Article

How Future Teachers Develop Professional Knowledge Through Reflective Writing in a Dialogical Frame

VANHULLE, Sabine

Abstract

This paper is based on an intervention study. It deals with research that tackles the development of professional knowledge appropriation in future teachers before they teach reading and writing (or ''literacy'') in primary classrooms (ages 6–12). During the intervention, peer discussion and reflective writing tasks were organized so that students think about what it means to teach reading and writing today, in theoretical and practical terms. Each student collected many reflective texts in a personal portfolio. After the intervention, a second phase of research began. We created qualitative tools to describe and interpret how these pre-service teachers had progressively built professional knowledge about literacy teaching. First, we established five ''clusters'' from indicators such as students' initial and final attitudes towards reading and writing, involvement in the training activities and progression in semiotic and reflective abilities. Then, we selected five students' portfolios (one per cluster) and proceeded to the written discourse analysis. This analysis was based on a listing of the three main [...]

Reference

UNIVERSITÉ
DE GENÈVE

SABINE VANHULLE

HOW FUTURE TEACHERS DEVELOP PROFESSIONAL KNOWLEDGE THROUGH REFLECTIVE WRITING IN A DIALOGICAL FRAME

ABSTRACT. This paper is based on an intervention study. It deals with research that tackles the development of professional knowledge appropriation in future teachers before they teach reading and writing (or "literacy") in primary classrooms (ages 6–12). During the intervention, peer discussion and reflective writing tasks were organized so that students think about what it means to teach reading and writing today, in theoretical and practical terms. Each student collected many reflective texts in a personal portfolio. After the intervention, a second phase of research began. We created qualitative tools to describe and interpret how these pre-service teachers had progressively built professional knowledge about literacy teaching. First, we established five "clusters" from indicators such as students' initial and final attitudes towards reading and writing, involvement in the training activities and progression in semiotic and reflective abilities. Then, we selected five students' portfolios (one per cluster) and proceeded to the written discourse analysis. This analysis was based on a listing of the three main categories that concerned the topics the students developed from one text to another: the reflective operations visible in the texts; and the linguistic ways of enunciation. Five different reflective pathways were identified: "comprehensive", "prescriptive", "pragmatic", "heuristic-critical" and "resistant".

KEY WORDS: discourse analysis, indicators of reflexivity, reflective pathways, mediation, portfolio, writing to learn

1. INTRODUCTION: CONTEXT AND ISSUES

Our intervention was especially built in the context of collaborative research between the Educational Research Department of the University of Liege and a Pedagogical High School (Primary pre-service teachers).[1] Trainers' and researchers' starting questions were: how can trainers motivate pre-service

---

[1] Contrary to programs in other countries, where becoming a teacher requires a university degree, future Belgian primary school teachers follow a 3-year post-secondary course (in a High Pedagogical School – Haute École Pédagogique/HEP), which includes both theoretical courses as well as practical classroom experience. This longitudinal research began with 66 students (three groups) we followed during the first year. For different institutional reasons, only one group (18 students) stayed in the framework of the research until the end. The other students benefited from the tools and design we created with their trainers.

teachers to develop a high level of interest for language and for pedagogical methods which can be relevant to teaching reading and writing today?

In Belgium, as in other countries, reading and writing programs are henceforth planned in terms of high-level abilities and skills to acquire from primary school onwards. Young pupils have to be prepared to become able to rapidly infer information from the implicit, activate relevant previous knowledge, anticipate, bear some pieces of information in mind, ask questions about the text, or write a text about precisely defined projects. Many Anglophone authors use the term "literacy" to indicate a continuum of competencies from a simpler to a higher level. Soares (1992), among others, observed that "the concept of literacy involves a set of structures ranging from individual skills, abilities, and knowledge, to social practices and functional competencies, to ideological values and political goals" (quoted by Harris & Hodges, 1995: 140). Similarly, Scribner (1984) suggests three metaphors to describe the wide range of concepts of literacy: an adaptation to societal expectations; a power to realize one's aspirations and effectuate social change; or a state of grace to be attained by the well-read, cultured person (in Harris & Hodges, *Ibid.*). So, children's literacy development means much more than a simple command of language rules (grammar and spelling). Above all, this development supposes a real access to culture by language.

So, the term "literacy" not only indicates a set of cognitive abilities to use written language for understanding, interpreting or producing texts. In a cultural–psychological perspective, it indicates a powerful tool mediating human development. The appropriation of such a tool depends on the capacity of the social environment to organize the accession of children to books, texts, libraries and so forth. It depends on pedagogical methods that can motivate children and teenagers to enter the world of words, in a readers' and writers' community. Literacy is not only a cognitive issue; it also represents a set of attitudes and practices: according to Guthrie and Wigfield (2000), motivation is the link between frequent reading and reading achievement.

Our intervention in the future teachers' training was aimed at stimulating them to conceive reading and writing learning from such issues. This target represented a real challenge. As revealed by diverse international and national tests,[2] youths of French Belgium have difficulties in reading, in terms of high level cognitive abilities, as well as in terms of attitudes and practices. Literacy teaching practices in primary schools are often limited to formal, grammar-based lessons to the detriment of reading comprehension or text production. Not enough time is allocated to reading and writing teaching after the first and second years of the primary degree. In such a

---

[2] Researches conducted by Dominique Lafontaine and the Service of Experimental Pedagogy of Liege from 1992 (http://www.ulg.ac.be/pedaexpe).

context, the future teachers generally had experienced only those formal methods in their own pasts, while the in-service teachers who receive them for trials in their classrooms merely entertain such practices. Furthermore, teachers and future teachers do not necessarily read and write, even for themselves.

With regard to these matters, our rationale was that the training could transmit some theoretical knowledge to students and methodological prescriptions about literacy teaching from a strictly academic perspective, giving them a large knowledge base from research in the area of literacy teaching and learning (for a synthesis reflecting a great part of this knowledge base, one can refer, among other Anglophone presentations, to Hiebert & Raphael, 1997).

Our issues, above all, were on how to improve students' relationship with written language, engage them in deep reflection about literacy in education, help them to appropriate scientific knowledge to transform some initial representations and prior knowledge about literacy and conceive innovative and high level professional projects in this area, making them "reflective practitioners", to borrow Schön's successful word (Schön, 1983).

The reflective approach we implemented in teacher training leans heavily on socio-cultural and psychological-developmental perspectives inspired by Vygotsky's works (1987–1999). This made it possible for reflective practitioners to be linked with issues such as the relations between learning and psychical development, and between thought, language and action. A concomitant issue revolves around the notion of mediation, which, for Vygotsky, is the central fact of education. Learning social processes generates transformations in the human mind through technical and semiotic tools built throughout history. Culture and cognition create each other (Cole, 1995) through the mediation of tools that humans use to assimilate environmental constraints and transform these by participating in shared collective goals, negotiating and communicating their places and actions in society. Language plays an essential role, not only as a communication instrument but, above all, as a mind construction method. Words, signs, and myths mediate humans' representations of reality, within and from the social activities they participate in. Human communications reflect those representations born in defined social contexts and through special artefacts.

In relation to such a point of view, we assume that "reflexivity" in teacher training consists of going thoroughly into theoretical and practical objects to create new representations/discourses propitious to act in society. In Peircian terms, it consists of enlarging one's inner encyclopedia of "interpretants" (Peirce, 1931–1958), re-actualizing one's world and self-representations. In

this construction process, others – with their own representations and words – offer a social source of mediation (Bakhtin, 1981).

Our intervention frame presents a dialectical tension between two goals. On one hand, it tends to change future teachers; it tends to work like a set of educational artefacts conceived to influence the manner in which students think and act. On the other hand, it tends to further students' autonomy in creating professional knowledge by appropriating theories. Such a paradox can be removed through the notion of "intersubjectivity", that implies that trainers and trainees try to develop "a reciprocal faith in a shared experiential world" (Rommetveit, 1985, quoted by Smolka, De Goes, & Pino, 1995: 169).

Such an educational process makes sense within a double movement, going from significations offered to significations (re)created. So, training functions as a space where a common professional referential frame is born, from the way in which objects (for example, theories) and events (for example, trainees' life experiences and first professional trials) are represented, defined or interpreted from co-constructed discourses. It implies for each to manage with the polyphony of voices, between adhesion and resistance, that will be confirmed by the individual discourses analysis we realized after the intervention:

"If in the texture of human relations we cannot always find the ideal or desired "symmetry" and "harmony", we can certainly identify simultaneous, even reciprocal, processes whereby subjects are constituted in relation to some definite or assumed social positions. This reciprocity does not, however, have the same harmonious meaning as "mutuality", which pervades the notion of intersubjectivity" (Smolka et al., *ibid*.178).

In the second section, we present our theoretical options and intervention goals and design. In the third section, we explain the analysis tools we created to understand the knowledge appropriation processes the students followed using specific reflective strategies in their written discourses. Then, we focus on the results. If five reflective pathways were identified, we must specify now that these are only tendencies, and certainly not psychological "profiles". To conclude, we discuss what teachers' trainers can do to enhance the quality of the reflective development.

2. THE INTERVENTION

2.1. *Theoretical Options*

We assume that by personally experiencing high level – and simultaneously motivating and rich – reading and writing activities, future teachers could appreciate the social and psychological dimensions of language and take it into account in their conception of teaching. Those activities were

implemented through reading circles where scientific or literary texts are discussed to elaborate together high level comprehension, writing workshops around different speech genres and written personal tasks (e.g.: Gambrell & Almasi, 1996; Guthrie, 1996; Mc Mahon & Raphaël, 1997; Terwagne, Vanhulle, & Lafontaine, 2003; Roller, 2001). Before, during and after the activities, students wrote reflective essays and collected them in portfolios (e.g.: Lyons & Freidus, 2004; Paulson, Paulson, & Meyer, 1991; Tiernay, Carter, & Desai, 1991; Valencia, Hiebert, & Afflerbach, 1994; Vanhulle & Schillings, 2004; Wagner, Brock & Agnew, 1994).

These personal texts functioned like proofs of each student's progress during the three years of training. They not only revealed a step by step knowledge construction but also a process of re-writing one's identity (Mahiri & Godley, 1998) as reader, writer and future teacher. This re-writing process was accompanied by our training team through a dialogical frame (and others through formative evaluation tools) and constantly sustained by peer interaction (excerpts of these activities are presented in Appendix A).

2.1.1. *Intersubjectivity, Dialogism and Development*
As we said in the introduction, those training tools are based on an intersubjective point of view. Indeed, exchanging information about their life and practical experiences and constructing knowledge together from theories and scientific or literary texts, future teachers can build common innovative references together; writing about their new potential references, they can internalize them in their own former representational framework through a voluntary work of re-elaboration. We assume that by doing so, future teachers can be motivated to become social actors of change regarding traditional reading and writing teaching practices: "*Why didn't I learn to read and write with these methods?*" – asks one student of our research group after having experienced literary reading circles first with her peers and afterwards in lessons she tried in a primary classroom. "*I think that the earlier one begins to teach children to question the implication of texts, the more they can develop a greater literacy*" (Vera, reflective text, second year). In another reflective text, she adds: "*World conceptions are created with language. Language tools influence world perception. Thus, those language tools must be well conceived when we teach*".

Systems of signs, or significations, after they have been shared in human socialization processes, are internalized by the singular subjects. They work like psychological tools regulating and transforming the former psychical functions (Moro & Schneuwly, 1997). Verbal language, speech, discussion, argumentation, explanation or self-expression, represent factors of psychological development, beyond the elementary biological expressive and

communicative functions of language. According to Vygotsky and his successors, all human development must be seen ''right from the first day of a child's life, as an essentially socio-cultural and tool-mediated process'' (...), and ''all human psychological processes develop out of collaborative social forms of interaction'' (Stetsenko, in Rieber and Robinson, 2004: 505). Human consciousness can develop when words – and others' words – become meaningful concepts that generate a transformation of thoughts and actions. Such an idea is echoed in Bakhtin's notion of dialogism, arguing that half of the words people use belong to others, as they appropriate words from others and adapt them to their own proposes (Bakhtin, 1981).

Rogoff (1995) emphasizes this Bakhtinian idea of ''appropriation'' of others' words, and insists on the fact that the notion of appropriation must be understood as a process of transformation. It refers ''to the change resulting from a person's own participation in an activity, not to his or her internalization of some event of technique'' (Rogoff, 1995: 154). We agree with it: in an educational frame, social interactions, in which oral exchanges intervene, constitute a first source of personal change. There remains a *locus* of the subject construction that depends on inter-subjective building of significations. Peers can offer new perspectives of thought and action, new interpretations about one's narratives of experiences and other perceptions of reality, mediating such conceptual changes or awareness.

But the subject here not only concerns new knowledge acquisition but also a change of representations regarding teaching practices the students have known as pupils and which they tend to reiterate in their trials. Pre-service teachers' beliefs can be well established and tenacious (Holt-Reynolds, 2004).

2.1.2. *Writing to Construct Autonomous Coherent Thought*
We postulate that reflective writing can function as another mediation tool, extending social interactions and debates so that real transformations can be consolidated.

In the Vygotskian perspective, writing appears as a powerful sign system sustaining consciousness development – in Vygotsky's terms, consciousness and thought are similar: written language is linked with a consciousness' intervention and with the presence of an intention. This thesis motivates us to conceive writing tasks in teacher training as ways to learn and develop themselves. It means that writing not only represents a form of thought verbalization, but, more importantly, a real metacognitive monitoring of thought (Sarig, 1996: 166): the principle of mediation then becomes an auto-mediation, or self-regulation principle. It means that the subject engaged in the writing act has to try to build coherent thoughts he should be

able to communicate and defend. Building such coherence constrains him/her to negotiate meanings despite the polyphony of others' voices and his own disagreements regarding these voices.

For us, it implies that the learner must be first guided to engage him/herself in an attentive work on words to express his/her feelings or ideas and to manipulate concepts from a creative and critical manner. Through this work, the subject has to be invited to become involved in a deep process of knowledge interpretation, estimation, appropriation, re-elaboration and communication. He/she can learn that speech enunciation vehicles human capacities to reflect upon reality, to think, learn and build oneself as a socially situated subject, who is able to pretend to exhibit valid discourses – if we use terms inspired from Habermas' theory of communicative action (Habermas, 1984).

2.1.3. *A Transactional Process*
Students' reflective texts reveal diverse forms of this difficult but also often lightening reshaping process. These texts are like traces of their development at different moments (Wagner et al., 1994). It is very helpful to keep the most significant traces in portfolios. Finally, they can assess their own development and process of knowledge transformation. Portfolios reflect what Rosenblatt termed a "linguistic-experiential reservoir": "We make sense of a new situation or transaction and make new meaning by applying, reorganizing, revising, or extending public and private elements from our personal linguistic-experiential reservoirs". Portfolios represent this "dynamic system of meaning, in which the affective and intellectual unite" (Rosenblatt, 1992: 60–61).

So, most of the texts written by each student are not used as academic products but as "reflective drafts"; in other words they are transitional texts born in specific moments and spaces. With this in mind, knowledge elaboration appears as a cyclic, critical, transient, and endless process. Such an idea is referred to as the Peircian concept of semiosis (Peirce, 1931–1958).

All these theoretical options give a central place to the trainers' role. It constitutes a dialogical work, aimed at the subject's development through language use. One powerful idea from Vygotsky is that consciousness represents a social dialogue between the human subject and himself, through the words he appropriates after he has been trained to use them in social interactions. At a deeper level of reflection, words are interlinked with complex mental operations from which each subject not only internalizes historically built social meaning, but also elaborates and transforms his/her relationship with reality and culture, and his/her comprehension of concepts: any meaningful word is like a microcosm of human consciousness, said Vygotsky.

2.2. *Tools and Goals of Training*

We will focus on the writing activities we suggested in the training. As mentioned above, they were systematically interlinked with diverse collective events (see Appendix A). According to Vygotsky's idea of a unit of cognitive and affective features in the dynamics of system meaning, the individual written tasks tended to stimulate a continuum between a self and authentic expression and a more distant and conceptual discourse. We borrowed the term "stance" from Rosenblatt (*ibid*.), to designate the dominant attitude that the writer can activate in the linguistic-experiential reservoir: "the dominant stance determines the proportion of public and private aspects of sense that will be included in the scope of the writer's attention" (Rosenblatt, *ibid*.: 1073).

2.2.1. *A Discursive Triangle and a Reflective Square*
Students were always encouraged to reflect and express their ideas from three possible speaking stances (the discursive triangle), that can take variable positions on the continuum from private to public, affective to cognitive and subjective to objective aspects: "I" as a student; "I" as a person; and "I" as a future teacher. Those stances are more or less associated with three different positions in time: the student learning now; the student as a person who has particular values and beliefs inherited from his/her social and family history; and the student as a future teacher who is projecting him/herself in the future, with his/her projects.

A large set of personal writing activities, in which the three stances and their diverse positions can be assumed, stimulated four aspects needed for a reflective approach: autobiography, knowledge and proficiency self-assessment, critical and creative manipulation of knowledge, and self-guidance (the reflective square).

Autobiography. The first key objective is that everybody should be able to develop a deeper understanding of themselves as a written language user. The understanding of one's own story, as a reader and an author, is supported through tracks of that story: first memories of learning to read and write; reading notes, previously written texts about a variety of needs; first appreciated books, first written texts; well or badly-graded compositions (Wagner, Brock & Agnew, 1994). The autobiographic stories that are written from those testimonies help the student to become aware of his/her concepts and of his/her personal representations of the written language, depending more or less on his/her personal and scholastic relationship with it. Knowledge appears then as a narrative and historical phenomenon (Clandinin & Connelly, 2004) embedded in the future teachers' representations, that can influence their future actions, or that can be transformed.

Self-assessment. The autobiographic approach helps to take into account the role of values, beliefs, attitudes and motivation in literacy learning. It also helps to initiate challenges to oneself and set particular goals (like working on a certain type of text, increasing one's vocabulary, reading various types of texts, dealing with one's spelling difficulties, and so on).

Self-assessment is also stimulated by regularly applying the "writer self-perception scale" test, as adapted from Bottomley, Henk, and Melnick (1998). This Likert scale measures self-perception as a writer in terms of progression, observational comparison, social feedback and physiological states – that we translated by "emotional states".

Creative handling of knowledge. Another important objective is to stimulate a "creative handling of knowledge" (Sarig, 1996) through writing. This leads us to propose various activities using written conceptualization (about literacy, about the portfolio as a tool that can be used in primary school, about initial learning of reading/writing, and so on) and about their training and didactic experiences. A typically requested process is to first take stock of one's prior knowledge, then to devote oneself to research works and cooperative exchanges concerning the themes dealt with, and finally come back to personal writings and note the changes which have occurred. In that way, the requested writings often operate as transitional texts, as proof of the progressive construction of thought and knowledge.

Occupational self-guidance. The last writing activity that each student develops concerns occupational self-guidance. During practical experiences in primary school classrooms, the future teachers are encouraged to note significant facts (children's difficulties in writing or reading, their own organization of mother-tongue activities, and so on), produce hypotheses and write down their decisions on specific points (about their attitudes and reactions when confronted with such or such a problem, the support they provide to such or such a child, and so on).

Finally, at the end of each year, a co-evaluation takes place: what is the student's particular process? Which goals has he/she reached, particularly in the field of reflection and modification of personal knowledge and representations? In this field, how does he/she use language? What are the correctness, relevance, complexity, readability (categories used by Sarig, 1996) levels which appear in his/her texts? A grade, quite representative of the student's level of investment in the self-construction process, is negotiated, and personalized goals are commonly set up for the following year. At the end of the final training year, students are requested to narrate their training in the area of literacy. This story offers an important tool to support the last evaluation.

3. Which Appropriation Pathways Do Students Take?

3.1. *Research Methods*

After the intervention, we wondered about proof to demonstrate that students had really entered into the process of professional knowledge appropriation, which is both anchored in self-awareness and in the capacity to take a distance. The challenge was to point out cognitive and linguistic markers revealing this appropriation process in the reflective texts.

Before analyzing portfolios, we had to synthesize our data (Huberman & Miles, 1991).

3.1.1. *Cluster Distribution*

To solve this problem, qualitative "cluster" analysis was done. It consisted of distributing the students – 18 students stayed with the training within the framework of the intervention-research until the end – in groups (otherwise known as clusters). Discriminative criteria were established through reducing, step by step, an initially large variety of factors beyond a simple comparison in terms of linguistic skills.

The most differentiating factors emerging first were: the responses that students gave to the successive tests "Writer self perception scale"; the values they expressed toward literacy in their autobiographical texts; the objectives they decided to attempt; their progression in tasks oriented to a critical and creative handling of knowledge, from the diverse texts of conceptualization to the final text "My story of training"; and their involvement in the collective and individual activities. The portfolios were also discriminating sources by the manners they were invested (organisation, richness, rubrics, summaries, comments, etc.). We appreciated (through qualitative notes) and measured (through quantitative scores) students' levels of attitudes from the Writer Self Perception Scales, objectives, enunciative/semiotic/reflective abilities (to provide and argument a personal point of view saying "I", to engage oneself and evolve in a quest of sense, relying on theory and practice and experience, taking distance regarding one's practices and beliefs, etc.), involvement in the activities and quality of their portfolio, as well at different moments during the training as in terms of progression from one year to another.

Finally, we noticed that the most discriminative criteria were: the "emotional states", or degrees of security and insecurity in writing tasks; the existence or not of a qualitative leap visible in the final text ("My training story") where students showed whether they had more or less acquired a capacity to integrate theories and concepts and a critical attitude in their narratives about experiences and practices; and the degree of participation

in the collective activities – which was reflected in one's personal reflective texts contained in the portfolio.

Five clusters were identified. Briefly, students (5 out of 18) of cluster 1 were emotionally "neutral" in written tasks and initially entertained a traditional vision of literacy's teaching (formal, grammar and spelling training); they progressed slowly in revising their representations; they showed a great level of involvement in the collective activities. Students (4) of cluster 2 felt dramatically insecure in written tasks, avoiding those as often as possible, that had a consequence on their involvement in using one's portfolio's; but they were really interested in creating innovative activities to experiment in primary classrooms and were very active in preparing those with peers. Students (4) of cluster 3 felt insecure toward to writing at the start of the training but became quickly more sure and motivated (directly after activities such as writing workshops). They were quite sensitive about a high level of literacy teaching, highly engaged in discussions about it, and constructive in preparing innovative lessons. Students (3) of cluster 4 felt deeply motivated by written language. They started directly with original representations about literacy's teaching that they conceived as a way of making children happy – which recalls the metaphor of literacy as a "state of grace". Their investment and the quality of their reflective texts and portfolios were excellent. Finally, the scores of students (2) of cluster 5 in emotional states were very low, so their level of investment in interactive and personal tasks; and their level of reflection seemed poor and did not evolve during the three years of training.

We also noticed that the criterion of reflexivity concerning literacy's teaching had a common connotation between the clusters (except in cluster 5): a great majority of students worked thoroughly to benefit from the training to orient their professional development in relation with innovative ways. But the analysis showed that their methods of reflection and knowledge appropriation were really different. The deeper discourse analysis would confirm that these differences were related to their relationship with written language and their capacity to reinforce or repair this relationship.

One student per cluster was selected. The criterion of choice was that the portfolios which would be analyzed should be the most complete.

Portfolio texts were analyzed according to three main categories concerning: the proposals (or "topics", e.g.: Barthes, 1970) chosen by the students during the three years; the different kinds of reflective operations visible in the texts (Sarig, 1996), and the linguistic ways of "enunciation" (Benveniste, 1966, 1977; Bronckart, 1996; Kerbrat-Orrechioni, 1999) – or speech-production.

This grid was first applied to the totality of portfolios, aiming both to confirm the clusters' distribution and to complete the main categories for the

discourse analysis. We specify them, by referring to diverse theoretical
principles.

3.1.2. *Three Main Categories for Discourses Analysis*

3.1.2.1. *Topics.* Inspired by Barthes analysis of S/Z (1970), first we followed
the ways of constructing meaning, from a semantic point of view. It
consisted in analyzing the proposals contained in each text and the network
of meaning that appeared throughout the texts. This technique was quite
simple. It permitted us to understand how students had dealt with the
various themes the course had given them, through peer interaction, aca-
demic exposures, scientific texts, practical experiences description, and so
on. This first step allowed us to form a hypothesis: all the discussion points
which seemed difficult to the students were treated in their texts; so, students
had had to deal with conflicts.

These conflicts can be linked back to three dimensions: epistemic,
affective, or practical, that is to say, when they raise questions or doubts
about prior knowledge or beliefs (epistemic), about personal values or one's
perception (affective) and about the various ways of doing (practical).

So, means of appropriation seem to be strongly influenced by social
interaction. This may appear simple and trivial if only taken at the
proposal level, but we can transcend our claim in a heuristic way by
saying that conflicts play an important role in building personal dis-
courses and even speech production. Mental operations – such as pon-
dering upon an idea – and linguistic markings of subjective speech – such
as expressing an idea using the pronoun ''I'' – consist in trying to create
coherent discourses, dealing with a lot of contradictions between what ''I''
think and what the others say. To resolve these contradictions, the
thinker–speaker has to imagine an intermediate way, elaborating his/her
own discourse.

So, we had to refine our analysis of mental and linguistic operations in
order to describe how students construct new knowledge and beliefs through
writing, by both taking conflicts into account and respecting their frame of
thinking and speaking.

3.1.2.2. *Reflective Operations.* According to Sarig, ways of appropriating
and constructing knowledge through language, and more specifically
through writing, involve both the literacy acts learners engage in while
acquiring and creating knowledge and the learning products, meaning ''the
academic nature of final (or best) pieces of knowledge'' (Sarig, 1996: 170).
Thus, Sarig proposes a model of assessing the processes and products
looking into the nature and final quality of the particular academic literacy

underlying them. This model, that the author calls an "Academically literate learning goals model", "allows a view of a given learning from three perspectives: the learning Aims toward which learners work, the Types of Reflective Acts they engage in during the learning event and the Focus of these acts"[3] (*Ibid.*: 170).

We used Sarig's model to describe the reflective acts students tended to engage in: in our intervention, these acts were used more or less consciously because students were often asked to write spontaneously after group works or lectures and to respond to answers like "what have you learnt after (the task, the lecture...)? What's different now, regarding your prior knowledge, what does it mean to you? What have you learnt about your own literacy, or about learning and teaching literacy?

Learning **Aims** consist, for example, in treating contents that aim for understanding, appropriation or reconstruction. **Types** of reflective acts are, among others, planning, assessing, diagnosing one's message; deliberating, judging, reformulating, analyzing, summarizing, questioning other's ideas; connecting different assertions; re-conceptualizing one's beliefs; going beyond an idea and reflecting on its theoretical or practical implications, and so on. From this, we distinguished three categories of reflective acts:

(a) Acts concerning the **process** of production: the thinker–speaker plans the steps for tackling ideas, evaluates what he/she already has produced, makes his/her reasoning pattern explicit, and so on.
(b) Actual acts of **production**: evocating objects, reflecting on them, judging their intellectual or practical value, incorporating them in a framework of ideas, and so on. Such a list is, of course, far from complete; the important aspect is that knowledge is being treated at various levels: a producing act only consisting in repeating one's or other's ideas without criticizing them belongs to a lower reflective level than when reflection is involved. Transforming knowledge represents a high mental exercise.
(c) Regulation acts within the process of production: such operations reflect self-questioning while producing ideas about one's ways of thinking, feeling, speaking, or dealing with upsetting ideas or with training events. These acts participate in the production process when they help the thinker–speaker (or thinker–writer) evaluate his/her relationship with the knowledge he/she is tackling, as well as go beyond the cause of disturbance.

So, through diverse types of reflective acts, the **Focus**, towards which the acts are turned, does not only concern content. The writer can also question

---

[3] Words underlined by the author.

the text's relevance, structure and coherence. He/she can focus on him/herself, asking personal questions about ideas, feelings, or difficulties.

Aims, types of reflective acts and focus are three interlinked dimensions. For example, if the goal is to take stock of one's prior knowledge before discussing a new concept, it begs a diagnosing operation which itself needs a memorizing and clear formulating effort before going further. On one hand, this implies the decision of revisiting one's prior knowledge. On the other hand, a focus on the relevance of one's message can force the writer to further question an idea. In the same vein, enlightening research has been done in the area of the psychology of writing cognitive processes (Scardamaglia & Bereiter, 1998; Schneuwly & Bronckart, 1985).

3.1.2.3. *Speech-Production Acts.* This part of the analysis lies in theories related to subjectivity in language, in other words, subject's self imprinting in one's discourse (Benveniste, 1966, 1977). This theoretical framework encourages us to see language through its reflexive dimension: any utterance refers definitely to the world reflecting the speaker's act which carries it.

Diverse subjective tracks in discourses were considered, such as the deictics, anaphorical markers, cohesion shifters, use of genres' characteristics, and rhetoric figures (such as metaphors). An essential way to evaluate how subjects not only are positioning themselves through language but mostly how they are dealing with propositional contents, lies in the **modalities** they employed while constructing a singular framework of ideas, concepts, beliefs, and values they think beneficial in becoming efficient teachers. Modalities represent important linguistic operations through which the speaker stamps his personal comment – through specific sentence structures, adjectives, adverbs, and so on... – on diverse proposals offered by the scientific texts used in the training, the teacher's lectures and group discussions. Modalities also mirror the students' attitudes to these contents in terms of resistance or epistemic, practical or affective difficulties. Inspired by Bronckart (1996), we identified four types of modalities: logical (consisting in elaborating general laws, ideal rules – in other words, the "what's true" order); deontic modalities (oriented toward values and norms, in other words – "what's good to do and to think"); pragmatic (meaning "what must be done"); and appreciative (meaning "what seems good, valuable, true, good, fearful...", or not, for me).

This is illustrated through a little excerpt in Appendix B, showing some mental and speech-production acts. Of course, the tracks of subjectivity in language are strongly different from one language to another, so we avoided translating the student's text we chose as an example.

Summary: the three main (interlinked) categories used for evaluating the appropriation process (pieces)

I. Topics	
Which topics do the students tackle? Which statements do they propose? What is their degree of "veritability" (or correctness), relevance, complexity, creativity, "communicativity" (or readability)?	
II. Reflective operations (Sarig, 1996) (Aims/operations/focus)	III. Speech-production (Bronckart, 1995, 1996)
• Production process (cognitive dimension):	Stances (taking position):
Planning, monitoring, evaluating one's production process.	"I" as student, "I" as person, or "I" as teacher.
• Production of ideas:	Modalities:
Dealing with other's ideas and with scientific concepts, elaborating one's own ideas: reflecting, judging, explaining, interpreting, transforming, linking, discussing, and so on.	Choosing words to say: What's fair? What's true? What's good? What's relevant? For oneself, for children, for education, for society ...: values, convictions... Using characteristics of different types of texts
• Regulation process (affective dimension)	
	Using rhetoric
Expressing doubts and internal conflicts, self questioning, self evaluating, and so on.	Creating discursive coherence
	...
How do students deal with, on paper, the pressures (affective, epistemic, and pragmatic) they experience during training interactions? How do they use written discourse to evoke personal standings?	

3.2. *Results*

The first analysis already showed significant differences between the pathways students took to think. The following detailed analysis of the imprints left by the five students (chosen out of the clusters we had established) in their written discourses confirmed these differences. The construction of meaning strongly depended on their emotional states concerning the training

proposals and writing activity. We established that four main "reflexive pathways" can be used for knowledge and personal beliefs appropriation through the training proposals in order to lay out one's own professional project concerning the teaching and learning of literacy. A fifth way relates to a resistant attitude toward training. These pathways can be called:

– *Comprehensive*: the students really tried to understand and construct knowledge, using the written language to elaborate concepts and original questions (cluster 1);
– *Prescriptive*: the students tended to adhere to training proposals useful to their professional future practice.
– *Pragmatic*: the students thought and wrote about what they learned in the field to build a teaching project;
– *Critical-heuristic*: the main goal the students set for themselves was to develop skills and knowledge on both a personal and a professional level;
– *Resistant*: the students had difficulties engaging in tasks of knowledge construction through writing. They used strategies to avoid these tasks and stayed at a low level of reflexivity.

While considering the five clusters let us now summarize. Each cluster is representative of significant tendencies, although each student has his/ her own way of thinking and the five reflexive ways can be more or less represented in the different groups. It is also necessary to specify that we have not classified students according to low and high levels of thinking and writing. All students can develop different ways of appropriating knowledge beyond their spontaneous tendencies. We'll discuss this in the conclusion.

3.2.1. *Comprehensive Way*
Although they had some difficulties developing a systematic framework for expressing themselves at the beginning of the training, and at that point they possessed some formal representations of writing (they only considered it under formal aspects, like having a good spelling), the students of this group became more and more able to deepen their reflection. Their first point of view changed into a more complex understanding about what learning and teaching literacy really means. A strong source of this change in point of view is the fact that they experienced themselves as role models for motivation; sharing a number of reading and writing activities with peers, they increased their level of commitment and motivation. Reflecting about their personal evolution during the training activities, they built a motivation-theory to think over the influence they have on the pupils' literacy acquisition. We underline the role of the students' commitment level in literacy activities, because it represented an essential key in understanding why they

were able to improve their prior beliefs. Because they were interested in the training, they systematically began their texts by reformulating – and following a narrative design – the tasks' targets and steps ("*first, the trainer wanted us to ...; the task we had to do consisted in...*"). They did not hesitate to point out their feelings during the activities ("*in the beginning I felt anxious but progressively I understood what I was learning and improving...*"). Most importantly, writing workshops and literary circles were sources of agreement for them. The activities they created for practical experiences in primary school classrooms were based on these types of didactic actions, by a kind of homological principle. So their main appropriation key was practical: first, they reflected on the tasks they accomplished and on their feelings and experiences during the training, in order to formulate theoretical concepts. They stamped their personal comments on the training contents through appreciative and deontic modalities. Their discursive stances were complete: they were able to speak as "person", "student", and "professional".

3.2.2. *Prescriptive Way*

These students had acquired, a long time ago, a strong feeling of linguistic incompetence. They had a very negative perception of themselves as readers and writers. Throughout the training, their attention above all was focused on a particular professional target, which was to "*avoid that children live what I lived: teachers in secondary courses and even in primary courses said what the pupils must understand in a text and we had no right to have a personal opinion about it; my writings were covered by red pencil's negative commentaries... My mother-tongue's teachers disgusted me definitively to read and write. I'll always have difficulties to write, and I think it cannot change. Never*". (Peter). Their relationship with time revolved more around their vocational future, so they mostly employed the professional stance. Therefore, the texts they appreciated to write a little more than others were lesson preparations. They used many justifications in the preparations. They used a lot of principles reproduced from the training activities, particularly from teachers. These texts used explicative more than narrative forms and were characterized by a lot of proposals marked by prescriptions for being a good literacy teacher – missing a more critical and analytic approach. Thus, their discourses' modalities were generally logical (*we must, it is necessary to, children need...*). We can say that the appropriation key is didactical, in a sense of general laws and tools for teaching differently according to what they knew as pupils. They didn't apply a homological principle, but had an attitude of agreement if the training responded to their hope for changing literacy teaching.

3.2.3. *Pragmatic Way*

From the beginning, the students gave themselves goals to improve their own literacy. They had good linguistic competencies. They developed a metacognitive attitude about their ways of learning and writing, and often wished to receive feedback on their progress. This student stance constituted the main key of appropriation through self-evaluation. They also evaluated whether the training activities helped them to learn and to progress. When they felt satisfied about this, they decided to transfer such activities to primary classrooms. So, as in the second cluster, they did not transform knowledge as much, rather, they reproduced teacher discourses and identified what this meant to their practice. When certain training activities perturbed them, they quickly concluded that what was difficult for them could not be applied in primary classrooms. It was not surprising that their modalities were most frequently pragmatic. Although they were committed to the tasks, their attitude was both distant and reproductive. The textual genre they preferred was explicative.

3.2.4. *Critical-Heuristic Way*

Students of this cluster had an optimal relationship with the written language that permitted them to "*escape, create, imagine, learn, think, revisit prior ideas and restructure my thoughts*" (Astrid). They were highly committed in the training tasks. They tended to analyze the tasks from multiple angles: goals, steps, difficulties, one's feelings when working with others or when writing, contents, professional implications, and so on. They constructed a more complex conception of teaching literacy: among others, they were the only students who relevantly conceptualized some pedagogical notions extracted from training, such as the role of the teacher as mediator, social interaction and writing. The homology principle was accepted, but with a more intellectual and critical position than in Cluster 1. The appropriation way was clearly more intellectual and epistemic than practical. These students developed the most mental and discursive acts throughout the three subjective stances. They used metaphors, narrative and explicative forms and tried to develop a scientific argumentation and transforming knowledge. Their discourses presented an interwoven network of modalities (appreciative, deontic, logical and pragmatic). We can see that they progressed more during the three years than other students, systematically using more the anaphorical system and the cohesion shifters.

3.2.5. *Resistant Way*

The two students of this cluster were definitely resistant throughout the training. Their commitment looked minimalist in peer-interaction and personal tasks (including the management of their portfolios which were the

thinnest). Because of their lack of involvement, we cannot easily measure their appropriation level. We must add that their practical experiences in primary school classrooms did not permit us to form a compensatory hypothesis, which would be that certain students prefer to learn from practice – and reveal through their action a good level of knowledge appropriation – than from intellectual tasks: the students in this group did not get involved in those experiences anyway. In their texts, the modalities were only appreciative, in a negative sense ("*I don't like...; I'm tired of using a portfolio*"). Their texts were not coherent; missing links between ill-matched ideas, they extracted from the trainers lectures or scientific articles. This was perhaps not a matter of thinking and reflecting abilities; in these two cases, the problem was that the students resisted activities that demanded their participation. What was intervening was their commitment and motivation, and, more importantly, a difficulty to form personal convictions from theoretical knowledge. It seems that the students did not allow themselves to create a subjective speech: they were only present in their discourses when criticizing the training: never saying "*my advice about this concept is that...*" is a self-defence strategy.

4. DISCUSSION

There are many ways to appropriate knowledge: understanding, criticizing, applying, discussing, and forming principles, rules or laws for teaching and making meaning. Among these, the transformation process is the most difficult. It certainly needs a good level of linguistic and discursive abilities. But this is not sufficient: as we have seen, the students in the first cluster were less competent on a linguistic level than those in the fourth cluster, yet they were able to progressively construct coherent beliefs to teach in a complex way. On the other hand, students in the third cluster were linguistically competent but not able to build a personal dialogue – they had a good comprehension of some of the suggestions offered in their training and only wanted to reproduce those in their future practice.

We would like not only to emphasize each student's relationship with language, but also the speaking stances they were able to take. For example, Peter (Cluster 2) showed real progress at the end of his training, as seen in his "training story". For the first time, he looked at his past with a greater sense of curiosity. He remembered other – more positive – experiences and told about how a secondary teacher helped him appreciate written language more by using refreshing poetic exercises for a whole year. At the end of the training, he also picked out poems and narrations he had written during the workshops despite the fact that he had told us he had not responded well to the tasks – he had in fact, but in private. So

he finally put his texts in his portfolio, allowing himself to show them and even to be proud of his production. His final training story is less prescriptive and more reflexive. We like to hope that the training finally gave him more confidence to be able to take distance from his experiences, to copy less and be more autonomous in his thinking. During the initial training, we tried to help each student with formative evaluations, writing them personalized letters, giving them advice supported by evaluation criteria (Appendix A illustrates this pedagogical strategy). To present it in a more theoretical frame, we tried to work with everyone in what Vygotsky calls the zone of proximal development.

The analysis that followed the intervention permitted us to define different ways of appropriation and to confirm that language represents an indispensable tool for building knowledge. We must avoid considering these means of appropriation from a perspective which would consist in definitively categorizing the students in individual reflexive profiles. On the contrary, we can postulate that all appropriation strategies can be learned by students. Every pathway has potential. A reflexive student should be able to use different perspectives – heuristic and critical, of course; but also prescriptive (with a reflection on consequences of prescriptions), pragmatic, comprehensive and so on. He would feel safe to take a position and he would be aware of the conflicts he is living during the training activities. All the clusters (except the fifth, where students take an escapist position) present different ways of dealing with conflicts which were lived more or less consciously. Teachers' trainers should efficiently formulate these conflicts with students, because it is an important way to create a self-coherent thought according to what's perturbing them – perhaps students of Cluster 5 needed more help on this point. If trainers help students acquire different ways of appropriating and adopting various speech stances, they can also give advice on how to use language in its multiple possibilities.

A final conclusion is that the stronger the commitment is, not only in individual but also in collective activities, the deeper the personal discourses are. In this perspective, teachers have a mediation role to play: student's socialisation represents a real factor for strengthening their capacity to use their subjectivity to appropriate knowledge. It necessarily implies helping the most insecure writers repair some broken links with language: those students told us that they had liked to read and write when they were young but that they had been disgusted – they often employed such strong terms in their narratives – by some teachers who entertained a hardly normative conception of good expression to the detriment of expression, communication and creativity.

In short, we claim that writing is a good support for learning and thinking, if it is accompanied by social interaction between peers and between future teachers and their own teachers.

5. APPENDIX A

TABLE A1

Peer interaction and reflexive writing: portfolios inputs (excerpts).

A 3 year program	Autobiography	Self-assessment	Creative and critical knowledge handling	Occupational self-guidance
Year I.	1.3. Autobiographical traces: what's my own reader/writer's story?	1.1. Writing and reading self perception scale (adapted from Bottomley et al., i.a. 1998): first use[a].	1.2. Personal responses (written) to texts written by well-known authors about reading and writing.	
1. What kind of readers and writers are we?			1.4. Peer interaction: what about our stories as readers and writers? What can I notice (what's common, what's different, what do my peers tell me, which questions do they ask me?).	
	1.6. Reflexive text (addressed to the teachers): I tell my story as a reader and writer. I evaluate my present skills. I set targets or goals for myself to improve my literacy skills (*)[b].			
2. Reading scientific texts together			2.1. "Jigsaw" reading activity: what do the scientific authors say about literacy? What does it mean? What's reading and writing? How can we motivate children? What are the social and pedagogical conditions favourable to becoming a reader, and so on? Collective synthesis.	

Table A1. Continued

A 3 year program	Autobiography	Self-assessment	Creative and critical knowledge handling	Occupational self-guidance
			2.2. Reflexive text: what did I learn about literacy, from the scientific texts we discussed? How does it affect my job as teacher?	
3. Becoming writers: creative and narrative writing workshops	3.4. Did I write poems or fictional stories earlier in my life? At school or at home, for a public audience or for myself? How did I feel?	3.2. How did I feel when I wrote a fictional story? Which were my difficulties? 3.3. What did my peers advise me to do? Did it help me to improve my text? Why? What's the difference between my first and final drafts? What's my opinion about my text? About peer writing interaction?	3.1. How do authors like Swift, Michaux, Carroll or Calvino create fantastic worlds? How do they use language? What's their creative writing? How do they tell the story, create characters, manage the plot, etc.?	3.5. How could I adapt such writing activities for children?

3.6. Construction of reading and writing lessons (individual and group) under teachers' guidance.

Experiences in primary school classrooms. Visioning videotapes after the experience: self assessment and feedbacks from peers and teachers.

3.7. Reflexive text (addressed to the teachers): I tell a significant moment of my activity. What are its issues and results? What did the children learn? How can I observe it? Were the pupils motivated? What helps me to say whether they were motivated or not? (*)

Year II.

4.4. How do I view my relationship with reading and writing now? Did I reach the goals I set for myself last year?

4.3. Looking at my own portfolio: what does it tell me about my progress? What did I learn last year?

4.2. How can we use portfolios in primary schools?

4.1. Creating together conceptual maps with the key-word "literacy": meaning? Conditions? Characteristics?

4. Becoming literacy teachers: what does it mean?

What do my peers say about themselves? How did they manage their own portfolios? How did we gain knowledge?

What can be the portfolio's issues?

Group work: checking information about literacy development and conditions in diverse scientific and pedagogical texts. Collective synthesis.

Personalized letter from the teacher: what does your portfolio tell us *at this moment?* Our questions, advice and impressions.

4.5. Reflexive text in four parts: (1) My responses to the teachers' letter (self-assessment). (2) My definition of the term "literacy" (creative and critical knowledge handling). (3) My evaluation about the text I've written about literacy (Is it relevant, complex, creative, communicative, authentic?) (4) My teaching goals in the literacy area (self-occupational guidance). (*)

After this important step, students create and experiment other reading and writing activities for primary classrooms. The examination contains a discussion phase about those activities on according to what each student placed in his/her portfolio.

Table A1. Continued

A 3 year program	Autobiography	Self-assessment	Creative and critical knowledge handling	Occupational self-guidance
Year III.	// 4.4.	// 4.3.	5.1. Analyzing our representations: what about my first time reading and writing?	5.2. How will we teach literacy following a curriculum?
5. Becoming reflective practitioners			Checking information about cognitive R-W processes. Collective synthesis.	Elaborating and evaluating our practices with the "psychological components of literacy" (as adapted from Bruneau, 1997). Reflecting-in-action: teacher's journal, notes, reflection guide, and so on.

5.3. "My training story in the area of literacy": which reader and writer am I now? What about my trajectory? Which are the main steps? Which goals or objectives did I achieve? What do I presently know about literacy and its scholastic development? Which representations or previous knowledge have changed? Now, what is my project as teacher? ... (*)

[a]This scale has been administered at three points, before the end of the 3rd year.

[b](*) These kinds of texts are followed by a written feedback given by the teachers.

This narrative text justifies the final examination. During this oral one-to-one examination, teachers also ask the student some questions to deepen such or such aspect or to discuss representations and beliefs. Finally we use a list of "reflective" skills to certify the students' skills.

6. APPENDIX B

TABLE B1

Excerpts from a case analysis: Astrid (Mental and speech-production actions).

"*Parler écrire, penser écrire, écrire sur l'écriture*" ...
(*original reformulating of the task*) *me donne l'envie de prendre la plume.*
Ecrire sur quoi ? Comme l'appétit vient en mangeant, l'idée viendra sans doute en écrivant. Réfléchir sur son "statut", sa position
de lecteur mais surtout d'écrivain implique d'écrire, de fouiller dans ses anciens textes, d'en parler avec d'autres, d'écrire sur ces réflexions
(sentence appearing as a general assertion – logical modality: she integrates our goal as something that must be done) (...)
2. Expression of internal conflict: can one be confident enough to show personal texts to peers and to teachers (appreciative modality)?
Mais c'est tellement difficile de montrer ses textes, ses lettres à quelqu'un qu'on connait peu (...)
3. Deontic modality about the role of confidence during training; the quest for a rule is expressed through a metaphor: confidence can
only be built very slowly, like a bird builds its nest:
Pour moi, la confiance ne s'attrape pas, elle se construit très lentement (...) *Comme un nid d'oiseau, elle est formée de fines brindilles.*
Quand tous ces éléments sont mis ensemble, c'est solide. Mais s'il y a un petit coup de vent, tout tombe à terre et... se casse. (...)
4. In addition, Astrid evaluated her own position regarding the context of the task and judged the task's relevance (focus on contents
and on herself as learner)
Voici un texte que j'ai écrit non ce 3 février, mais le 30 janvier au retour de l'école. Je pense qu'il résume assez bien mes sentiments, mes
impressions face à ce module Malgré cet obstacle, je trouve (self-positionning through the verbs and the pronoun "I") *ce module assez*
intéressant au niveau de la connaissance de soi-même (appreciative modality) (...)
5. Articulation between appreciative and deontic modalities:
... et puis écrire sur quoi ? J'aime écrire, mais je n'aime pas montrer, parler de mes textes à d'autres. J'aime surtout écrire quand il n'y
a pas de contrainte, quand je ne suis pas obligée d'écrire (exemple: le texte ci-avant) (autoevaluation, self-expression: regulation of
production process). *Je trouve, de ce fait, les textes meilleurs quand ils sont spontanés. Ce que j'ai appris sur moi-même, je le savais déjà*
un peu avant, c'est-à-dire que j'aime lire des textes qui ne sont pas "finis" (...)
6. These operations focused on herself were followed by the elaboration of a proposal about what writing can allow a person to do for
him/herself and for others (practical modality):

TABLE B1.

Continued.

... c'est-à-dire des textes qui portent à réfléchir, des textes qui sont le tremplin pour d'autres discussions, qui impliquent un questionnement futur, qui contiennent des mots qui ne veulent pas tout dire, qui permettent à l' imagination de se développer, enfin permettent à l'être... d'être!"
This "topic" will be frequently treated by Astrid in her next texts, moving progressively toward a strong professional-project centred on the role of writing in primary schools.

REFERENCES

Bakhtin, M.M. (1981). *The dialogic imagination.* Austin: University of Texas Press(M. Holquist, Ed.).

Barthes, R. (1970). *S/Z.* Paris: Seuil, Points.

Benveniste, E. (1966). *Problèmes de linguistique générale. Tome 1.* Paris: Gallimard.

Benveniste, E. (1977). *Problèmes de linguistique générale. Tome 2.* Paris: Gallimard.

Bottomley, D., Henk, W. & Melnick, S. (1998). Assessing children's views about themselves as writers using the Writer Self perception Scale. *The Reading Teacher*, *51*(4), 286–296.

Bronckart, J.P. (1995). Theories of action and speech. In J.V. Wertsch, P. Del Rio & A. Alvarez, (Eds), *Sociocultural studies of mind* (pp. 75–91). Cambridge: University Press.

Bronckart, J.-P. (1996). *Activité langagière, textes et discours. Pour un interactionisme socio-discursif.* Neuchatel: Delachaux et Niestlé.

Clandinin, D.J. & Connelly, M. (2004). Knowledge, narrative and self-study. In J.J. Loughran, M.L. Hamilton, V.K. LaBoskey & T. Russell, (Eds), *International Handbook of Self-Study of Teaching and Teacher Education Practices: Vol. 1* (pp. 575–600). Dordrecht, Boston, London: Kluwer Academic Publishers.

Cole, M. (1995). Socio-cultural–historical psychology: some general remarks and a proposal for a new kind of cultural-genetic methodology. In J.V. Wertsch, P. Del Rio & A. Alvarez, (Eds), *Sociocultural studies of mind* (pp. 187–214). Cambridge: University Press.

Gambrell, L.B. & Almasi, J.F., (Eds), (1996). *Lively discussions! fostering engaged reading.* Delaware: International Reading Association, Newark.

Guthrie, J.T. (1996). Growth of literacy engagement: changes in motivations and strategies during concept-oriented reading instruction. *Reading Research Quarterly*, *31*(3), 308–331.

Guthrie, J.T. & Wigfield, A. (2000). Engagement and motivation in Reading. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson & R. Barr (Eds), *Handbook of reading research*, Vol. III (pp. 403–425). LEA.

Habermas, J. (1984). *The theory of communicative action: Vol. 1, Reason and the rationalization of society.* Boston: Beacon (T. McCarthy, trans.).

Harris, T.L. & Hodges, R.E., (Eds), (1995). *The Literacy Dictionary*. *The Vocabulary of Reading and Writing*. Newark: International Reading Association.

Hiebert, E.H. & Raphael, T.E. (1997). Literacy and educational psychology. In R. Calfee & D. Berliner, (Eds), *Handbook of educational psychology* (pp. 550–602). New York: MacMillan Publishers.

Holt-Reynolds, D. (2004). Personal history-based beliefs as relevant prior knowledge in course work. In J.J. Loughran, M.L. Hamilton, V.K. LaBoskey & T. Russell, (Eds), *International handbook of self-study of teaching and teacher education practices: vol. 1* (pp. 343–367). Dordrecht, Boston, London: Kluwer Academic Publishers.

Huberman, M. & Miles, M.B. (1991). *Analyse des données qualitatives*. Bruxelles: De Boeck.

Kerbrat-Orecchioni, C. (1999). *L'énonciation*. Paris: Armand Colin.

Lyons, N. & Freidus, H. (2004). The reflective portfolio in self-study: Inquiring into and representing a knowledge of practice. In J.J. Loughran, M.L. Hamilton, V.K. LaBoskey & T. Russell, (Eds), *International handbook of self-study of teaching and teacher education practices: vol. 2* (pp. 1073–1107). Dordrecht, Boston, London: Kluwer Academic Publishers.

Mahiri, J. & Godley, A.J. (1998). Rewriting identity: social meanings of literacy and "re-visions" of self. *Reading Research Quarterly*, *33*(4), 416–432.

Mc Mahon, S. & Raphaël, T., (Eds), (1997). *The book club connection*. New York: The Teachers College Press.

Moro, C. & Schneuwly, B. (1997). L'outil et le signe dans l'approche du fonctionnement psychologique. In C. Moro, B. Schneuwly & M. Brossard, (Eds), *Outils et signes. Perspectives actuelles de la théorie de Vygotski* (pp. 1–17). Bern: Peter Lang.

Paulson, F.L., Paulson, P.R. & Meyer, C.A. (1991). What makes a portfolio a portfolio? *Educational Leadership*, *48*(5), 60–63.

Peirce, C.S. (1931). *Collected Papers*. Cambridge: Harvard University Press.

Rogoff, B. (1995). Observing sociocultural activity on three planes: participatory appropriation, guided participation, and apprenticeship. In J.V. Wertsch, P. Del Rio & A. Alvarez, (Eds), *Sociocultural studies of mind* (pp. 139–164). Cambridge: University Press.

Roller, C., (Eds), (2001). *Learning to teach reading. Setting the research agenda*. Newark: International Reading Association.

Rosenblatt, L.M. (1992). The transactional theory of Reading and Writing. In E. Ruddell, M.R. Ruddell & H. Singer, (Eds), *Theoretical models and processes of reading* (pp. 1057–1091). Neward Delaware: International Reading Association.

Sarig, G. (1996). Academic literacy as ways of getting-to-know: what can be Assessed? In M. Birenbaum & F. Dochy, (Eds), *Alternatives in assessement of achievements, learning processes and prior knowledge* (pp. 161–199). Boston/Dordrecht/London: Kluwer Academic Publishers.

Scardamalia, M., Bereiter, C. (1998). L'expertise en lecture-rédaction, in A. Piolat et A. Pélissier, *La rédaction de textes. Approche cognitive* (pp. 13–50). Neuchatel-Paris, Delachaux et Niestlé.

Schön, D.A. (1983). *The reflective practitioner. How professionals think in action*. USA: Basic Books Inc.

Schneuwly, B. & Bronckart, J.P. (1985). *Vygotsky aujourd'hui*. Paris: Delachaux et Niestlé.

Scribner, S. (1984). Lieracy in three metaphors. *American Journal of Education*, *93*, 7–22.

Smolka, A.L., De Goes, M.C. & Pino, A. (1995). The constitution of the subject: a persistent question. In J.V. Wertsch, P. Del Rio & A. Alvarez, (Eds), *Sociocultural studies of mind* (pp. 165–184). Cambridge: University Press.

Soares, M.B. (2000). *Literacy assessment and its implications for statistical measurement*. Paper prepared for the division of statistics, UNESCO, Paris.

Stetsenko, A. (2004). Tool and sign in the development of the child. In R.R. Rieber & D.K. Robinson, (Eds), *The essential Vygotsky* (pp. 501–570). New York, Boston, Dordrecht, London, Moscow: Kluwer Academic/Plenum Publishers.

Terwagne, S., Vanhulle, S. & Lafontaine, A. (2003). *Les cercles de lecture*. Bruxelles: De Boeck.

Tiernay, R.J., Carter, M.A. & Desai, L.E. (1991). *Portfolio assessment in the reading-writing classroom*. Norwood, Massachussets: Christopher Gordon.

Valencia, S.W., Hiebert, E.H. & Afflerbach, P.P. (1994). *Authentic reading assessment: Practices and possibilities*. Newark, D.A.: International Reading Association.

Vanhulle, S. & Schillings, A. (2004). *Former des enseignants compétents en lecture-écriture, interactions sociales, écriture réflexive et portfolio*. Bruxelles: Labor.

Vygotsky, L.S. (1987–1999). *The collected works of L.S. Vygotsky*. New York: Kluwer Academic/Plenum(6 Vols., R.W. Rieber, Ed.).

Wagner, C.L., Brock, D.R. & Agnew, A.T. (1994). Developing literacy portfolios in teacher education courses. *Journal of Reading*, *37*(8), 668–674.

Experimental Pedagogical Services
Université de Liège
Liège, Belgium

Present address:
Faculté de Psychologie et
  des Sciences de l'Éducation
Section Sciences de l'Éducation
Université de Genève
Bd du Pont d'Arve, 40
1240 Genève 4
Switzerland
E-mail: Sabine.Vanhulle@pse.unige.ch