

Creating Study Program for Teachers' Initial Education: ... and if Students' and Program Designers' Priorities are Divergent?

Georgios Stamelos & Panagiota Evangelakou

University of Patras, Faculty of Social Sciences and Humanities, Patras, GREECE Department of Educational Sciences and Social Work

Received 27 August 2019 • Revised 14 November 2019 • Accepted 20 November 2019

Abstract

Nowadays, policy makers and scientists are promoting the idea that students should be involved in shaping their curriculum, as an essential dimension of student centered learning. After a brief discussion of this idea, we attempt to uncover which competences the students consider to be important. For this, we carried out relevant research in a Department of Primary Education in Greece with students in the final year of their initial education. The material used comes from the Tuning program. The research results reveal that students prioritize the competences that are directly linked to the school classroom, the act of teaching and school matters and place less importance on competences which are considered significant by the specialists and the policy makers, according to the specific bibliography. It seems that the students' beliefs are more pragmatic and based on their previous school experience. However, this doesn't facilitate innovative interventions and adjustments to new developments and trends. So, the question posed is: in the case of divergence between specialists and students regarding the curriculum, how could the issue be resolved?

Keywords: student-centered learning, learning outcomes, students' beliefs, teacher education.

1. Introduction

This paper emerges from the demand for the active participation of students in the shaping of the study program in a student-centered learning approach based on learning outcomes. The aim of the text is not the negotiation of whether a student can or cannot evaluate his study program. The truth is in any case that despite the provisions of the student-centered learning approach it is not usual for a student to co-shape the study program although all the more he is being asked to evaluate the teaching. Indeed, the international bibliography is extremely rich while evaluation tools have been developed with increased specialization (for example, for undergraduate courses, for postgraduate, and so on) (March, 1987; Marsh et al., 2002; Trigwell & Dunbar-Godder, 2005; Corbalan et al., 2013). In addition, this evaluation is often taken into account in the teachers' professional development, as has happened for example in Greece since 2011.

Focusing on our subject, teacher education has never ceased to be a subject of discussion, as much amongst specialists as amongst policy makers, given its importance. Of

© **Authors**. Terms and conditions of Creative Commons Attribution 4.0 International (CC BY 4.0) apply. **Correspondence**: Georgios Stamelos, University of Patras, PTDE, University Campus Gr-26504 Rion Patras, GREECE. E-mail: <u>stamelos@upatras.gr</u>.

course, it is far from certain whether the two sides are always coordinated and in harmony as much in terms of their outlook on teacher education, as in terms of the methodology they envisage for its implementation.

- Policy makers and specialists demand for a new generation of teachers with new characteristics.
- Students' beliefs appear to be focused on a tradition view of teacher profession.
- This divergence creates a conflict within the student-centered learning approach.

In terms of the policy makers, the case of the European Union (EU) is perhaps interesting to the extent that although education is not a sector for EU policy implementation, the EU still possesses the means and the mechanisms of influence. For the EU, the initial training and professional development of the teachers can play a significant role in the development of new working conditions, skills and techniques (Eurydice Network Report, 2012). Consequently, the 'new', which implies changes and the need to adapt to new conditions, is important.

More specifically, the European Union has its own policies regarding teacher education. In fact, in the first strategic aim in the context of the program "Education and Training 2010" there was a specific axis whose subject was the "Improvement of Teacher Education and Training and Trainers". More analytically, the priorities are as follows (Stamelos, Vasilopoulos & Kavasakalis, 2015):

• The exact determination of the desired skills and adequate support for the teachers – trainers in order for them to meet the challenges of the society of knowledge through initial training as well as lifelong learning,

• The competence of teachers and trainers in all subjects and at all levels, and the attraction of individuals with professional experience in other sectors, to work as teachers-trainers,

• For the profession of the teacher to become more attractive.

With regard to the period 2010-2020 (European Commission, 2010), teacher education is to be found once again in the spotlight in the sense that one of the five strategic aims concerns education. In fact, the aim determines that by 2020 95% of children should participate in pre-school education, while the percentage of 15-year-old children with insufficient competence in literacy, numeracy and science, should be less than 15%. Since teachers are called on to play an active role for this aim to be implemented, their initial and continuing education is considered decisive (http://ec.europa.eu/eurostat/web/europe-2020-indicators). It seems that two requirements are highlighted: (a) the need for the determination of the desired skills and adequate support for the teachers – trainers, and (b) the need for the teachers to play an active role in order to limit learning failure as this is expressed in insufficient competences in literacy, numeracy and science of 15-year-old children.

The specialist researchers for their part appear to pose wider questions, which nevertheless include the previous policy objectives. Indeed, according to Cochran-Smith and Villegas (2015), the historical review on research related to initial teacher training can be summarized on three axes: (a) "the curriculum question", (b) "the effectiveness question", and (c) "the knowledge question". In their paper these researchers claim that two questions seem to be more intense nowadays: (a) "the policy question", and (b) "the learning question". Hence, they recommend that future research should focus on the link between teacher learning and student learning as well as on candidate teachers' beliefs and practices. The researchers' argument seems to be coordinated with the policy priorities to the extent that teacher learning concerns as much the content of studies, expressed in learning outcomes, as its effectiveness, in other words the ability of future teachers to play their role in the learning of all their students. However, the second part of the focus remains unanswered, since it can only be approached through the participation of the learners themselves and their evaluation of their own initial education.

This leads us to the next stage, which is the study programs that are offered by the universities as much in terms of their formation as in terms of their effectiveness (Puustinen, Säntti, Koski & Tammi, 2018). It is true that university programs on teacher education are under pressure in order to prove their effectiveness. So, innovation and rethinking programs are meaningful issues that attempt to design a learning framework by combining theory and practice (Anagnostopoulos, Levine, Roselle & Lombardi, 2018). Practice seems to be a central issue in the context of initial teacher education (DeGraff, Schidt & Waddell, 2015). Another main issue is the students' role in the program and the possibility for them to participate actively in the program (Aderson & Justice, 2015). The latter leads to the discussion on the promotion of student-centered learning and this in turn to the discussion on learning outcomes. Essentially, the issue is the creation of a new generation of teachers with different characteristics and teaching practices. This is important since research findings consistently show that teachers and teaching practices are the main factors that influence student achievement and as a consequence the learning outcomes too (JRC Science and Policy Report, 2015; Hattie, 2009; Creemers & Kyriakides, 2008; Seidel & Shavelson, 2007; Scheerens & Bosker, 1997). However, the aim of creating up-to-date teachers in the framework of student-centered learning passes through the medium of the activation of the students themselves regarding their study program. Consequently, it is important to seek their beliefs on the issue.

The previous discussions impel us to think that it would be extremely difficult and complicated for one to ask the students to define a mutually accepted, structured and coherent approach to their education based on the expected learning outcomes. Consequently, one should seek those existing approaches that presumably come from specialized authorities or the collaboration of specialists. For example, the United Kingdom's Quality Assurance Authority (QAA) has proposed the subject specific benchmarks for Educational Studies. The question that arises, in relation to such material, is whether a national case can be transferred as it is to another. Since the answer to this is by no means certain, our preference is to look for tools with a more European dimension and which need great acceptance and legitimacy. So, we were guided to the work of Tuning, of the well-known European program which by now has had a huge global impact. Within the framework of this program, whose aim was the determination of learning outcomes by scientific field, Education was included too, which was understood as made up of two pillars, Teacher Education and the Educational Sciences. This formation was due to the attempt at the inclusion of the two initial European curricula models, where on the one hand, we have countries where the two pillars co-exist (for example, Greece) and on the other, countries where the two pillars are to be found in two distinct curricula (for example, France). It is clear that the Tuning conception brought us closer to the reality in Greece. In addition, the Greek Quality Assurance Agency for the higher education institutions (HQA) recommends Tuning as a model within the framework of the accreditation procedure for Greek curricula.

So, Tuning proposes a list of generic competences for both pillars of the field of Education and two lists of specific competences, one for Teacher Education and one for the Educational Sciences. This struck us as exceptionally well adapted for the especial circumstances of Greek reality, which is why we decided that it is the most suitable tool to use. We will now go into more detail.

Consequently, the aim of this research is test experimentally how someone could try to search for the students' beliefs on their curriculum, and the evaluation as much of the curriculum itself as of the development of their own knowledge, competences and skills (selfevaluation). We are then interested in ascertaining which competences the students consider important. In order to approach our goal, a particular scientific field with distinct professional prospects will be needed, which will function as a case study. The Department of Primary Education at the University of Patras, which combines teacher training for primary education and the sciences of education in an undergraduate course of 4 years in length, was selected for practical reasons.

2. Methodology

2.1 The research description

The research was conducted in two phases. In the first (pilot) the Tuning competences were translated into Greek and given to 22 students in the academic year 2016-2017. This experience revealed that, on the one hand, the lists of competences were rather long, and their completion was tiring, and on the other, some competences were not understood and the sense of repetition was also emphasized. Consequently, a double adaptation was required in the local context, on the one hand with the restriction, that is to say, the condensing of the recommended competences, and, on the other, with the readjustment or specialization of some others. The new, modified questionnaire was distributed once more to 17 students and appeared to work better (Appendices 1 and 2).

The main research was conducted at the beginning of the academic year 2017-2018, with 4th year students in the Department of Primary Education at the University of Patras. They are students in the 7th semester of their studies who already had three years of experience as students on the curriculum in question. The total number of students in the year is 230.

The distribution of the questionnaires took place during the first meeting of the 4th year students for the arrangement of their teaching practice in schools, for the academic year 2017-2018. 179 questionnaires were completed, from which one was removed due to incorrect completion (total percentage 78%).

This meeting is considered very important and therefore institutionally obligatory to the extent that it is where the teaching practice groups are formed and instructions are given that concern the organization of the teaching practice in schools of the area. Consequently, the fact that 179 of the 230 students registered for the meeting were present makes the absentees a significant part of the student population for the subject of the questionnaire, even though experience says that there will always be those who, for various reasons, cannot be present (for example, work, illness, and so on). Despite that, the percentage of them (approximately 20%) is not explained by the previous cases and so it seems that a group of students has formed that has probably distanced itself from the obligations of their curriculum and whose answers could influence the results of the research. Hence, this constitutes a limitation of the particular research.

We believe that a second limitation is the fact that the research is synchronic and doesn't contain diachronic aspects. In other words, a question mark exists over whether the students' answers are a reaction to their curriculum or if they are based on powerful stereotypes they have of the teaching profession. In order to approach this, one would need to have distributed the same questionnaire to first year students and then re-distributed it, when they were in the 4th year. Only in this way could a better idea be formed of the effect of the curriculum on their answers.

2.2 Research tool

The questionnaire was made up of three parts: (a) demographic-educationalsocio/economic characteristics, (b) the Tuning competences, and (c) questions regarding the needs for study support, on an educational, psychological and counseling level. The last does not concern this text. This text focuses on the second part and is enriched by the first. For each competence, three different approaches are proposed: (a) how important it is considered to be by the students (legitimacy of the proposed competences) (hereinafter referred to as the first column), (b) how often they encountered it in the curriculum (evaluation of the curriculum) (hereinafter referred to as the second column), and (c) how much they believe that they themselves have developed it (self-evaluation) (hereinafter referred to as the third column). The answers are given on a five point's scale with 1 not at all and 5 very much.

2.3 Profile of the sample

Our sample is heavily dominated by women, with 81% of the sample being women. Their school career was particularly good, and 50% of them had a high school leaving grade between 18 and 20 out of 20, while there is no student with a leaving grade below 14/20. Although the use of grades in high school in Greece is flexible, given that it is the results of national exams that are important for university entrance, the existence of half the sample in the category of 'excellent' reveals a group with successful school attendance. Here it should be added that the year they entered the Department (2014/15), the required grade for entry was 16/20. A demanding pass mark for a particularly competitive national exam. In other words, we have a student population with a successful educational profile.

As far as the geographical origin of the sample is concerned, this has strong regional characteristics. Indeed, the majority (54%) comes from the region of Western Greece, of which Patras, where the University of Patras is based, is the capital. 29% come from the wider Athens region and the neighboring region of the Peloponnese while just 16% come from other regions of the country, or from abroad (Cyprus).

As far as the social origin of the students is concerned, data was collected on the educational level of their parents, and their profession. For the latter, the nomenclature ISCO o8 was used, which is used by the Greek statistical agency, and then the categories were condensed into three (high-middle-low). For education, three major categorizations were also created – low (compulsory education, levels 1, 2 and 3 on the European Qualification Framework) – middle (high school graduates (level 4) and level 5 of the EQF) – high (graduates of levels 6, 7 and 8).

In terms of educational level, what dominates in the case of the mothers as much as the fathers, is the middle level, with 46% and 44% respectively. In the category high, 30% of the mothers and 26% of the fathers were to be found, while in the low the percentages are 21% and 24% respectively.

As far as the social level is concerned, it should firstly be noted that in a country where unemployment is over 20%, the unemployment rate among the students' mothers is 7% and the fathers 3%. Of course, three points should be noted:

(a) Of the working fathers, 1 in 3 (31%) doesn't have permanent or steady work, while the corresponding percentage for the mothers comes to 51%.
(b) The very high percentage of retirees, 17% for the fathers and 9% for the mothers. This fact perhaps reveals a generalized phenomenon in the reality of the Greek crisis, in other words the mass exit of workers (particularly from the state sector) aimed at the protection of established pension rights.
(c) 1 in 3 mothers (34%) state that their profession is "domestic work", while 1% of the fathers claim the same.

Of those remaining, 44% of the fathers are placed in the middle category as against 35% of the mothers. This is the largest category, chiefly office employees. 12% of the mothers and 8% of the fathers are placed in the highest category. In this category, children of teachers dominate, at 11% of our sample. If however we add to those the retired teachers, then their

percentage surpasses 15% and is close to 20%. Consequently 1 out of 6 students has at least one parent who is a teacher (working or retired). Finally, in the low category (workers-farmers) 5% of the mothers and 29% of the fathers are to be found. While we can't develop this in this paper, it seems that the Department in question attracts children from the new middle class that was created after the dictatorship regime (1974) and especially in the 1980s and 90s and which comes in for intense pressure from the economic crisis, while it also holds on to a part of the traditional public for whom the profession of the teacher constitutes an accessible route to social mobility for the lower social category (workers-farmers).

3. Research results

3.1 The students' educational preferences

One of the interesting points appeared to be the preferences of the students in the sample regarding their studies.

The majority of the sample (55%) had made this particular Department their first choice¹. 36% had it in 2nd or 3rd place and just 10% had it below 3rd place. Consequently, this is a Department that receives students whose priority it is to be there.

To the question of whether their attitude to the teaching profession was positive or not, 92% responded positive and just 8% negative.

To the question of whether they had really wanted to study in a Department of Primary Education, 88% responded positively, 8% negatively and 4% answered 'I didn't know'. In total there appears to be, on the one hand, a vast majority of students, approximately 90%, with a positive attitude towards their studies in such a Department and a positive view of the teaching profession, and, on the other hand, a 'hard core', small but existent, made up of 8% of the students who are in the particular Department 'out of need' and who don't like the profession of the teacher.

Finally, an interesting finding has to do with what we called 'my dream studies', in other words the studies they would have dreamed of doing if there hadn't been other restrictions or difficulties. In this question, the percentage of those who stated that the teaching profession was indeed their dream, fell to 37%. This is a high percentage but still approximately half of that which those who chose these specific studies as a matter of priority mentioned. In addition, 43% state another profession and 20% preferred not to answer. The finding is significant in the sense that the students stated a long, wide-ranging list of other professions in their responses. The investigation of this phenomenon requires separate qualitative research with in-depth personal interviews. Consequently, it remains to be analyzed. Despite that, and from a first empirical approach, multiple factors seem to affect the variable, such as:

(a) Entry into the particular Department after failure to enter the desired Department (for example, medicine, which has the highest entry requirements);

(b) Choice of studies near home in order to limit expenses (for example, the University of Patras does not have a Law School or many of the Social Sciences Departments);

(c) Choice affected by family-imposed restrictions, given that the family in Greece is still powerful and our sample is predominantly female (for

¹ Here it should be noted that according to the system of access to higher education in Greece, candidate students sit national exams and then once they receive the results they complete an electronic form with their preferred Departments (study programs). The entry mark for each Department is shaped, on the one hand by the number of admissions per Department, and, on the other, by the preferences of the candidates as they are set out in their electronic form.

example, family restrictions are perhaps imposed on arts professions, such as dance, theatre, cinema, the arts and so on, or "dangerous" professions such as that of the firefighter, police officer or army personnel).

Finally, another major finding, which however is not central to this paper, is that the statistical significance control didn't give more than very few and fragmented statistically significant differences in the cross-checking of the social origin of the students with their education preferences and/or their performance. This strengthens the indication that this is a Department that receives the new middle class which at least in the case of Greece doesn't appear to have shaped class characteristics and is based more on its (temporary) economic power.

3.2 Statistical and factor analysis

3.2.1 Statistical analysis

Next in our research we proceeded to the analysis of the responses by competence. In essence we had two lists of competences, the generic and the specific. The following results emerged from the statistical analysis:

	Generic competences			
		In terms of their existence in the curriculum (2 nd column)		
means	4.36	3.56	3.67	
Specific competences				
means	4.27	3.59	3.59	

Table 1. Processing of responses

Based on the results in table 1 it appears that the proposed competences, the generic as much as the specific, enjoy great approval by the students in the sample, 4.36 out of 5 for the first and 4.27 out of 5 the second. Consequently, a strong legitimacy of the competences proposed by Tuning as a discussion framework is documented.

These competences can be found in the curriculum in a manner that is judged to be significant at 3.56 and 3.59 out of 5, respectively, but clearly with a smaller average than their objective importance. The statistical control (compare means) revealed a statistically significant difference between importance (1st column) and presence in the curriculum (2nd column) as well as their personal growth (3rd column). In addition, in terms of the generic competences, the difference between the 2nd and 3rd columns are statistically significant. If one remains with the third column (self-evaluation), the students seem to believe that they have developed those competences with an average of 3.67 (generic) and 3.59 (specific) out of 5. In other words, they believe that they have developed them to a satisfactory degree, but not as much as they would like.

One question that could constitute a checkpoint for the reliability of the responses could be the result of the self-evaluation. In the generic competences self-evaluation is higher than the detection of the competences in the curriculum. This result could lead to the questioning of the reliability of the students' responses. Despite that, the generic competences are, on occasion, wider than the curriculum. Consequently, it would be of value for one to focus more in order to be able to draw safe conclusions.

More analytically, in 15 generic competences (1, 6, 7, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21) the students claim that they have developed them more than they have encountered them in the curriculum, in 2 (4 and 8) they claim that they have developed them less and in 5

competences the mean is the same. Focusing on the 15 competences, the three competences with the greatest divergence are the: 6th (knowledge of a second language), the 13th (capacity to generate new ideas) and the 21st (capacity to work with others from different cultures). In contrast, the two competences which the students have developed to a lesser degree than they encountered them in the curriculum have to do with (a) basic general knowledge of the scientific field and the profession (3.7 and 3.5), and (b) research skills to a satisfactory level (3.2 and 3.1). The explanation for the extreme values, the positive as much as the negative, is not the same. In the first case (greater positive divergence) the knowledge of a second language usually takes place outside of the education system, the production of new ideas concerns a personal sense of creativity and working with others from different cultures could be due to experience from their school life and the meeting places of young people in the sense that the presence of immigrant children is significant as much in school as in the spaces young people frequent. On the other hand, the negative divergence probably reveals evaluative judgment in terms of the curriculum that they have followed thus far. In any case, the final answer in terms of the differentiations can only be given through in depth interviews.

As far as the specific competences are concerned, in other words the specialized elements of the curriculum, the average is the same in the second and third columns, something that supports the reliability of the responses. In terms of the internal differentiation of the 25 specific competences, in 8 competences (1, 7, 8, 10, 12, 14, 17, 25) the mean between the second and third column is the same, in 9 competences the mean of the second column (9, 13, 15, 16, 18, 20, 22, 23, 24) is greater than the third column, and in 8 competences the mean of the third column (2, 3, 4, 5, 6, 11, 19, 21) is greater than the second column. The extreme values are to be found: in the first case (they have encountered them more in the curriculum than they have developed them), in competences 22 (ability to improve teaching/learning environment) and 24 (ability to design and to apply different strategies, based on specific criteria and evaluate learning), and b) in the second case (they have developed them more than they have encountered them in the curriculum), in competences 3 (ability to transmit values which we believe in such as active citizenship and democracy) and 5 (ability to recognize and respect students' differences and the different ways of learning). As far as the first case is concerned, the students show hesitancy probably due to the lack of professional experience. In terms of the second case, this seems to be tied to the relevant results in the generic competences and to highlight the students' lived experience with the presence of the 'other' in their social/school and personal life.

3.2.2 Factor analysis

Next, we proceeded to a factor analysis which was based on the objective value of each competence according to the students (first column) and which gave us two groupings, as much for the generic as for the specific competences, with similar characteristics:

	Groupings
Generic competences	Group a: 1, 2, 3, 4, 5, 9, 12, 17, 20, 21, 22
	Group b: 6, 7, 8, 10, 11, 13, 14, 15, 16, 18, 19
Specific competences	Group a: 2, 4, 5, 6, 11, 12, 13, 16, 18, 19, 20, 22, 25
	Group b: 1, 3, 7, 8, 9, 10, 14, 15, 17, 21, 23, 24

Table 2. Competence groupings

More analytically:

- Generic competences:

• The first group of generic competences is constituted of competences that have to do with the scientific field and its knowledge: the profession, the school classroom, mother tongue, the capacity for lifelong learning, the capacity to adapt, the ability to communicate and collaborate, respect for multiculturalism, the ability to work with different cultures and autonomous work.

• The second group of generic competences has to do with broader competences such as: knowledge of a foreign language, ITC skills, research and the search for information from various sources, criticism and selfcriticism, creativity, problem solving, decision taking, group work, the ability to activate others for common goals and the ability to communicate with parents.

- Specific competences:

• The first group is again more directly linked to the profession and its scientific formation with competences such as: the linking of knowledge and practice, the need to apply teaching practices, the need to recognize the learners' different needs, differentiated learning, counselling, the need to use and evaluate teaching material in projects, how a school class evolves, devotion to the job and to the pupils' learning, knowledge of the school subjects, the ability to communicate, the creation of a learning climate, the need to improve teaching and learning, the need to adapt to different environments.

• The second grouping is made up of broader competences, such as: the analysis of theoretical theories and concepts, citizenship and democracy, the need to understand how the education system operates, the different role of the participants in the learning process, the capacity for research, the capacity to design and implement educational projects, the capacity for coordination and participation in international projects, the capacity to understand trends in education, the capacity to be aware of different learning strategies, the capacity to use e-learning, the adaptation of educational material to different environments, the capacity to design and apply different strategies.

Based on the above, the groupings "generic competences – 1^{st} grouping" and "specific competences – 1^{st} grouping" formed the core of the competences directly related to the profession and its training, according to the students' responses. In contrast, the groupings "generic competences – 2^{nd} grouping" and "specific competences – 2^{nd} grouping" form a second cycle of competences which are more open but with a smaller priority and importance for the students.

These two groupings, after checking, seem to have great internal consistency in the sense that Cronbach's Alpha control gives us a value of 0.94 and 0.92 respectively, with a limit of 0.60.

Another interesting point seems to be the fact that when the four variables that are formed (generic -1^{st} grouping, generic -2^{nd} grouping, specific -1^{st} grouping and specific -2^{nd} grouping) are examined in relation to various demographic, educational and social characteristics, only rarely and sporadically do they give statistically significant differences. This is something which appears to confirm the estimation of the fluidity of the social formation of family background. More analytically, the only statistically significant differences have to do with:

(a) Gender with generic competences -1^{st} grouping (0.013);

(b) Father's education with specific competences - 2nd grouping and only in the focus between low and middle level of education;
(c) School performance with generic competences - 1st grouping (in the

control with Anova and Bonferoni) (0.045).

In contrast, control by geographical origin, profession, educational preferences and the mother's education did not provide statistically significant differences.

4. Discussion

Discussion on the initial training of teachers is intense and multidimensional nowadays. It is structured around the discourse on learning outcomes and student centred learning. At the same time, learning is placed at the heart of the discussion, and it could be approached in two distinct as well as complimentary sets of opposites: teacher learning – student learning and learning outcomes – students' beliefs.

In this context, the students' beliefs are a structural factor as much for research, as for application, at the level both of study programs and policy making.

This is what our research attempted to do. It asked the students: (a) about which competences should be promoted (using Tuning's work as a guide), (b) their view of the study program they are on based on these competences, and finally (c) whether they themselves believe that they have developed the competences.

Our research results, bearing in mind the limitations created by the absentees and the lack of a diachronic approach, reveal great legitimacy of the Tuning competences by the students in our sample. On the other hand, a statistically significant distance is noted between their regulative significance and on the one hand their existence in the curriculum and on the other their development by the students themselves (self-evaluation). It should be noted that despite the statistically significant difference, the students are not disappointed by their curriculum and by their self-evaluation. It is more a judgment of 'not as much as I would have liked'. Indeed, the mean, for example for the generic competences, 3.56 (how often we encountered them) and 3.67 (how far we have developed them) is not disappointing but nor is it excellent. The difference is shaped by the very high acceptance of the proposed competences.

The factor analysis made clear a grouping of generic and specific competences into two groupings. A grouping of competences oriented to the profession, the school classroom, teaching, which we characterized as "professional", and another made up of competences that are more 'open' and broader and which include knowledge of a foreign language, research capacity, knowledge of new technologies, the importance of international collaborations, and so on. The two groupings have very great internal consistency. In addition, the first grouping has greater means and statistically significant differences than the second grouping. Consequently, what the students' responses reveal is the traditional role of the teacher in relation to a broader approach to the profession.

This is perhaps the most important finding of our research. Despite that, our research cannot answer the question of the "effect of the curriculum". In other words, we cannot distinguish whether this traditional view of the profession, which is revealed in the students' responses is a consequence of the influence of their curriculum or strong prior stereotypes, much more where the presence of the children of teachers is significant. The answer could be given only through diachronic research.

5. Conclusions

To conclude, the research results appear to highlight what is at stake. On the one hand, there is general demand for the renewal of the study programs and the creation of a new generation of teachers with a differentiated initial education founded on learning outcomes and student-centered learning. This requires the active participation of the students in its formation. On the other hand, the students' beliefs appear not only to not be in line with this demand, but to be focused on a traditional view as much of what the teacher "must know" as of what he "must do". This divergence creates a conflict which does not appear to be negotiated within the student-centered learning approach and which perhaps should be investigated further in the future.

Acknowledgements

This research did not receive any specific grant from funding agencies in the public commercial, or not-for-profit sectors.

The authors declare no competing interests.

References

- Anderson, J. L., & Justice, J. E. (2015). Disruptive design in pre-service teacher education: uptake, participation and resistance. *Teaching Education*, *26*(4), 400-421.
- Anagnostopoulos, D., Levine, Th., Roselle, R., & Lombardi, A. (2018). Learning to redesign teacher education: a conceptual framework to support program change. *Teaching Education*, 29(1), 61-80.
- Cochran-Smith, M., & Villegas, A. M. (2015). Studying teacher preparation: The questions that drive research. *European Educational Research Journal*, *4*(5), 379-394.
- Commission of the European Communities (2007). Communication from the Commission to the Council and the European Parliament: Improving the Quality of Teacher Education. COM(2007) 392 final. Brussels.
- Corbalan, M., Plaza, I., Hervas, E., Aldabas-Jordi, E., & Arcega, F. (2013). Reduction of the students' evaluation of education quality questionnaire. In: *Proceedings of the 13 Federated Conference on Computer Sciences and Information Systems* (pp. 695-701). Retrieved 14 April 2018, from <u>https://annals-csis.org/proceedings/2013/pliks/29.pdf</u>.
- Creemers, B. P. M., & Kyriakides, L. (2008). *The dynamics of educational effectiveness: a contribution to policy, practice and theory in contemporary schools*. Abingdon: Routledge.
- DeGraff, Tr. L., Schmidt, C. M., & Waddell, J. H. (2015). Field-based teacher education in literacy: preparing teachers in real classroom contexts. *Teaching Education*, *26*(4), 366-382.
- Education and Training 2020 Thematic Working Group 'Professional Development of Teachers (2011). Literature review of teachers' core competences: Requirements and development. European Commission.
- European Commission (2010). Communication from the Commission: Europe 2020. A strategy for smart, sustainable and inclusive growth. COM (2010) 2020 final. Brussels (Retrieved 7 May 2018).
- European Commission/EACEA/Eurydice (2012). *Developing key competences at school in Europe: Challenges and opportunities for policy. Eurydice report.* Luxembourg: Publications Office of the European Union.

- Hattie, J. (2009). *Visible learning. A synthesis of over 800 meta-analyses relating to achievement.* Abingdon: Routledge.
- Marsh, H. W. (1987). Students' evaluations of university teaching: research findings, methodological issues and directions for future research. *International Journal of Educational Research*, *11*(3), 253-288.
- Marsh, H. W., Rowe, K. J., & Martin, A. (2002). Phd students' evaluations of research supervision. *The Journal of Higher Education*, 73(3), 313-348.
- Puustinen, M., Säntti, J., Koski, A., & Tammi, T. (2018). Teaching: A practical or research-based profession? Teacher candidates' approaches to research-based teacher education. *Teaching and Teacher Education*, 74, 170-179.
- Scheerens, J., & Bosker, R. (1997). The foundations of educational effectiveness. Oxford: Pergamon.
- Seidel, T., & Shavelson, R.J. (2007). Teaching effectiveness research in the past decade: The role of theory and research design in disentangling meta-analysis results. *Review of Educational Research*, 77(4), 454-499.
- Stamelos, G., Vasilopoulos, A., & Kavasakalis, A. (2015). *Introduction to the educational sciences*. Kallipos (www.kallipos.gr).
- Trigwell, K., & Dunbar-Goddet, H. (2005). *The research experience of postgraduate research students at the University of Oxford*. Oxford: University of Oxford.
- *Tuning Educational Structures in Europe* (2002). Document 4. Report. University of Bilbao and University of Groningen.
- *Tuning Educational Structure in Europe* (2007). General brochure on Tuning. Report. University of Bilbao and University of Groningen.

Gen	Generic competences		
1	Ability for abstract thinking, analysis and synthesis		
2	Capacity to apply knowledge in practical situations		
3	Ability to plan and manage (school) time		
4	Knowledge and understanding of the subject area and understanding of the profession		
5	Ability to communicate both orally and through the written word in first language		
6	Ability to communicate in a second language		
7	Skills in the use of ICTs		
8	Ability to undertake research at an appropriate level		
9	Capacity to lifelong learn and stay up-to-date with learning		
10	Ability to search for, process and to analyse information from a variety of sources		
11	Ability to be critical and self-critical		
12	Ability to adapt to and act in new situations		
13	Capacity to generate new ideas (creativity)		
14	Ability to identify, pose and resolve problems		
15	Ability to make reasoned decisions		
16	Ability to work in a team		
17	Capacity to communicate and cooperate with others		

Appendix 1

18	Ability to motivate people and move toward common goals
19	Ability to communicate with parents on education issues
20	Appreciation of diversity and multiculturality
21	Capacity to work with others from different cultures (in an international context)
22	Capacity to do things by yourself (ability to work autonomously)

Appendix 2

Spee	Specific competences		
1	Ability to analyze educational concepts, theories and issues in a systematic way		
2	Ability to identify (potential) connections between aspects of subject knowledge and their application in educational (policies and) contexts		
3	Ability to transmit values which we believe in, such as active citizenship and democracy		
4	Ability to understand and apply educational theories and methodologies learnt in our teaching practice		
5	Ability to recognize and to respect students' differences and the different ways to learn		
6	Awareness of the fact that learning can take place in different ways and in different situations		
7	Understanding of the structures and purposes of educational system(s)		
8	Awareness of the different roles of participants in the learning process		
9	Ability to do educational research in different contexts		
10	Ability to design and realize different educational projects		
11	Ability to consult about different educational issues and counselling skills (psychological counselling, counselling learners and parents)		
12	Ability to manage and evaluate educational material and to participate in different educational projects and activities		
13	Ability to understand processes of development and change in the (educational) community (e.g. school classroom)		
14	Ability to lead or coordinate a multidisciplinary educational team (in the context of a Comenius project, for example)		
15	Ability to understand trends in education and be able to recognise possible applications		
16	Commitment to the progress and achievement of our students, which depend on the quality of our work		
17	Competence in a number of teaching/learning strategies in order to apply them in the classroom		
18	Knowledge of school subjects to be taught		
19	Ability to communicate effectively with groups and individuals		
20	Ability to create a climate conducive to learning		
21	Ability to make use of e-learning and to integrate it into the learning environments		
22	Ability to improve the teaching/learning environment		
23	Ability to adapt the curriculum and educational material to a specific educational context		
24	Ability to design and to apply different strategies, based on specific criteria, and evaluate learning		
25	Ability to adjust the curriculum to a specific group with specific needs		

G. Stamelos & P. Evangelakou – Creating study program for initial teacher education: ...

