language service provider market in Finland, nor do we know the state of organization of language training in companies. We can only guess that it is mostly outsourced to language training companies, as their number has grown from 20-30 in 1994 to nearly 200 in 2008 (Statistics Finland 2008). We can also guess that the quality varies significantly between language service providers from well-established competence centers to mass production service providers, who employ native newcomers as ‘professionals’ at low pay and sell them at market price. It is difficult for corporate customers to know the difference between marketing messages and language training reality. We have seen that many details can go wrong in the design of a language program even if the language provider has designed a language program in the best possible way. No standardization and accreditation body has yet determined the professional requirements for ethical language training or quality standards for language training and auditing.

In the future there is a need 1) to conduct a market survey of the language training market in Finland and find out about the range of services offered in this field. This would help all companies who need to use language and communication services to promote their international performance. Secondly, no survey has been conducted in the present decade on how language training is organized in companies. There is another need 2) to conduct a corporate study on language training in companies. This will benefit company employees as learners and HR departments and customers as buyers to understand current LCPP needs and their structure and to prepare service offerings that are well placed and effective and serve the market need.

From the teaching perspective, there are current and future needs for (1) teacher education for teaching languages for professional purposes and (2) updating LCPP teachers’ knowledge and neither of these is specifically catered for by the Finnish national education system, as LCPP teachers are either non-categorized or categorized under general education.

Also concerning the teacher perspective, the present study excluded any considerations of teaching methods and their appropriateness for LCPP. This is a dimension where experimentations with LCPP and detailed evaluation reports of implementations are scarce and would be very welcome. There are numerous approaches that look promising from the LCPP point of view. Content-based language teaching gives primary emphasis to learning content, language functioning as a by-product of the learning (Met 2004). It is regarded as the most appropriate for ESP (Johns) along with Task-based Instruction (Ellis 2003:2-8) and Genre-based Teaching (Routledge Encyclopedia 2004:234), Contents and Language Integrated Language Learning (Nikula & Marsh 1997:6-8) and language immersion (Swain 1996). For lower level language skills, Action-based Teaching (van Lier 2007) and Experiential language learning (Kohonen 2001:55-56) should be studied more with reference to their applicability to LCPP. Many of the above teaching approaches encourage learner autonomy (Kohonen 2001; Rebenius 2007), which is an important development trend that needs to be studied further, as expressed by learners in the evaluation of this study.

One important factor that came up in the evaluation is that of intercultural communication, which has not found an established location, status, or form in LCPP. It has remained an extra but always existing point in all the seven needs analyses of this study. In the first three needs analyses, shortage of cultural understanding was the third most important weakness of language skills (Huhta 1997:159) cited in the open-ended replies. In NA4, personnel managers mentioned a shortage of intercultural skills as the third most important weakness of language skills, after oral interaction problems and knowing too few languages (Huhta 1999:83). Employers mentioned a shortage of intercultural skills as the second most severe weakness of language skills (Huhta 1999:81). In NA5, some good examples of intercultural communication learning were taken up by both teachers and learners, but more respondents indicated that such activity did not exist or was replaced by some unsatisfactory arrangement such as restaurant customs in L1. The European overall mission is to be a pluricultural and plurilingual community, with respect for cultural and linguistic diversity (Guide to Language Policies 2003). However, the Common Framework of Reference for Languages, CEFR (Section 3.3) does not mention or discuss solutions for intercultural communication integration in language teaching at all. Therefore this area of intercultural communication inclusion in language education should urgently be examined further in LCPP. Research in intercultural communication is flourishing, but examples of integration with ESP or LCPP are hard to find, never mind good practice procedures. Some studies in the context of UASs have been conducted (Korhonen 2002) or are in progress to bridge this gap.

As for the principles of good practice LCPP education, there are two principles that require further study, one from the learner angle (the principle of autonomy and agency) and another from the teacher angle (the principle of authorization and anchoring, discussed in 6.4). It is a common cliché in education theory that learners are autonomous and the teacher a guide by their side. The learner experiences of NA5 show that the theory has not yet helped the learner become the focus of learning or to experience his or her potential influence to on the implementation of teaching. Therefore this aspect needs further study.

The aspect of authorization and anchoring for language teachers is a difficult one. Language teaching for professional purposes is a turbulent business where long term job contracts are scarce; yet organizations expect high quality tailored courses with little or no planning resources. Few like to enter a field as uncertain as this, and those who do may have unduly rosy expectations. Organizations such as universities of applied sciences offer jobs to about 1,000 teachers, but organizational solutions often disperse language teachers to different locations, and conjoint development activity can be complicated, or even hampered.

Finally, coming back to Candlin's model (2005) of the ontology of professional discourse, we find that language teaching, built on applied linguistics, still falls far short of understanding the quality of communication at workplaces. LCPP language teachers may master the main genres used and understand the crucial sites of communication, and possibly the main aims of the communication. But while the know-how about interdiscursivity at the workplace and its complexity is recognized, it is far from being explicated in research terms or applied in LCPP practice. Questions open up as to recognizing competing identities of taking choices in communication between institutional, professional and personal interests or roles (Sarangi & Roberts 1999) and managing 'boundary collapse' between the different roles (Iedema 2005). This aspect has been studied in medicine (Hindmarh & Pilnick 2002; Candlin & Maley 1997) but not much in engineering, business or industry. In communicative action, discourse has multimodality and multisemiocity (Scollon 2001; Ventola et al 2002; O'Halloran 2004), the many ways and many meanings of different people and their different interpretations. In language education, these matters tend to go overlooked since there is so much else to be dealt with; perhaps the knowledge base also needs to be consolidated. Moreover, new knowledge is needed on the practices in front stage and back stage communication (Goffman 1959) happening in the environments of industry and business. The inter-institutional themes and practices around which communication takes place (Candlin & Sarangi 2006) need to be examined more closely.

The linguistic background of language teachers makes it very difficult to avoid "linguistic instrumentalism" (Clark 1997; Iedema 2005). Work needs to be brought back in, with all of its social complexity, as in the efforts of the LCPP communities who initiated the needs analyses with focus on communication situations, and their contextual and social community descriptions, starting with Prolang 1999. The progression of needs analysis practice, exhibited in this study, shows that systematic analysis generates know-how as to how needs analysis methods can be used creatively and how insights of the contents of Professional Communication can be constructed. A theory of LCPP, reliant on key stakeholders, has been suggested, and more directions for development discovered. The proposed suggestions can be consolidated only if the theory works for the benefit of professional communication use in business and industry. This remains to be seen.

Further Study on National Language Program Policy Making

Practical measures have already been proposed in 7.4.3 for language program policy research and theory has been proposed for constructing future theory on societal needs, rather than historical tradition. As it belongs to the nature of evaluation research to propose practical action, a few more points can be added.

The first step in language program policy re-evaluation is the establishment of a national body that possesses the authority and resources to prepare a plan for re-evaluation of language program policy. As has been demonstrated previously, the plan should be based on a structured, multi-stakeholder evaluation of the status quo, and a systematic measurement of societal language and communication needs in various societal fields. This body would propose a changed language program policy to authorities subjected to Parliament decisions.

As for the understanding of LCPP constructed in this study, we may draw upon Carol Weiss's concept of enlightenment. She uses this term to describe the evaluation findings being disseminated to the larger community "where they have a chance to affect the terms of debate, the language in which it is conducted, and the ideas that are considered relevant in the resolution" (Weiss 1990:176). She continues:

> *Generalizations from evaluation can percolate into the stock of knowledge that participants draw on. Empirical research has confirmed this… Decision makers indicate a strong belief that they are influenced by the ideas and arguments that have their origins in research and evaluation. Case studies of evaluations and decisions tend to show that generalizations and ideas that come from research and evaluation help shape the development of policy. The phenomenon has come to be known as "enlightenment".., an engaging idea. The image of evaluation as increasing the wattage of light in the policy arena brings joy to the hearts of evaluators. (Weiss 1990:176-177)*

The poetic nature of "bringing joy to the hearts of evaluators" may be a little far fetched in LCPP language training and education, but it is well suited to the process of searching for engaging ideas – and an expanded theory base – for an emerging professional practice in LCPP from the perspective of its societal stakeholders. This may have become a major underpinning and yield of this study.

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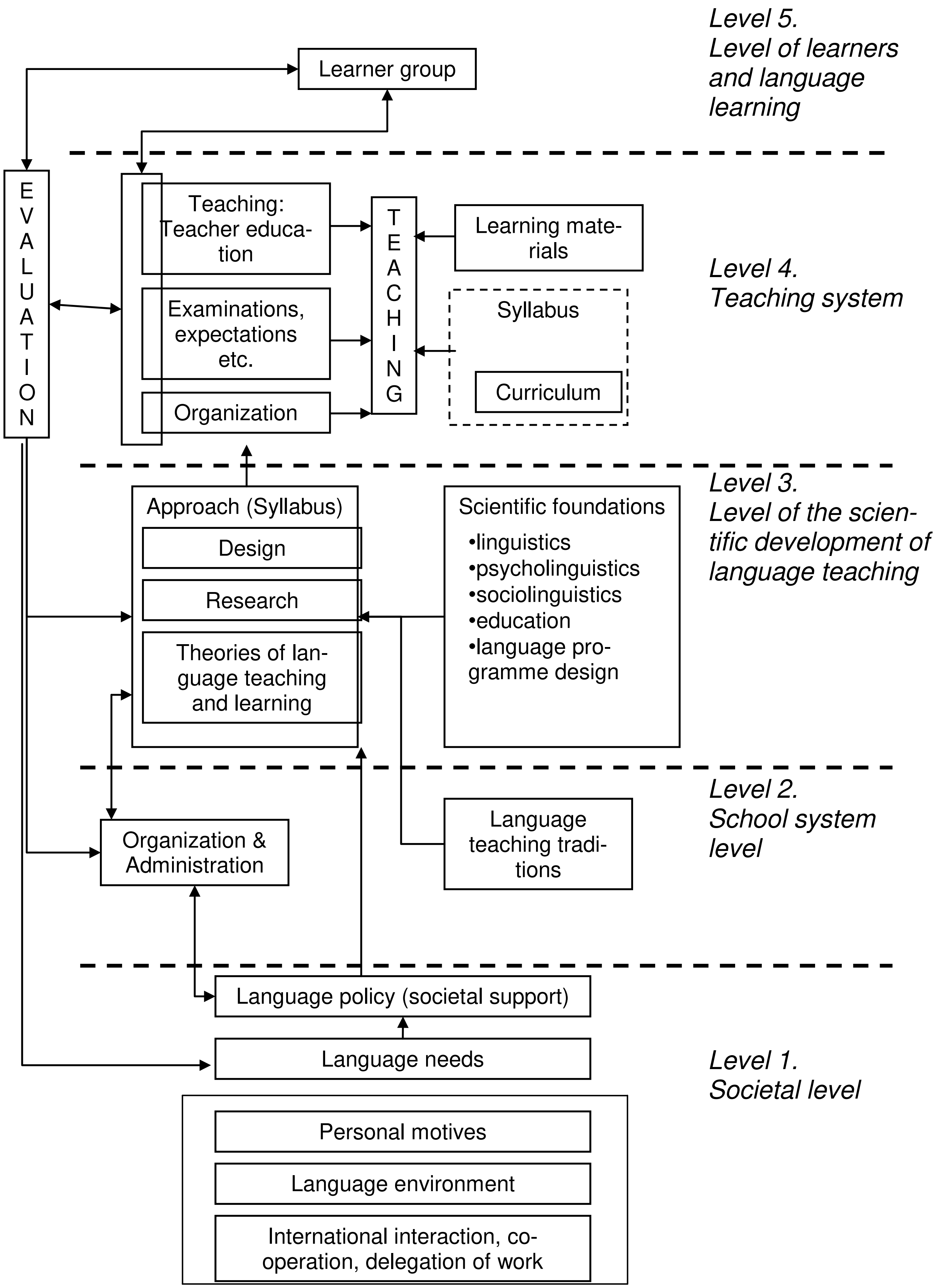
APPENDIX 1. The Takala model of language program policy planning (Takala 1979).



APPENDIX 2. Milestones of Finnish Language Program Policy.

Milestone	Description	Intended impact
General language education Kieliohjelmakomitea 1976 - 1978./ Language programme committee. (Detailed in Piri 118 - 144) Language programme for general education 1984 KIEPO 2007, Future language education - final report for language education policy project.	Qualitative and quantitative obejctives set for Swedish, Finnish, English, German, French and Russian to be materialized in 2010-2030. Eight (A-H) optional solutions considered Kieliohjelmakomitean mietintö: 157-165) Diversification of languages Better linking of comprehensive and secondary levels and expanded A-language to Swedish, German, French and Russian Facing future challenges: - globalization and international contacts - weakening position on less widely taught languages - significant weakening of skills in Swedish - no-one in charge of language policy and language education policy (Sajavaara 2006)	Since the introduction of the comprehensive school system 2 languages were defined as obligatory for all pupils. Diversification of language program -securing plurilingualism - measures suggested for all levels of language learning: early language learning, primary and secondary education; higher level education; adult education and work life language training - proposal for reform of language education program (five options A-E presented in the report)
Europe external cultures and languages 1984-1986 (Komiteanmietintö 1986:1) Follow-up committee (Työryhmänmuistio 1989:65)	Recognition of plurilingualism and necessity of support to teaching and research of less widely taught languages (LWULT)	Support to research of cultures and languages and increase of the teaching Limited resources caused by depression identified by follow-up committee
Planning for European national languages and cultures 1989-1991, excluding English, French, German and Russian. (Komiteanmietintö 1991).	Since the recognition of Europe external language and cultures the focus was set on European languages not included in the national curriculum for the comprehensive school.	Strenghten Spanish and Italian in primary and secondary education. Limitations of optional language selection to be abolished. (PA 176/25.1.1991) and thus language selection in the secondary school system expanded.
Language program in science universi-	Since establishment of language centers and inclusion of language in	Secure the 1. language skills required of an authority in a biligual

ties (beyond major studies in languages) - establishing of language centers in the 1970's; - translator education into universities in 1980 - obligatory inclusion of the second national language since the end of 1970's; - inclusion of 1-2 obligatory foreign languages in all university syllabi (Sajavaara 1989:91-100[i]; Carlsson 1995)[ii]	science university curricula, language centers experienced constant resource shortage. The 1995 was set up to create proposals for effective organization of language education and service offering. Less supply of LWULT language compared to 1995 (Huhta 2003)[iii]	country and 2. language skills needed to thrive in professional life. The 1995 report proposed significant additions to the resources (and posts) of language centers in view of promoting the teaching of European and Europe-external languages.
Language program at universities of applied sciences (UASs) - experimentation since 1991 - permanent establishment in 1995 - language teaching organized by the UAS autonomy: either as language centers or integrated in the operational units	The requirements are the same as in science universities: the second national language and 1-2 foreign languages depending on field. Ministry of Education survey on language teaching in UASs (Sajavaara 1999) The ARENE language committee 2001 Two surveys to examine to what extent the committee's proposals have been taken. Evaluation of language teaching in a number of UASs 2000, 2002	Languages introduced in the curriculum since the beginning, statuted as follows: "such written and oral skills as are needed for the profession and professional development in the field." (Polytechnic Decree 352/2003, §8)
Language program in vocational secondary education - Development program for secondary education 1985-87 - Reform for secondary language education 1994 - Evaluation of lan-	The 1979 language committee guide lined that language teaching in vocational education could not be extensive as to interfere with vocational education subjects: therefore not included in the curriculum. Secondary education reform 1985 introduced a decision concerning all basic orientations, with exemptions for technical and other orientations	The current requirement includes 1-2 credit units of the second national language and 2 credit units of foreign language (generally English)

[i] Sajavaara, K. (1998) Kielikoulutus yliopisto-opinnoissa. In Takala, S. & Sajavaara, K. Kielikoulutus Suomessa. Jyväskylän yliopisto/Soveltavan kielentutkimuksen keskus. Jyväskylä: Jyväskylän yliopistopaino.
[ii] Carlsson, L.(1995) Ammattien kielet ja kielten ammatit. Selvityksiä ja ehdotuksia korkeakoulujen kieltenopetuksen järjestämisestä. OPM. Koulutus- ja tiedepolitiikan linjan julkaisuja. Helsinki: Opetusministeriö.
[iii] Huhta, M. (2003) Eurooppalaisen Suomen kielipolitiikka. *Kanava* 1/2003

guage education in 1998 (Väyrynen 1998: 11-15)[iv]	(Ammattikasvatushallitus 1985) Goals for the year 2000: 40-100%, study 2 languages depending on field.	

[iv] Väyrynen, P., Räisänen, A., Geber, E., Koski, L. & Pernu, M-L. (1998) Kieliäkö ammatissa? - Ammatillisten oppilaitosten kieltenopetuksen nykytila ja kehittämistarpeet. Helsinki: Opetushallitus.

APPENDIX 3. Overview of Needs Analyses 1-7.

Title of needs analyses	Methods / research design	Target group	Sample	Publication and financing information
Needs Analysis 1. Tehostuvan kielikoulutuksen tutkimus 1989 (More effective language training)	**Questionnaire survey** to training coordinators/ personnel managers. Qualitative questionnaire survey.	**100 largest exporting and importing firms** in Finland (based on Tullihallitus statistics 1986)	60 respondents Response rate 24%	Unpublished. Huhta, M. (1990)Tehostuvan kielikoulutuksen tutkimus. Internal report. Partially funded by Fintra
Needs Analysis 2. Yritysten kielitaito-varanto ja sen kehittäminen 1994 (Corporate language resources and their development)	**Questionnaire survey** to personnel manager or training coordinator. Qualitative questionnaire survey.	**Largest exporting and importing companies** (based on Tullihallitus statistics 1992)	54 respondents Response rate 37%	Published by Fintra; Huhta, M. (1994) *Yritysten kielitaitovaranto ja sen kehittäminen.* Helsinki: Fintra. Partially funded by Fintra and Teollisuuden keskusliitto (currently Teollisuus ja työnantajat)
Needs Analysis 3. The Dynamics of Language Training 1997	- The **surveys of NA1 and NA2** - **interviews** with training coordinators - Two **case studies:** Document analysis, interviews.	**Globalizing companies in the South of Finland**	8 training managers interviewed; 2 case companies studied; Language training analysed.	Huhta, M. (1997) *The Dynamics of Language Training - from an Element of Cost into and Investment in Communication.* Helsinki: National Board of Education Partial funding by the Finnish Cultural Foundation.
Needs Analysis 4. Language/Communication in Industry and Business, Prolang 1999	**- Questionnaire survey** to employees; **- Interviews** with personnel managers representative	**Companies throughout Finland** 75% from Southern and Western Finland representing major industries	Personnel managers n=69 Employees n=197 of 69 companies Fieldwork by 20 language teachers	Huhta, M. (1999). *Language/Communication Skills in Business and Industry.* Helsinki:National Board of Education. http://www.edu.fi/julkaisut/skills42.pdf Funding by the National Board of Education and Stadia.
Needs Analysis 5. COP-Stadia kielten-opetuksen arviointi 2001-02 (COP-Stadia - Evaluation of Language Education 2001-02)	- **Self evaluation** by degree programme, including teacher portfolios - **internal** and **external evaluation**	**Language education** provided by two polytechnics, Stadia and Central Ostrobothnia University of Applied Sciences	Stadia+COP =currently COU Central Ostrobothnia UAS: -16 +17 language teachers -13 + 13 programme managers, subject specialists -160 + 85 students	Löfström, E. et al *Ammattikorkeakoulujen kieltenopetus tienhaarassa - Kieltenopetuksen arviointi Helsingin ja Keski-Pohjanmaan ammattikorkeakouluissa.* Korkeakoulujen arviointineuvoston julkaisuja15:2002. Helsinki: Edita. Funded by Stadia, Central Ostrobothnia Polytechnic and Finnish Higher Education Evaluation Council.

Needs Analysis 6. COP-Stadia Field-specific Frameworks of Reference 2004-06	- document analysis, - interviews, - observation; - processing the CEFR knowledge and needs analyses results into a Professional Framework of Reference - experimenting the use of Tool in practical teaching.	language needs of 14 degree programmes in business (3), culture (1), social services and health care (5) and technology (5).	Interviews by 16 language teachers with substance informants, document analysis 4 fields. Interviews per framework 3-5.	Published and funded by Stadia and Central Ostrobothnia Polytechnic. Huhta, M., Johnson, E. Lax, U. and Hantula, S. (2006) *Työelämän kieli- ja viestintätaito* Helsinki: Yliopistopaino. Helsingin ammattikorkeakoulu.
Needs Analysis 7. CEF Professional 2005 - 07	- document analysis, - interviews - observation; - processing the Frameworks of Reference Tool to the CEF Professional Profile - experimenting the use of Profiles in practical teaching	11 professional profiles in fields of technology (4), business (4), law (1) and health care (2), totally 11 profiles.	Interviews with professionals, alumni, adult students, observation, document analysis. Teacher-researchers in six countries. 35 interviews in the material re-evaluated in this study for 6 profiles.	*Published as:* *The CEF Professional Website Handbook* (2007). www.cefpro.org Funded by EU, Leonardo da Vinci programme and Stadia. Huhta, M., Johnson, E., Vogt, K. and Tulkki, H. *'The ESP Handbook'* by Cambridge University Press (forthcoming)

APPENDIX 4. Interview Questions for NA3.

5.10.1994

(Translated from Finnish 2009)

1. **Respondent background**
- background before entering language taining
- experience in teaching? Languages?
- vision about language training: what has been reached, what should be aimed for, what can be achieved
- how do you experience language training as part of your job profile?

2. **Company**
- mission, vision and operations
- when export and international operations initiated
- personnel: % of educational background (rough estimates) Future recruitment predictions concerning educational background: increase/decrease of educational backgrounds
- competence areas where training needs occur
- % of personnel who need languages for contacts in foregin languages
- frequency of foregin language needs at export departments,/production, different departments
- to what extent internationalization has had an impact on language traininng? How?
- How is language training organized in differnet units?
- Management attitude to language development
- How is management attitude visible in trainnig budgets?
- Is some change expected in management approach?

3. **Language Needs**
- Which languages are the most important? Earlier) In the future?
- Why is the need for English greatest, though the level is highest in English?
- How has language need changed?
- Direction within the next 10 years? (the current order is: ENG, SWE, GER, FRE, SPA, RUS)
- How does the change show currently in your company?
- What kind of communication vkills your company appreciates?
- To what extent have you obseved language use by your personnel?
- Based on the January survey in compnies the most important problems were experienced as: passivity in oral interactions, presentations, cultural awareness, knowling too few languages, mistakes. professional terminology. How is the situation in your company?
- How could the skills be promoted?
- Is it true that your personnel know too few languages?
- How many languages does a marketing person, MSc, Bsc, technician engineer need?
- Is one foregin language suffient for some oepole?
- How significant are language errors? Problems of proninciation?
- What influence can language training have?
- What are the limitations of language training (from perspectives of company, learner, language training organizer)

4. Language courses

- What language courses are you organizing this year? Contents emphasis?
- How many participant will take part?
- How has your language training offerind changed over 3/5 years?
- What changes do you predict for 3/5 years?
- What kind of course in good from the perspective of organizer, learner, management?
- What siginficance do these aspects have? 1. course type 2. objective 3. target group 4 group size 5. study material 6. attendence 7. learning results 8. teacher 9. price of the course?

5. Effectiveness Factors

- What have been some positive measures during your own time that have made language training more effective?
- What impact didi recession have on language training?
- Where should the emphaiss be withing the next few years? long-term planning? more languages? preparation of company-specific material? self study methods? more use of technology (PC, video conferencing, email etc)? diagnostic and final testing? more monitoring of activity? teacher training? selection of teachers?

(From Huhta 1997: 232 in Finnish)

APPENDIX 5. Evaluation of Language Education NA5 - Parts A, C and D.

(Translated from Finnish by Huhta in 2009)

Degree program/field:
____
Language teachers and degree program coordinators or managers evaluate.
Evaluation time
11/2001 - 28/2/2002________________________ Date:_______________
Names of evaluators in the degree program team_________________________
____
Language teachers:____
Degree program coordinators, managers and domain experts/ professional subject teachers:
____

A. Organization, resources and their use for language education

1. Who decide over language teaching resources? Which information is this based on? What are the strengths and weaknesses) [Teaching resources here refer to contact hours of language teaching, planning, resources, facilites and equipment]
2. How are the language resources of the degree program determined? To what extent is the resourcing based on standard praactices or current esitmates of need? How are reseources sufficient in respect to needs?
3. How is the language teachers' teaching/ work/ other work distribution decided? Is the system functional? (strengths/weaknesses)
4. What is the extent of obligatory language studies? Optional language offering? How clearly is the extent of studies given in creadits and contact hours in the curriculum/and course descriptions ?
5. What is the extent of obligatory studies? Optional studies in languages? How are student/teacher views taken into account in the timing?
6. What are the room and equipment facilities? Are they appropriate and sufficient? Which budget covers these investments? To what extent are facilities sufficient?
7. Are students learning and teachers teaching other work relevant skills and competences? How? How should this be?
8. Do the contets and actions of language education support the internationalization objectives of the organization? How?
9. How is information about languag education processes distributed?) [This includes for example general information, enrollment, assessment and grading and grading results] Does the system function well? (strengths/weaknesses)

B. (given in appendix 6 - students and language teachers reply first separately, then in cross evaluation)

C. Development of language education

1. Which are the necessary stakeholders in collaboration? What is their role in this development? How does this show in teaching? Could it be seen more clearly? How? (give cases or examples)
2. What else besides language education supports language learning and communication skills improvement? (material in foreign languages, traineeship abroad…) How goal-oriented and systematic is their use? Which other means have perhaps not been utilized? (give cases or examples)

3. How lang languag education been developed so far? What are some of the results) (give cases or examples)
4. To what direction and how should the development progress? (give cases or examples)
5. From where and how fdo you receive evalaution data? How are feedback systems developed? (give cases or examples)
6. How are the reluts of evaluations utilized in degree programs, courses, teaching and learning? (give cases or examples)

D. Professional competence building of language teachers

1. What are the recruitment criteria for language teachers? To what extent this is a good/ bad practice?
2. How has the language teachers' special expertise been utilized in the working community? How is this done in practice?
3. How does a new language teacher get introduced to a degree program, its curriculum, its professional terminology, methods? Is the system functional? (strengths/weaknesses)
4. What is the job profile and work load of a language teacher? In what way do they promote/not promote quality teaching and development?
5. How have language teachers networked between themselves, collaborate and function as team members? How has this been achieved so far? How do the reluts show in practice?

(Translated from Huhta 1997: 232)

APPENDIX 6. Evaluation of Language Education NA5 - Part B.

(Translated from Finnish by Huhta in 2009)

The management group recommends cross evaluation. This means that language teachers and a group of students first conduct the evaluation separately. This is followed by a joint discussion, where the group of language teachers and students together form a common understanding.

Degree program/field:____
Evaluation time 11/2001 - 28/2/2002___________________________________
Date:________________________
For student evaluation fill in questions 1-4.
1. Students of which degree program: _______________________________________
2. Which specialization: ____
3. Names of students (an appendix if needed):____
____
4. Find out which obligatory courses the participating students have taken before the evaluation:
____
____

For teachers fill in questions 5-6.
5. Evaluating team for the degree program of ________________________________
6. Names of evaluating language teachers:_______________________________________
____

B. Contents, implementation and organization of language education

Students and language teachers evaluate

1. What principles and processes are used to select and decide on the contents of teaching? How does this process work? What are its strengths and weaknesses?
2. What principles and processes are used for choosing and deciding on the implementation of teaching? How does this process work? What are its strengths and weaknesses?
3. To what extent does the content of language teaching meet the competences needed in the working life? Could contents be developed? If yes, how?
4. At what stage of studies are language courses implemented? Is the timing appropriate? Should it be changed? If yes, how and why?
5. Where is information about courses their contents and requirements available? (e.g. general information, enrolment, assessment) Is the system functional? How could this current system be improved?
6. How is the students' initial level in language diagnosed? How is the diagnosed level considered in the organization of teaching? Do those students weaker in languages get a fair chance to reach the target level? Does the system function well? How could the system be improved?
7. How are the students' work and study backgrounds taken into account in contents and methods? Does the system function well? How could this current system be improved?
8. How are the students' future career and study plans taken into account in teaching? Does the system function well? How could this current system be improved?

9. Which of the current implementation methods arouse, support and sustain learning motivation during and after studies? How could the implementations be improved?
10. How workplace-orientated or practical are the implementations of language teaching? How could the implementations be improved?
11. What is the current learning atmosphere (the mental learning environment) like? Which factors promote learning? Which factors have a negative impact on learning?
12. What is the physical learning environment like (e.g. facilities in relation to group size)? Are the facilities appropriate? How could the learning environment be improved?
13. HW is student assessment implemented? What is the oral and written part of the assessment? How are intercultural awareness competences evaluated? How does transparency and uniformity show in student assessment? How could the assessment system be improved?
14. How do students utilize the evaluation or feedback they receive? Are students encouraged to evaluate their own and their peers' learning? How could this be developed?

(Translated from Löfström et al. 2002:76-77)

APPENDIX 7. Portfolio questions. NA5.

TEACHER PORTFOLIO - Needs Analysis 5.
Language teaching evaluation COP-Stadia 15.2.2002

Creating teacher portfolios is part of our language teaching evaluation. The objective of documentation is to reflect upon the teacher's own professional identity and competence areas. This allows the organizations to gain an overview of language teachers' professional expertise, development aspirations and training needs.

The questions are broadly based on a questionnaire by the Finnish Union of University Researchers and Teachers (FUURT), adapted for the purpose by the language teachers of the two organizations and the external evaluators of COP-Stadia evaluation.

The data is confidential; the external evaluation team will only receive an institution-based summary.

Reply to the questions and send your response as an email attachment by March 6 to Esko esko.johnson@cop.fi (COP) or Marjatta marjatta.huhta@stadia (Stadia).

Name

Email address

1. Teaching philosophy and ethics

What is my understanding of language learning and teaching, learner role and knowledge? What are the aims that I reach with my teaching? How do my principles show in teaching practice? How do I understand the student's role in the learning/teaching situation?

2. Teaching background, teaching and guidance experience

Where, when and to who did I teach? (Documented in question 6 in more detail) Why did I become a teacher? How and why I have become the teacher I am at this moment? Which specialization areas in language teaching I am interested in and why?

3. Pedagogical activity and development of teaching

3.1 Participation in curriculum design and assessment, teaching experiments. Project and reporting

3.2 Projects I have participated in during the past three years

4. Social and societal impact

Contacts with the working life, popularization of science, functioning as an expert. PR, alumni and social relations. Elected representative positions, memberships in committees and working groups, scholarships.

5. Produced learning material, (pedagogical) publications, research, articles and presentations.

6. Background information: education and teacher experience

6.1 In this organization I work as a

[_] lecturer
[_] principal lecturer
[_] full time instructor
[_] part time instructor
[_] some other position: which?

6.2 Degree/s completed: year of graduation, subjects of the degree

6.3 Teacher education: year of completion

6.4 During my career I have taught the following languages and subjects:

6.5 The degree programs I have taught during the past three years:

6.6 My favourite subject/s/degree program (subject/degree program/ other work)

6.7 My earlier teaching background (institution/s)

6.8 Self assessment of my current work, its contents, its conditions and my possibilities to influence my work

6.9 Self assessment of the education I have: to what extent did it prepare me for my current work?

7. Other work experience besides teaching, experience abroad and travel

7.1 Other work experience in the home country (organization, location, time in years or months, assignment)

7.2 Work or study abroad (location, time in years or months, assignment)

7.3 Travel during the past 3 years

8. Complementary courses, further education and other professional skills required

8.1 The most important complementary courses and studies

8.2 Courses I have participated in the past three years

8.3 Computer skills such as Office tools, Internet skills, learning platforms such as WebCT

8.4 Other competences, other skills

9. Training or further education needs
What kind of training do I need for upgrading my professional skills? (For example complementation of my current degree, postgraduate degree, complementary courses, language skills in specialized fields, workplace communication, my own language skills, pedagogical skills, computer skills, work placements, courses abroad) NB: Place the primary training need under Training need 1)

Training need 1:

Training need 2:

Training need 3:

10. Future

10.1 How do I wish to develop my professional skills? Do I have interest in research? Areas of interest? Interest in material development projects? Which kind?

10.2 What are my interests in the internal development of the organization? (e.g. tutoring, recruitment, language instruction of Theses in English, workplace contacts, student administration or guidance, translation etc.)

11. Comments and improvement suggestions

Measures that support me as a language instructor. Measures that could help students to gain better language skills. Other points excleded from the above questions.

[Translated by the writer]

APPENDIX 8. Professional framework of reference questionnaire. NA6.

COP-STADIA: CENTRAL OSTROBOTHNIA POLYTECHNIC AND HELSINKI POLYTECHNIC STADIA

PROFESSIONAL FRAMEWORK OF REFERENCE

Field	Technology	**Language**	English
Degree Programme	Information Technology	**Language teacher**	Marjatta Huhta marjatta.huhta@stadia.fi
Specialisation option	Software Engineering		
Degree	Bachelor of Engineering	**Description written**	Marjatta Huhta 20th April 2004, 15th January 2005 The chosen core content for the course implementation **C**

A) BACKGROUND TO THE PROFESSIONAL FIELD (common for all languages)

Examples of professions	Software designer Customer support and customer collaboration Company administration and managerial tasks Production tasks Management Purchasing Sales support
Examples of work places	TietoEnator, VMData, Ericsson, Nokia, DNA, Radiolinja; IT units in companies or in public administration (cities, municipalities, state and their organisations)
Duties which are typical for the profession	Expert contacts Customer contacts: project follow-up, feedback discussions, finding solutions; Programming Discussions on technical specifications with the customer Project planning; Projects; representing and explaining alternative models; project follow-up;Testing, reporting and handling the feedback; Fault detection and fault analysis
Additional information: (person, organisation etc. and phone number)	Kari Björn, Head of Degree Programme; Kari Järvi, Principal Lecturer, Simo Silander, Senior Lecturer Juhani Rajamäki, Senior Lecturer, Stadia
Writer's estimation on how much English/Swedish is needed in profession	

B) LANGUAGE-SPECIFIC DESCRIPTION (English)

1. Definition of the context of language use

	LOCATION	COLLABORATIVE PARTNERS: persons, communities, enterprises, institutions	LANGUAGE/ COMMUNICATION SITUATIONS	TEXTS
Study	Language centre's teaching facilities and language laboratories, computer classrooms Practical training in Finland or abroad In excursions, the premises of the enterprise Fairs and conferences of the field	**Educational:** teachers of the polytechnic, international visitors and lecturers, exchange students and trainees **Private:** applying for a job or for practical training	- Reading articles, learning material and online material in a foreign language **C** - Interaction **C** in class - Communication with international students - Writing applications for practical training and for student exchange - Making notes - Reporting **C** - Describing the strengths and weaknesses of one's own persona **C**; family relations, residence	**Text types:** - summary **C** (educational background, work experience) - e-mail - presentation **C** - CV - job interview **C** - notes - report **C** - abstract **C**
Work DOMAINS - Fields of life/ of language use, in which the graduate communicates (public, private, professional, educational), CEF pp. 80-85	Working facilities provided by the employer; negotiation facilities Production facilities Premises of the customer or collaborative partner Fairs, conferences, in customer contacts also e.g. restaurants, hotels, premises in the travel destination	**Professional:** appliance suppliers, software enterprises, service deliverers (= enterprises of all fields, cities, municipalities, associations and related organisations); offices of a multinational enterprise in Finland and abroad in the different fields of industry and business; trade union **Public:** bodies of standardisation and other experts who produce regulations, directives and standards	Operating in English in the working community a. by exploiting knowledge on English information sources , such as manuals, Internet sources, instructions and documents; **C** b. by communicating by e-mail and through the Internet; c. by handling things by phone; d. by taking care of expert and customer contacts face-to-face in meetings **C**, seminars, fairs	- Description or summary (company presentation **C**, product presentation, process) - letter (offer **C**, reply) - dialogue (phone call: enquiry, fault detection, feedback, timetable verification) - interactive situation **C** (fairs, meeting **C**, interview **C**, negotiation **C**, process description **C**) - article, web page, marketing text and text criticism **C** - presentation (technical presentation, presentation of a plan)

B) LANGUAGE-SPECIFIC DESCRIPTION (English)

2. Goals, materials, methods and assessment

Goals of language studies (Software engineering)	Versatile language and communication skills for operating in international environments, understanding the cultural starting points of different parties. The engineers - understand the significance of communication to the profitability of the company's operation **C** - know the different types of messages and their discourse/stylistic features and their proper applications **C** - can acquire information on the texts of the professional field and can sort it into e.g. a report - can describe their technical skills and know-how - can communicate about different professional fields, enterprises, organisations **C** and their software needs - can interpret and write business letters **C** - can interpret and write e-mails, and interpret and make web pages - know the discourse of communication on the phone and use the phone naturally - can represent a company **C** - are able to operate as an information acquirer and giver at fairs - can describe operational processes interactively **C** - can apply for a job (CV, interviews) **C** - can make a project presentation and report, and the abstract of a research project - know the difference of meetings and negotiations and can operate in them with a sense of direction and in a professional manner acknowledging their own role **C** - can operate as a chairperson, facilitator and reporter **C**
Grammar and structures	Good basic language skills, grammatical mistakes do not hinder the understanding of spoken and written language
Oral communication; Written communication	- phone calls, interviews, summaries, presentations, process descriptions, situations of employment, meetings, negotiations, technical presentations, communication at fairs - strategies of interaction, see page 4 - pronunciation: the effect of pitch, tones and intensity on signification; pauses and their effect; long forms/short forms - e-mails, letters, memos, presentations, reports, abstracts, resumes
Vocabulary	E.g. manufacturers and functions Machine compositions (LCD, laptop, screen) Operating systems (UNIX, Linux) Installation, customer support, maintenance Programming languages (C++, Java) Mobile environment of use (Bluetooth) Software Software design (the OSI model) Local area networks (WLAN, Cisco) Safety procedures (authorization, authentication, back-up systems, firewalls, SPAM…) Internet Protocols (e.g. Voice over IP) Buying and selling software; the rights Web page software (html, Frontpage, Dreamweaver) Organisation and operations of an enterprise
Material used in teaching	E.g. Huhta, M. 2002. Connections - Communication Guidelines for Engineers. - Company and product brochures - Articles on research and on backgrounds

Assignments and methods	Principles applied in the choice of assignments: - assignments encountered in working life - individual assignments, but also group and team projects to improve teamwork skills - the goal of the assignment has to be challenging, realistic and proportioned to the knowledge that the student has at hand - assignments related to the profession's information content are emphasised; linguistic form (the typical output of the text type) is an important by-product, which forms a 'bank of discourse' for the student. - assignment forms that vary in starting levels (e.g. vocabulary, translations, instructions given in both languages) - success of the achievements is facilitated by varying the level and assignment type (presentation in front of an audience alone/in a group without papers/with a list of support words/transparencies, oral summary, when sitting, with the help of notes etc.) - the students' ability to acknowledge the quality of their product is developed with the help of peer and self-evaluation.
Assessment	Written exam 25 % Portfolio/ team 25 % Case study simulation 25 % (Meeting, negotiation or other interactive situation) Oral exam 25 %

C) GENERAL COMMUNICATIVE GOALS

General competence in communication	**Declarative general knowledge**: a structured view of the world and its phenomena (places, institutions, organisations, events and functions in the different areas of life); categorised information (concrete/abstract) Socio-cultural knowledge: everyday life, living conditions, relations between people. Values and attitudes, body language. Intercultural awareness. Skills and know-how: social, everyday life skills, professional skills, spare time skills. Intercultural skills and know-how. Life management skills: attitudes, motivation, values, beliefs, cognitive styles, personality factors. Learning ability: awareness of language and communication, phonetic skills, study skills, heuristic skills.
Communication strategies	**Strategies of interaction:** - knows the listening strategies, the methods of turn taking and facilitating - can plan communication that is suitable for the target - can argument one's own opinions, taking the backgrounds of interlocutors into account - can affect the contents by evaluating, combining and correcting already expressed opinions - can make reports and memos that include central parts of a conversation

Communication processes	Each task has their own. The completion of a task is often preceded by: 1. acknowledgement of the communication task 2. identification and analysis of the communication target 3. acknowledgement of the communication goal 4. choice of channel 5. choice of register, discourse and style 6. completion of the linguistic task 7. assessment of the success of the task
Linguistic communication skills	*Linguistic knowledge and skills,* competencies: vocabulary, grammar, semantics, phonology, orthography, skills in reading out loud *Sociolinguistic knowledge and skills:* indicating social relations, politeness, differences in register, wisdom of people, and variation of linguistic form. *Pragmatic knowledge and skills:* Discourse competence (flexibility, turns in conversation, development of theme, cohesion of a text) Functional competence: microfunctions, macrofunctions, schemes of interaction (fluency, accuracy)
Attitude towards mistakes and errors	The following things are emphasised in assessment: - communicating the message as intended - choice of the proper text type and its discourse - minimisation of errors as a factor affecting meaning encouragement of one's own activity and risk-taking

APPENDIX 9. Interview Questions to Domain Experts.

Nov 3, 2005

CEF PROFESSIONAL - NA7

INTERVIEW QUESTIONS TO DOMAIN EXPERTS

A. BACKGROUND INFORMATION (applying to all languages)

1. What are some typical examples of **professions/jobs/occupations** for x professionals in your experience?

2. What type of **employers/organizations/companies** employ x professionals?

3. Let us go through a list of **job descriptions** these professionals typically do? Would you like to add something to this listing?

4. To what extent are foreign **languages needed** in your view? Which languages?

5. Could you **recommend persons or organisations** that could give me more information about other aspects of x professionals' work? Are there associations that coordinate the x professionals? Website?

B. LANGUAGE-SPECIFIC DESCRIPTION

1. Context information

We need to create an overview about the the communication situations x professionals face at work.
Here is a general list, based on the information avalable for us. Could you have a look? *(show communication situations)*

6. Which of these spoken communication situations are essential in your view? **(priority**)

7. Where does this communication take place? (**location**)

8. Which people would be involved? (**persons, communities, companies, (partner) institutions**)

9. Can you see some other relevant **situations** that you see **missing** here?

(for written texts – show your preliminary list)

10. What kind of texts/genres do x professional need to write?

11. Which of the texts/genres are common in your view?

12. Who is this documents written for? **(target group)**

13. What is the purpose/aim of such a document?

14. What would make a really good z text? **(background information)**

2. Objectives of learning courses, materials methods and assessment

15. If you were to give x professionals a language course, what skills should it concentrate on in your experience of how well x persons communicate? (**aim, objective**)

16. Is foreign language needed more for oral or written skills? (**proportion**: 50%/50%)

17. What skills would be important components of **oral performance or listening**?

18. What skills would be important in the **writing and reading**?

19. How important is **terminology/specialist vocabulary** in x professions –or is it possible in your field to get away with roundabout explanations?

20. How important is the perfection of **pronunciation** in x professions –or is it possible in your field to get away with roundabout explanations?

21. Can you think of **methods** that you would recommend for improving the skills you have described? (learning methods)

22. Can you think of **authentic assignments** you would give to the learners to improve the skills you described? (learning tasks)

23. What would be the **best ways of demontrating** the communication skills of x professionals? (assessment)

C. GENERAL COMMUNICATION OBJECTIVES

With general communication we mean

- how we put together a message/communication for this purpose and person/group
- what discourse you use (face-to-face talk, letter, phone, body language)
- what content you choose to include and exclude
- how we listen, comment, summarize, inquire and facilitate
- what communication strategies (e.g. direct/indirect, persuasion) we use.

24. Concering general communication, what do you think are the most important general competencies/skills that x professional should have? Can language practice improve some of the general competencies?

25. What can you say about (culture and sociocultural factors)

- social rank markers in your field?
- dress code?
- body language?
- politeness practices?
- respected qualities of x professional?
- values highly appreciated? Not appreciated?

APPENDIX 10. CEF Professional Profile in Mechanical Engineering. NA7.

TECHNOLOGY – MECHANICAL ENGINEERING

CEF PROFESSIONAL PROFILE - NEEDS ANALYSIS 7

A. *TARGET PROFESSION*

Field	Technology
Education/ Program	Degree Program in Mechanical Engineering
Specialization(s)	Machine Automation
De-gree/Qualification	BEng(Machine Automation)
Language	English
Drawn up by	Marjatta Huhta
Date/City and country/ Organization	Feb 28 - May 14, 2006, Helsinki Polytechnic Stadia
Methods used for collecting the information (methods, persons, dates)	April 21, 2004; description by Anna-Maija Lappalainen, English teacher of Machine Automation students January 21, 2006; CEF Professional Profile draft by Marjatta Huhta, English teacher of Machine Automation students Heikki Hasari, Head of Mechanical Engineering and Jari Savolainen, Senior Lecturer in Machine Automation, Jan 27, 2006 Sami Aaltonen, Designer, Elomatic Consulting and Engineering, April 19, 2006 Tapio Martikainen, Regional Manager, Elomatic Consulting and Engineering, April 19, 2006 Esa Ritari, Project Manager, Nimatec, Technopolis, May 2, 2006

B. OCCUPATIONAL INFORMATION

Typical examples of professions/occupations/ jobs	Designer and programmer of automation systems Project engineer; project manager, designer Sales engineer Management positions up to top management level Production engineer Commissioning/ramp-up and maintenance operations Group leadership, supervisory or management positions
Typical organizations, companies, communities to be employed in	Mechanical engineering industry: companies and workshops A German or American principal, whose products are sold in Finland. Customers need must be understood and products need to solve customer's problem.

	Paper industry: factories, subcontractors, partners Importers of hydraulics, Festo, Bosch-Rexroth (own half of Germany's hospitals), SMC (Japanese importer of pneumatics), Nokia (for programming positions, production operations) Rocla, UPM-Kymmene, M-Real, Valmet, VR, Finnair, Kone, Rautaruukki, ABB, Metso, Sencorp Corporation, Wärtsilä, Metso Automation, Metso Drives, VTI Hamlin, Vaisala, Componenta (gears), Elcoteq Perlos, Eimo Muovi (plastics corporations); Design engineering companies for paper machine design (Metso), ship design (Aker Yards); Automated systems for food processing industry or waste management
Typical job descriptions	Design and programming of automated operations and systems in industrial production Design of control systems for mobile machines such as hoists and forklifts Equipment and systems design Tailored solutions to customer's problems Steering solutions: programming, measurement, sensor technology Product development Production operations Control and supervision engineering in plants Project design and implementation Planning, programming, commissioning/ramp-up, testing, quality management, production, installation, service, maintenance Corporate systems management and control (ERP, SAP, MFG, DG) Purchasing and sales operations
To what extent the language is needed	A mechanical engineer cannot cope without English as all new text material is in English, as are discussions with suppliers, subcontractors and clients. Also, communication with a possible principal from abroad occurs only in English. Some mainly read in English and write e-mail in English. Those with a 3-year technician education may be able to cope somewhere orally without English. In other positions oral English is a necessity. If a graduate has English skills, career opportunities are wider. Mechanical engineers should also know German.

*C. **CONTEXT INFORMATION***

C- core contents

	LOCATION	*PERSONS, COMMUNITIES, COMPANIES, INSTITUTIONS*	*COMMUNICATION SITUATIONS*	*TEXTS*
Work	Office facilities by the employer, conference rooms Production facilities The client's or partner's premises Trade fair locations Restaurants, hotels and travel targets during client visits Conference venues, seminars, working groups, video conferences Office	**Individual:** clients, employers/employees, managers, colleagues, subordinates **Professional:** suppliers of equipment and material, programming companies, sales companies; paper companies (manufacturing and processing), companies in plastics. Domestic and global agents of global corporations from different fields of industry and commerce. **Public:** Standardization bodies (CAN-CiA –CAN in Automation, ODVA, ISO) and other expert organisations producing statutes, directives and standards External auditors Ministries and other governmental agencies	Dealing with expert and client contacts in meetings and negotiations, including unexpected interactions face-to-face Client and expert discussions on technical specifications, project design, project management, change of detail, amendments, project monitoring and follow-up Presenting operations facilities and guiding tours around the premises, giving information about the company, product/tailored solution and its functionalities, solutions and limitations Presenting a product/solution/an automation line, discussing options of tailored solutions; solving problems of current clients Small talk; general interest issues, current events and news, local knowledge alonglide with actual business Sharing information, interacting in seminars, teams or conferences Utilizing information from reference materials such as manuals, network sources, instructions and documentation, professional sources Managing business by	Company presentation **C** Discussion about industry (fields, products, corporate operations) **C** Interaction situations: Trade fairs **C** Meetings **C** Interviews **C** Negotiations **C** Process descriptions **C** Business letters and emails: Inquiry Quotation, **C** Job application Claim Adjustment Articles, web sites, marketing texts and text analysis **C** Product presentations Negotiations and meetings Telephone contacts Social situations (e.g. functioning as a host) Dialogue (telephone: inquiry, fault analysis, feedback, appointments) Presentations (technical presentation, introduction of a plan) Report, memo Service instructions

			telephone, email and Internet Using computer programs e.g. AutoCAD, CATIA, Excel Dealing with operations management systems DG, MFG Writing instructions, specifications, manuals, reports, memos	
Study	Lecture rooms, laboratories, at trade fairs and exhibitions, the web, at the workplace/company as a trainee/employee	Educational: international guests and guest lecturers, exchange students and trainees, final project workers , students in the VPD - Virtual Product Development (CATIA) project Private: search for job or traineeship	Reading articles, study material and web materials in English C Interaction in class and with final project workers and project workers from abroad Articles, web sites, marketing texts and text analysis C Oral reporting C Describing personal strengths and challenges C Family relations, living conditions Drawing up applications for traineeship or student exchange Taking notes in class	Texts: Description C (educational and work experience; procedures) Presentations C CV and cover letter or Web application Job interview C Report C Abstract C E-mail Note-taking tools Small talk

D.THE MOST FREQUENT SITUATIONS

Situation 1. Fax and telephone call
Situation: finding out and fixing some changes in a drawing
Place: office
Persons present/involved: project manager, designer (of the manufacturer), engineer from the buyer compnay
What is essential to make the communication successful: clarity of the question, sufficient background details correct
Details:

A client from a Swedish machining workshop contacts the project manager of an engineering company to find out who has designed the equipment for web-dryers (leijujen varustelu). The project manager forwards the call to the designer, Sami. Sami receives a fax from the Swedish company with the following information:
Client: FPM Paper
Product number: VL-13 – equipment for web-dryers (paperin kuivauslaite)
Year/week: 2006/20
Project number: 328
Revision number: 02 (reviisionumero)
Designed by: SAA-EM
Checked by: SAA-EM
Approved by: CEM-SA
Program: CATIA
Filed in: S/webdryers/EM
The telephone call may deal with

- Swedish subcontractor wishes to check some of the measurements for the above drawing for manufacturing as some measurements do not seem to match (diameter/width) or
- the workshop inquires whether a replacement/substitution can be used for the assigned manufacturer, as the manufacturer cannot supply them with the component

Situation 2. Telephone call
Situation: finding out some details concerning tolerance of material
Place: office
Persons present/involved: project manager, designer (of the manufacturer), engineer (from the buyer company)
What is essential to make the communication successful: finding the right person who knows all the details, sufficient background information
Details:
The problem:
Sami has now made an instructional drawing for installing a bearing cover.

- The workshop informs that the material is too smooth: the tolerance is not marked in the drawing. The workshop calls to inquire about the tolerance (= how many millimeters of free space is required; tolerance classes are such as J, H, K). The approved tolerance for the support could be H7/h6.

Situation 3. Telephone call
Situation: finding out and fixing some changes in a drawing
Place: office
Persons present/involved: project manager, designer (of the manufacturer), engineer (from the buyer company)
What is essential to make the communication successful: finding the person who knows the detail, having documents detailed enough, knowing the work processes/persons doing each phase
Details:
The problem:
Sami has now made an instructional drawingt for installing a bearing cover.

- A bracket is to be designed by a machining workshop. The drawing does not indicate the diameter of the hole. What is it? The information needs to be given to the subcontractor.

Case 4. Invitation to tender followed by a telephone call
Situation: looking for more detailed information for being able to draw up a tender
Place: office
Persons present/involved: project manager, designer (of the manufacturer), engineer (from the buyer company
What is essential to make the communication successful: asking for enough detail to be able to draw up a tender

Details:

A regional manager from a design engineering company is contacted to join a tender for designing a ship loading device by a shipbuilding company. Size: 150x105 meters. Height 40 meters. The strength of the material will be calculated in the Jyväskylä unit of the engineering company. The estimated design time is 7-8000 hours. The hourly rate varied EUR30-60 (2006). For shipbuilding all documentation must be in English.
More information about engineering companies www.skol.ry.fi (SKOL Suomen konsulttutoimistojen liitto)

Case 5. E-mail
Situation: sorting out a problem concerning signalling of a processing line
Place: office
Persons present/involved: Jack Cloud, a maintenance manager of the client, project manager (of the manufacturer)
What is essential to make the communication successful: acknowledging the problem (though uncommon for a Finn), willingness to solve the problem
Details:
Jack Cloud, maintenance manager from Maple Leaf Pharm, a poultry processing plant from Chicago inquires about a change in the contents of a delivery of a newly installed processing line. The red light push-button indication signal for the 'GO' of the processing line must be changed to green as red in the States indicates NO. Esa will check with the supplier to see if they or some other party can provide this option and draw up a quotation for having it changed. There is no hurry to do this in the morning as people in the US are in bed until 3-4 p.m. Finnish time.

Case 6. E-mail
Situation: sorting out/timing the dates for installation work
Place: office
Persons present/involved: project manager, designer (of the manufacturer), engineer (from the buyer company)
What is essential to make the communication successful: flexibility in serving the client's needs

Details:
A client of a vacuum conveying process manufacturer confirms the dates for installations in the slaughter house. The installations must be at night-time as production may not stop during the daytime. The slaughter house will have their own mechanics to do the work, but the supervision is provided by the supplier. After confirming with your supervisor, inform the client that the supervisor will be on the agreed dates.

D.THE MOST DEMANDING SITUATIONS

Demanding situations mentioned by the interviewees:

Situation 1. Giving a presentation at an international conference

Situation: giving a persuasive presentation about a potential robotics line
Place: office
Persons present/involved: project engineer, group of potential buyers
Why the situation was demanding: new experience, attitudes of the listeners, presenting in a foreign language, corresponding deals were made in the US (the Texas accent caused trouble)

Details:
In this case the engineer was selling a project; (sometimes in sorting out problems such as scheduling and detailing of contents (what in fact has been sold), often a grey area occurs, which has not been predicted.

The interviewee worked as a sales engineer in a company called Cimcorp, which delivered robotics and production lines to e.g. Korea.

The interviewee was doing pre-commercial work: presenting the company's products and solutions to production line technology. A group of Koreans, including production management and departmental management (4-5 persons), were listening. A factory tour was organized; premises inspected. A palletizing robot was needed in the production line for handling the motor blocks based on a turnkey project, tested and commissioned on site. The price range was within EUR 200-300 000. Often the payment term to Korea is Letter of Credit. Or perhaps some % advance payment, say 30%, including bank guarantee. As soon as the customer accepts the quotation, the advance payment is effected. An installment of 30-40% may be paid after the trial round, and 20-30% after acceptance. Once the product has been documented, payment of the remaining 10% can be effected.

The gray area requiring discussions: problems occur in connection with installations on site, which need to be solved.
For example difficulties with the supplier's own employees, illness, adaptation problems. The descriptions of the installation site may not coincide with the conditions; too little space, for example. There are therefore sometimes delays in the installation schedule. A realistic installation time might be 2-3 weeks.

***Situation 2*. Negotiating with public authorities**
Situation: Unexpected negotiations content because of different legislation in the US; giving US a persuasive presentation about a potential robotics line
Place: client's premisesice
Persons present/involved: project engineer, group of potential buyers
Why the situation was demanding: The situation was demanding for these reasons:
- *the counterpart was not an engineer, but a hygienist > you must be careful with terminology*
- *the counterpart /representative of the US Ministry of Agriculture) had the power to approve or*
- *DISAPPRROVE the plans > you could not afford hard feelings or irritation*
- *the schedule was tight ; the inspector had reserved a week for going through the plans > no chance for any extra time*

Details:

The company manufactures three kinds of equipment, one being an automatic cheese manufacturing line.

A whole cheese production line was offered to the Amish area in Michigan, US. The first visits involved getting familiar with the manufacturing of the local Emmental cheese. As the outcome, an order for a production line was placed by the cheese manufacturer. BUT if a company in the US wishes to sell the product to the army or to schools, stringent hygiene requirements must be met and equipment approved by public authorities. The dairy has a need for this.

The interviewee contacted the US Ministry of Agriculture. First, information was sent about the production line; later some information had to be presented on site. The listener was not an engineer, but a hygienist. Several problems were discovered. During a one-week process, negotiations were conducted (full cheese-making line for Emmental cheese) during the daytime and new drawings were made at the hotel during the night-time. A lot of drawings were involved.

The problem was that all parts that were in contact with the product had to be made such that they could be dismantled and washed regularly for hygienic reasons. The parts are washed by dairy workers not having a very high educational level. They needed training. All parts in contact with the food product (cheese containers, piping, mixer, cutters, filters used for the curd, masses pivoted into moulds, mass pressed into cheese) had to become easy to dismantle, wash and assemble. The collected mass will be salted in salt water, after which the cheese ripens on shelves for 3 – 12 months. For hygienic reasons all holes or gutters must be avoided.

The Ministry approved the plans; manufacturing of the line was started. The lines were commissioned on site. An inspector from the US came to check in Finland that everything had been done in accordance with the agreement. The spirit was positive and constructive. During the visit the inspector presented the principles of establishing long-term hygienic requirements. During the process he focused on the principles and was pleased to find the solutions adequate as the product drawings were being improved.

The installation on site lasted three months. 10 professionals were needed (welders, mechanics, automation engineers) to complete the installation.

Situation 3. Organizing an auditing visit
Situation: organizing an auditing visit
Place: telephone, e-mail, letter, actual audit program
Persons present/involved: Italian client, project manager, British inspector
Why the situation was demanding: new experience, an audit can cause unexpected problems, a native speaker speaking fast
Details:

An Italian client has ordered some valve combinations. Because their clients are all petrochemical plants, a three-party objective external audit is required. The project manager must organize this. The inspector has been invited from Britain (e.g. Lloyds). First the product and the documents are inspected and some tests are conducted at the manufacturer's site. For example, if 100 valves have been ordered, a random sample of them will be tested. If everything is OK, Lloyds sends a test report and approves the standard. If there are deviations, a deviation report will be written and the project manager must fix an appointment for a new review.

The problem during testing days like this is that there will de delays in the schedule (for example setting up test systems for large valves, so organizing a schedule with a valid program is challenging. The location is a negotiations room: 20 tests in three days. Sometimes there may be many tests during the same week. That is tedious: to keep up motivation. The most frequent deviations are missing elements in the documentation if the client has delivered the documents straight to the inspector and only the new versions by the manufacturer have the final details.

D. SNAPSHOT

SNAPSHOT 1. A working day

Esa, the project manager in a waste management company, arrives at work between 7-8. Logs into the computer to find 5-10 mails from the west. Mails pertaining to changes in the contents of a delivery, schedule changes, requests for additional offers. Confirmations. After reading the mails Esa goes and picks up coffee from the hallway and returns to his desk.

Esa continues searching for answers to questions such as case 4 for frequent situations. He sends an inquiry to the factory. He goes back to an order from the previous day, an order from a slaughter house in Denmark for a vacuum conveying system with two machines. They must have seven suction points. The total value of the deal is EUR450 000. Delivery time 9 weeks.

Esa goes and meets the production manager to discuss how the order can be placed in the production schedule. Another meeting must be had with the purchasing manager for him to start purchasing the required materials. Esa fills in the order into the quality system according to the agreed quality management manual.

On returning to his desk Esa sends an e-mail to the Danish client to inform how the order has been processed further. Distractions occur. A colleague comes and wants a second opinion on a rescheduling plan in the production. After lunch Esa has received an e-mail to confirm that the factory can provide red lights. He will process the information into a quotation to be sent off the American client for consideration.

An inquiry arrives through a Dutch sales outlet to design and deliver a special solution for delivering a heating jacket for controlling the temperature of waste in winter conditions to prevent freezing. The Taifun system is built by the Dutch to be located outside, where the temperature goes below zero.

On the way home (which is a long way) Esa phones the US and western European clients, e.g. Italy, as they are now in the office.

SNAPSHOT 2. Project manager's work

The project manager's tasks concerning the acquisition of equipment is as follows:
The project manager discusses with the designers, who draw up specifications, drawings, calculations and instructions on how the equipment will be built, based on the contracted deal.

If the machining workshop is part of a company, the project manager will visit production to see if something needs to be done differently from any standard procedure solution. His/her task is also to see that the products are manufactured on time. Schedules are based on accepted details of the contract. All project managers compete for the same production capacity. A typical assignment is to initiate the purchasing of outsourced components, agree and supervise that the components arrive on schedule. Contacts with the end client and other contractors on the same site are also part of the project manager's job description. These similar jobs keep repeating themselves, only the object of the project changes.

There may be several ongoing projects at the same time, up to three. The responsibility stays with the project manager though the project is finished and the production line up and running. The project manager is in charge during the minimum of the guarantee time (e.g. 2 years), but often even after that. If the project is large, the manager only controls one at a time. Often when the project is about to end, the project manager is asked to participate in a new bidding round.

There are critical moments/points, especially in production: some other project may override and the manager's project will be delayed. He/She must contact the production manager in charge of production. Negotiations are conducted between project managers to minimize problems. The sales unit may often have promised too tight a schedule and as a result the delivery may be late. Supply may also be delayed. Other unexpected disturbances may occur. The project manager needs to be strong as a person as the job is challenging. If he/she gets upset he/she may already have lost a grip. Good nerves are an asset as well as an eye for psychology plus understanding different cultures. For example Asians easily get hurt if they feel their “face” is threatened. Losing face may be caused by very unexpected points such as having made a minor mistake.

Orders for cheese manufacturing lines may arrive for example from Germany, which is full of small cheese-making factories. Finland may have delivered a partial delivery for cheese manufacturing. For example a single mass press unit. The project manager may also be a designer, who besides designing also dealt with other work in the project such as acquiring materials and components, doing trial runs and dealt with the commissioning in Germany. Other cheese manufacturing equipment may be some post-treatment equipment such as cutting or packaging operations.

APPENDIX 11. Needs analysis sample 9. Case study. NA7. Structural engineering.

Needs Analysis Sample 9: Case Study NA7.

Structural engineering: Structural engineer in his own engineering consultancy.

Penka Taneva-Kafelova conducted an interview in Bulgarian with Ilia Georgiev, structural engineer (SE), owner and manager of ProStructure Engineering Consultancy based in Plovdiv, Bulgaria, on February 28, 2006 at the company office.

The interview lasted about 2.5 hours and was targeted at defining structural engineering as such, a structural engineer's job descriptions, the people along the communication chain of a SE, the location, type and topic of common and demanding communication situations at work, and types of written texts a SE deals with, and the need for and use of foreign languages in work contexts on the basis of the experience of both interviewer and interviewee in the structural engineering profession.

The researcher based the snapshot on both the interview data and her knowledge and experience in the field. Names of locations and business organizations, etc. mentioned by interviewee were changed or left out to respect the anonymity of the interviewee.

Some Background information

I am Ilia Georgiev, a graduate of the University of Architecture, Civil Engineering and Geodesy in Sofia, Bulgaria. I have a Master's degree in Structural Engineering and made a post graduate study in Applied Mathematics. At present I have my own engineering consultancy, but years ago I used to work for the Plovdiv Regional Design Company, the largest architectural and engineering design company in the south of Bulgaria. I have been working as a structural engineer for 20 years now.

What is structural engineering all about?

When sometimes people ask me what my profession is and I say 'structural engineer'[i], they would nod their heads understandingly and say: "A-ha, you are an architect!". "Not exactly," comes my polite answer, "but we work in the same area, and a building project cannot do without an architect, nor without a structural engineer, and other engineers too…".

As a matter of fact, architects and structural engineers are the ones who create the *urban environment (and infrastructure)* for humans to inhabit. They create the shell in which humankind dwells and functions, which is to humankind what the body is to the soul.

The architect in his both artistic and rational ways determines the shape, appearance and function of a structure, while the *structural engineer provides the 'skeleton'* and 'fleshes out' the creation, so that it possesses both elegance and sufficient *strength, durability and ductility* to perform its functions.

Structural engineering is the science and art of designing and making with *economy* and elegance residential, public and industrial *buildings and structures*; stadiums and other sports facilities; highways, road junctions, bridges, tunnels; towers, airports, harbors, oil rigs; practically anything from a playground climbing frame to the tallest building.

How does a structural engineer and head of an engineering company do his job?

Behind any structure or building you see, there is a structural system which consists of various structural elements which, when calculated and designed appropriately, are able to provide that the whole structure is strong enough to bear both its own weight and external impacts like wind, snow, earthquakes. Selecting, calculating and designing this structure is our job.

Comfortably seated at my desk in the office (to be honest, sometimes I wish I did not have to spend such long hours seated, no matter how comfortably☺) I do things like:

- ✓ *Assess* the dead *loads*, imposed loads, wind loads, earthquake loads, snow loads and other loads acting on the structure in accordance with the *relevant building code* (it may be Bulgarian, Eurocode, Russian, Ukrainian or American).
- ✓ *Select a suitable structural system* to carry these loads safely to the foundation depending upon the nature of the soil.
- ✓ *Calculate the dimensions* of structural members: slabs, beams, columns, walls, foundations, staircases, lift wells, etc. in accordance with the relevant Standard Specifications.
- ✓ *Determine* the grade of concrete and amount *of reinforcement* in the various members mentioned above, and prepare detailed structural drawings in accordance with the relevant Standard Specifications. Whether it is a structure made of reinforced concrete, metal or wood, the procedure is not much different
- ✓ Put the ready *project documentation* in thick nice bright-colored files and hand them to the client.

End of Design Code. This is the *technical* part of it.

However, the freedom of being your own boss naturally brings about some obligations too. Before I sit comfortably in front of the computer in my office and do what structural designers do, I have to provide a project to work on. This means a lot of communication, *meetings, prospective site visits, and negotiations.* I or the architect and I have series of meeting with the ***OWNERS*** *of prospective buildings or their representative/consultant*. (In some cases the owner and builder/contractor may be the same legal entity)

After we have the Terms of Reference and sign a *design contract*, we have a kick-off meeting with the rest of the **DESIGN TEAM** which usually consists of *an architect, myself, an electrical engineer, water supply and sewerage engineer, heating, ventilation and air conditioning engineer, geologist, geodesist and landscaping engineer and a technologist* (in case of industrial buildings).

From this point on my job follows the rules and procedures of good PROJECT MANAGEMENT where THE PROJECT's final product is: precise static calculations, detailed structural drawings (usually CAD), and all relevant written project documentation prepared and nicely arranged in the thick bright-colored files I told you about earlier.

Does a structural engineer and head of an engineering company need foreign languages to do his job?

The project management process mentioned above involves an unexpected (for an outsider) amount of communication, and depending on who the owner/contractor is, who the design team members are, and where the building site is, the project documentation and all or part of the communication may be done in a foreign language. You can see details of communication situations in C. CONTEXT INFORMATION **(work context)**

There is another option which I feel lucky to have experienced, and it is working in a foreign country. Years ago I worked for two years as a CAD manager for a large architectural company in Pretoria, Republic of South Africa, and later on in the design department of a huge construction company in the USA which had offices in 12 of the states. The technical part of the job in such case is a piece of cake – building codes are quite similar from country to country. However, languages are not always ☺.

Reading and comprehending professional literature is the easiest thing for an engineer to do. Thus, it is quite misleading and develops excessive self confidence related to foreign languages. On my first structural engineering job abroad, language issues were far more challenging than purely professional ones, since managing the computer aided design of a huge hospital required a lot of oral communication, and my spoken English at the time was far from being perfect. In about three months it radically improved. Through a lot of effort on my side, by the end of the period I was able to read James Clavell's *Shogun* in the original and to communicate fluently with colleagues. (I reckon that learning English through reading *Shogun* is my own trade mark ☺). Later on, on my job in the US I could equally easily interact professionally with colleagues on the project team, with site engineers and other company staff, and take part in work-related social talk. I would say that a professional fluent in a foreign language or two inevitably enjoys a better quality, exciting professional life.

Extract from the CEF Professional Profile on Structural Engineering by Esko Johnson and Penka Taneva-Kafelova (CEF Professional 2007).

APPENDIX 12. CEF Professional Profile Template.

CEF PROFESSIONAL PROFILE

A. TARGET PROFESSION

Field	
Education/Program	
Specialization(s)	
Degree/Qualification	
Language	
Drawn up by	
Date/ City and country/ Organization	
Methods used for collecting the information (methods, persons, dates)	

B. OCCUPATIONAL INFORMATION

Typical examples of pro-fessions/occupations/ Jobs	
Typical organizations, companies, communities	
Typical job descriptions	
To what extent the lan-guage is needed	

C. CONTEXT INFORMATION

	LOCATION	*PERSONS, COMMUNITIES, COMPANIES, INSTITUTIONS*	*COMMUNICATION SITUATIONS*	*TEXTS*
Work				
Study				

To increase the depth of understanding the above listing is detailed by two aspects:

D. THE MOST FREQUENT SITUATIONS

<5-10 line description of communication situations including type, location, participants in the contact, length, objective of contact, sequence of events, what is essential for succeeding in this communication> *E.g.* A departmental secretary receives a phone call from a truck driver as to the location of the customs office. She gives him directions of how to get there. *This can be asked as in the Leonardo project Prolang:* *Describe a* ***common work situation****:* *Situation:* *Place:* *Persons present:* *What is esssential for the communication to be successful?*

E. THE MOST DEMANDING SITUATIONS

<5-10 line description of communication situations including type, location, participants in the contact, length, objective of contact, sequence of events, why this situation was experienced as demanding>

E.g. A quality engineer in his thirties from a large electronics company is giving a presentation to an audience which is made up of four different nationalities, of the age span of 25-55 years of age. The difficulty is that the audience is big and they ask diffiicult questions, the informant comments. She steps in front of the audience, introduces herself, gives a 20-minute presentation and afterwards answers question. (case 78)

This can be asked for example as in the Leonardo project Prolang:

Describe a ***demanding work situation*** *where you have or would have needed foregn language skills.*
Situation:
Place:
*Persons present_*
Describe the phases of the situation from beginning to end.
What makes the situation demanding?

F. SNAPSHOT

Description of work situations in the life of a professional/ the lives of these professionals. The aim is to bring life to the listin of communication situations. The style of this discourse in a story of 3-4 pages.