

Secondary Teachers' Pedagogical Competence in Greece: Programs, Policy and Reflections

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IJMER

Volume. 8, Issue. 3

September, 2025

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Abstract

Despite the acknowledged contribution of teacher education to their effectiveness, deficiencies and weaknesses in teacher preparation curricula have been identified, and secondary school teacher training in pedagogy and instructional methods is still a work in progress - not just in Greece. The purpose of this article is to outline the practices and policies pertaining to the safeguarding of the pedagogical competence of secondary education teachers in Greece, as well as the obstacles to the generalization and consolidation of certain practices so far, along with thoughts on the prospect and the conditions for its assurance. To achieve the research goal: a) the relevant institutional framework from 1997 until today (2023) was studied; b) all curricula of the Teacher Preparation Schools were analyzed; and c) quantitative research was conducted to examine the views of professors at Departments whose graduates have the formal right to work as secondary school teachers.

Keywords: Teacher Education, Pedagogical Competence, Greece, Teachers' Preparation Curricula, Secondary School Teachers, Teachers' Educators.

1. Introduction

The increasing roles and responsibilities of teachers (Conway et al. 2009) create new concerns and challenges regarding their preparation and training. Teachers' capacity is considered an important factor for students' learning achievements (Darling-Hammond & Young 2002; Hattie 2008; Day et al. 2009; Gillis et al. 2016) and for a nation's ability to compete in the global knowledge economy (Shahlberg 2012); furthermore, this 'ability' depends to a significant extent on the quality of the teacher's initial education (Flores 2016).

Despite the acknowledged contribution of teacher education to their effectiveness, deficiencies and weaknesses in teacher preparation curricula have been identified (Flores 2016; Blackwell et al. 2003; McFadden & Sheerer 2005), and secondary school teacher training in pedagogy and instructional methods is still a work in progress - not just in Greece. In Greece, for example, while primary school teachers receive very systematic studies that ensure their pedagogical and instructional competence, this is not the case for secondary school educators or primary school educators covering specialisation courses. The necessity for secondary school teachers to be trained in pedagogy and instructional methods has been increased at the level of educational policy since 1997 (Law 2525/1997), yet-despite the 25-year effort to ensure and consolidate such training- it still has many shortcomings and contradictions and raises questions and conflicts.

The purpose of this article is to outline the practices and policies pertaining to the safeguarding of the pedagogical competence of secondary education teachers, as well as the obstacles to the generalization and consolidation of certain practices so far, along with thoughts on the prospect and the conditions for its assurance. To achieve the research goal: a) the relevant institutional framework from 1997 until today (2023) was studied; b) all curricula of the Teacher Preparation Schools were analyzed (except for those preparing teachers for primary education); and c) quantitative research was conducted to examine the views of professors at Departments whose graduates have the formal right to work as secondary school teachers.

2. Teacher Training in Pedagogical and Instructional Methods: Content, Organization, Policies & Challenges

Today's educators are expected to teach not only easy-to-teach and assess skills, but also ways of thinking, ways of working, 'tools' for working, and skills regarding citizenship, life, career, and individual and social responsibility for success in modern democracies (OECD 2011). Teacher

competence has a significant impact on student performance; some scholars estimate that up to 75% of school impact can be attributable to teacher effectiveness (Rivkin, Hanushek, & Kains 2005). Teachers' 'competences' are defined by considering assumptions about learning, educational objectives, societal expectations and demands of teachers, priorities and political will, the status of the profession, external and international pressures, current traditions, the larger social context, and the environment in which teacher education takes place (Conway et al. 2009).

Despite diversity in educational systems and cultures, there appears to be agreement on some key teacher competencies (Feiman-Nemser 2008; Caena 2014; EC 2013; Author 2011): a) Knowledge of the teaching subjects, pedagogical approaches to the subject, education sciences, curriculum, concerns of inclusion and diversity, effective use of technology in learning, psychology, group dynamics and interaction processes, assessment procedures and methodologies; b) Skills in planning, managing, and coordinating teaching, the use of teaching materials and technologies, the management of students and groups, the monitoring, adaptation, and evaluation of teaching/learning objectives and processes, the collection, analysis, and interpretation of data for decision-making and the improvement of teaching and learning, the use, development, and production of research knowledge aimed at feedback, cooperation with colleagues, parents, and social partners, the use of research knowledge aimed at feedback, the use of research knowledge aimed at feedback, the use of research knowledge c) Beliefs, attitudes, and values such as epistemological awareness, willingness to change, flexibility, continuous learning and professional improvement, commitment to ensuring and optimizing all students' learning, willingness to cultivate democratic attitudes and practices, critical attitude, willingness to teamwork, cooperation, sense of self-efficacy and d) pedagogical thinking.

3. Pedagogical Adequacy of Teachers: The Institutional Framework in Greece (1997-2023)

The content of prospective teachers' pedagogical studies in Greece is solely determined by the institutions that undertake their preparation, as they are responsible for developing the curriculum. The autonomy of these institutions in curriculum design and organization implies that they are also responsible for future teachers' pedagogical studies (art. 24, Law 1268/82). Until 1997, holding a degree from a higher education institution was sufficient for entry into the profession, and appointments in public education were made through a yearbook in which prospective teachers were classified in chronological order based on the year of their degree (Article 15 of Law 1566/85).

With Law 2525 of 1997, a process of evaluating prospective teachers is put in place for the first time, with the ultimate goal of making appointments gradually only from tables drawn up after a competition by 2003 (Article 6, Law 2525). According to the same law, a certificate of pedagogical and teaching competence for Secondary Education teachers, granted by universities, is also required as a prerequisite for participation in the competition. However, the implementation of this provision was delayed for five years after the law was entered into force (2003). However, subsequent legislation did not help to generalize or consolidate the pedagogical training process. The pedagogical and instructional training of secondary school teachers is assigned to the Higher School of Pedagogical and Technological Education under Law 3027/2002, which may set up programs lasting up to two academic semesters and issue a Certificate of Pedagogical and Instructional Competence, though the appointment is still primarily and almost exclusively done through the yearbook and is based on the year of obtaining the degree. Law 3255/22.6.2004 "extends the extension" of the provision requiring a certificate of pedagogical competence until August 2007 (Article 1, Law 3255/22.6.2004).

The issue of pedagogical and instructional competence is revisited in Law 3848/2010, which again correlates the teacher selection process through a written competition in which holders of a certificate of pedagogical and instructional competence may compete. This Law certifies pedagogical and instructional competence through the following means: a) a certificate of successful completion of a special study program of at least six months duration provided by a department of a Higher Education Institution ("AEI"); b) possession of a degree from a University Department, the curriculum of which ensures pedagogical and instructional competence under the prerequisite "...in the curriculum of the Department ...teaching subjects falling within the following subject areas: 1. Education and training issues. 2. Learning and teaching issues. 3. Specialized teaching and practical training"; c) possession of a degree from Pedagogical University Departments; d) possession of a

postgraduate degree or a doctorate in Education Sciences; e) possession of a pedagogical degree of the Pedagogical Technical School or the Higher School of Educational Technological Engineering or the Higher School of Pedagogical and Technological Education; f) possession of a degree of the Special Pedagogical Academy of Thessaloniki. Eight years later, Law 4547/2018 maintains the same spirit regarding granting a certificate of pedagogical and instructional competence with minor amendments. However, because no teacher selection competition has been held, these legal provisions have not been implemented; however, their placement in schools is still done through a list and based on formal qualifications.

The recently enacted Law (Law 4957/2022) marks a policy shift in the certification of pedagogical and instructional competence. According to this Law, pedagogical and teaching competence programs are organized and provided at the University level, rather than the Department level, have a minimum duration of two semesters and provide sixty credits, leading to a separate degree equivalent to a certificate of pedagogical and instructional competence. Schools or Departments of Education are in charge of designing, organizing, and implementing this special program. This provision, however, has not yet been implemented and has been extended.

The provision for the Certificate of Pedagogical and Instructional Competence (CPIC), as well as the evaluation of prospective teachers' pedagogical training in order to be appointed in public schools, indicate that the state wishes to ensure teachers' pedagogical competence. However, implementing these provisions is extremely difficult, which negates the underlying intentions.

There is no detailed description of those 'competences' of teachers that are considered necessary conditions for their performance, so it is up to the autonomous schools that prepare teachers to define a framework for teachers' competences and to choose the procedures by which they will achieve the expected outcomes. This also implies the lack of a competence framework that can be exploited throughout the continuum of teachers' professional development (selection for teacher training schools; initial studies for the profession; entry into the profession; further training and professional development until retirement) and generates discontinuities, exclusions, and even conflicts between various policies (initial education programs, entry requirements for the profession, teacher certification and evaluation) and the competent bodies responsible for ensuring teachers' pedagogical competence (governmental organizations, teacher training bodies, professional associations).

4. Training of Greek Secondary School Teachers in Pedagogical and Instructional Methods

This study investigated the 2022-2023 academic curricula of seventy-five (75) Departments whose graduates are eligible to work as Secondary Education teachers (see Table 1). It is specifically recorded whether educational and instructional training programs are provided to their students and/or graduates, whether such courses are required of all students, as well as the duration and content of the programs.

The examination of the curricula reveals three distinct trends that reflect the Departments' policies. The first trend/policy is the establishment of a curriculum of specific pedagogical and instructional training courses included in the three categories provided for by the Law, often in cooperation with other University Departments, with a set number of courses and ECTS (by a majority of 30 ECTS). The decision to take the relevant courses and obtain the CPIC is largely up to the students. In terms of content, the majority of these courses are introductory, limited in scope, and designed to ensure teachers' readiness to respond to their limited teaching work as instructors. In some cases, the core of these programs includes courses that are not part of the Sciences Education curriculum and do not constitute pedagogical and instructional training courses. A second trend/policy is not to grant a CPIC; rather, the Departments adopting this policy expressly state that pedagogical and teaching competence is guaranteed for all graduates upon obtaining their degree, and that this is documented by the "excellent" knowledge of the teaching subject; additionally, they state that attendance of 1-3 Pedagogical courses is sufficient for graduates to meet the role and duties of a teacher. A third trend/policy is the lack of any reference to the CPIC, as well as the inclusion of sporadic, occasional, and optional courses in the field of Sciences Education, which are introductory and often optional.

It appears that covering all areas of knowledge seems to be particularly difficult. Of course, this is not just a problem for Greece; it appears that many other countries are attempting to strike a balance between subject matter and pedagogical knowledge (OECD 2014b, 2019). According to the TALIS survey, 27% of teachers lack adequate training in the subjects they are required to teach, and one-third lack adequate pedagogical training; additionally, 7% feel inadequate in the subject they teach, and 10% feel inadequate in their pedagogical training and pedagogical approach to their subject (OECD 2014a).

Almost all Departments adhere to a traditional academic approach, in which curriculum content is structured in classical disciplines and is determined by the epistemological traditions of each of these disciplines, which correspond to different University Faculties (Whity & Furlong 2017). This fact, combined with the observed lack of substantial cooperation among the various University Faculties and the lack of adequate hands-on Practical Training in the workplace, results in fragmented and frequently theoretical knowledge related to the teacher's work (OECD 2019).

5. Views of Faculty Members

The new Law (4957/2022) reintroduces the requirement for teachers to obtain a Certificate of Pedagogical and Instructional Competence (CPIC) as a condition of appointment, establishing a new foundation and revising all previous provisions. The main change proposed by the Law is that the certificate be granted centrally at the University level, rather than by the Departments in which they are already enrolled as students. This is an organizational change, and the Departments/Schools that will grant the Certificate will specify the content, methodology, and procedure for granting the CPIC. This regulation elicited a variety of responses from schools that prepare prospective teachers for Secondary Education level.

There are two primary reasons for documenting the perspectives of the professors who staff the Secondary Education Teacher Preparation Departments:

Teacher education is not a linear process in which candidates enter with their prior knowledge, opinions, and experiences and, after the mediation of the training processes, we have the program's results as 'outputs'; rather, teacher education is a complex system with a number of interacting factors. Ell et al. (2017) discuss 'persons' and 'things' that interact, are co-shaped and co-shape future teachers. The professors who train teachers are the decisive "persons" in this process. First and foremost, they serve as an authentic and consistent role model for their students (Lunenberg, Korthagen, & Swennen 2007), despite differences in how they approach knowledge and the role they propose, as well as how they exercise the role themselves (Cochran-Smith et al. 2015).

Also, varying levels of commitment to their role as teacher trainers have been identified; some spend little time in teacher education, and do not have a strong teacher trainer identity (Flores 2011, EC 2013), nor do they act in general as researchers in the field of teacher professional development and education (Flores 2011)

In the Greek context, ensuring the pedagogical and instructional competence of teachers in primary and secondary education was raised for the first time as an issue of educational policy in 1997, and it was brought back to the forefront by Law 4957/ 2022 (Article 99). Any innovation that does not come from the bottom up, or if the innovators do not have a good understanding of educational issues, is doomed to fail and, more importantly, cannot bring about the desired change. The desired change in this case is not the provision of formal pedagogical and instructional competence certification, but the appropriate, substantial, and sufficient preparation of teachers who staff the country's schools.

The goal of this study was to collect the opinions of professors from university departments whose graduates have the formal qualifications to work as teachers of specialisation courses in secondary and/or primary schools. It specifically records their perspectives on the necessity, organisation, and content they believe is appropriate for their students' and graduates' pedagogical and instructional training.

The survey method was used to collect data, with an electronic self-reporting questionnaire with closed questions or five-point Likert nominal scale questions. The survey sample, which was identical to the survey population, consisted of approximately 1,700 professors who work in Greece's so-called "Teacher" Schools, i.e. schools whose graduates are eligible to work in Secondary and/or

Primary schools as teachers of specialization courses. The questionnaire was completed by 166 people, and all Departments, Universities, subjects, grades, and ages are represented in a proportional manner. The data used were the participants' individual responses, which were analyzed using the SPSS program.

6. Data Presentation & Interpretation

According to data analysis, the vast majority of participants believe that pedagogical and instructional training for their students and graduates is absolutely necessary (Table 2). Concerning the timing of pedagogical training, it appears that the prevailing opinion was that it would be provided concurrently with the basic degree (Table 3). It should be noted that this question allowed participants to select as many answers as they wanted, with no limit of one answer.

According to the results, one-third of the participants believe that pedagogical and instructional training for teachers should be provided concurrently with their regular studies to obtain their basic degree, without any extended studies and with an ECTS increase, while 23.2% consider that ECTS increase is not necessary. The same percentage (23.2%) recommends acquiring pedagogical training by creating a separate direction in curricula; while a smaller percentage (13.4%) believes that the parallel provision of pedagogical and instructional training necessitates also an extension of the studies' duration (synchronous curricula) (Table 3). In principle, providing pedagogical and instructional training alongside basic studies has practical benefits - and imposes no additional financial burden on students. This is a practical issue, but it appears to have an impact on the quality of studies. Financial constraints on students impede their initial education (Kane 2005). As a continuation of the Bologna processes, the parallel model of teacher education has emerged as the most appropriate - at least in theory (Flores 2011; Flores et al. 2014). Cross-sectional synchronous curricula are most effective in developing prospective teachers' necessary competencies, linking theory to practice, and developing both professional skills and prospective teachers' professional identities.

However, a sizable proportion of participants (31.1%) consider it more appropriate that pedagogical and instructional training should be provided after obtaining a basic degree and before being appointed to a school through participation in a special pedagogical and instructional training program (consecutive type of curriculum). Clearly, such a choice does not shorten time, workload, or duration of studies in the subject or in the candidates' pedagogical and instructional training. It does, however, reflect the 'academic' or 'practical' approach (See Zeichner 1983). Offering a pedagogical training that is disconnected from the subject risks developing a 'practical knowledge tradition' that is based on teachers' tasks, such as lesson planning and evaluation, and necessitates the development of practical skills that are insufficiently supported by scientific knowledge, theories, and research data; additionally, the theory-practice connection is not ensured, nor is the link between Pedagogical sciences and Pedagogy of the subject and scope (OECD 2019; Whitty & Furlong 2017).

Finally, a not at all insignificant number of the professors involved in the study believe that pedagogical and instructional training should be provided not as a prerequisite for entering the profession but as a prerequisite for assuming teaching duties; thus, it should be provided not during the prospective teachers' initial studies but after their appointment, either before (11%) or after (8.5%) the assumption of teaching duties. This viewpoint is indicative not only of how necessary pedagogical and instructional training is regarded, but also reveals perceptions of the teacher's role and profile as a professional.

In particular, regarding the duration of pedagogical and instructional training, the majority of participants (66.3%) consider that 1-5 courses to be sufficient in the term of two semesters (45.1%) or even one semester (39%). A fairly high percentage (28.2%) considers that 6-10 courses are required to ensure the pedagogical and instructional training of prospective teachers. Few are the cases of participants stating that more than 10 courses would be needed (See Table 5). In general they seem to consider that extensive and long-lasting pedagogical studies are not necessary, a view that can be based either on an academic approach and on the belief that the possession of the subject matter is sufficient to perform the work of a teacher or on a false sense of teaching expertise, stemming from the fact that the teaching profession is familiar and very visible and that the knowledge that teachers possess appears to be very common (Berry 2011) or even on the belief that they are not convinced

that education can bring any substantial results (Fullan 2007). However, the complex and often implicit nature of a teacher's pedagogical thinking and professional knowledge, on the other hand, is the result of complex cognitive processes that last 3-5 years (EC 2013). Short pedagogical and instructional training programs designed to meet accountability standards will result in 'deprofessionalisation' (Flores 2021), the treatment of teaching as a managerial process, and the perception of the teacher as a processor of standardized procedures, with a significant impact on the quality of education provided and students' learning outcomes.

Regarding the content of pedagogical and instructional training, the majority of participants consider Internship necessary. They consider the following factors to be equally important: pedagogical understanding of the subject, instructional methodology, psychology, the use of new technologies in education, and educational evaluation. The majority of responses are about topics related to teachers' instructional work. However, in terms of teacher education, classroom readiness cannot be an end in itself because, aside from the fact that the complexity of teaching and the role of occasional context are overlooked, there is a sense that the knowledge, skills, and attitudes required for the teacher to perform in his work are finite, quantifiable, and measurable (Mayer, Goodwin & Mockler 2021). It is a pending question to find a balance, in order for prospective teachers to be prepared to respond immediately to the needs that arise in the classroom and at school, but they should have an enriched and deeper understanding of educational matters that will allow them to adopt new pedagogical and teaching practices tailored to the needs of students and the context. A new approach to teacher education is required, in which teachers are viewed as key actors in the renewal of education and the educational system (Darling-Hammond 2013; Ingvarson et al. 2014).

One in three participants consider it necessary that prospective teachers should be trained in subjects related to inclusive education, equal opportunities in education and, ultimately, the compensation of different starting points in order to achieve equality in education (e.g. Intercultural education, Sociology of Education, Special Education, Education and gender). Today, the crucial role of teachers education in serving a diverse range of students and promoting equality is emphasized (Darmody & Smyth 2016). In a recent survey (OECD 2019), 260,000 teachers from 48 countries expressed a desire for more preparation for teaching in multicultural and multilingual environments, as well as teaching students with special needs. Several other recent surveys have produced similar results (see Cochran-Smith et al. 2016; Moore & Slee 2020). The multiple roles of the teacher and the approach to these roles as a key participant in society, a source of ethical development, and a key individual to lay the foundations for life in complex, differentiated, and uncertain socioeconomic conditions (Duda, Clifford-Amos 2011) necessitate the inclusion of a cultural, social, and ethical dimension into prospective teachers' curricula (Flores 2016).

Even fewer participants believe that prospective teachers should receive training in subjects that will ensure their understanding of the larger context in which the school operates as well as increase their self-awareness as teachers (e.g., Philosophy of Education, History of Education, Management and Organization of Education).

7. Conclusion

Today, the Greek government has established a procedure for issuing a Certificate of Pedagogical and Teaching Competence without providing a clear description of the skills required by teachers to respond to their work. Clearly, considering teachers' competencies as measurable, pre-determined, and formal qualifications is neither feasible nor valid. However, broad consensus among all stakeholders (the State, Universities, prospective and active teachers) on a minimum set of competencies is required; however, this must be done in a dynamic framework that will be constantly shaped by current circumstances and new research data, and which can be used as a reference framework for the development of initial teacher education programs, the entry of teachers into the profession, national examinations for teacher competence certification, and the systematic evaluation and training of active teachers (EC 2013). A precise and strict description of the competencies and qualifications that a teacher must possess, on the other hand, can lead to 'performative professionalism' (Evans 2011) and represents a step back in teachers' professionalism (Flores 2016). Furthermore, accountability procedures risk focusing on teachers' individual responsibility while ignoring contextual factors (Vanassche, Bruneel, & Christiaens 2021).

The fact that the Greek state has not defined this framework but has delegated responsibility for program organization to the University is a fortunate coincidence for the University because professors have the initiative to shape not only the content of the pedagogical and teaching competence programs, but also to ensure their professionalism. The University's strong role in teacher education demonstrates the close relationship between teacher education and research, contributes to the high prestige of teacher education, and ensures not only high quality teacher training, but also the ability to continuously improve the educational system (Toom & Jukka 2021). Teachers' professors' roles and responses to the CPIC political intervention are critical in guiding this effort and negotiating productive relationships between partners/stakeholders in teacher education. As a result, they must take the lead in shaping the teaching profession, including instilling confidence in education policymakers and the government (Simpson, Cotton, & Gore 2021), but most importantly in the wider society. The active participation of the University and professors is a guarantee - not for the abandonment of the accountability concept, but for the development of a more professional accountability framework (Mayer, Goodwin & Mockler 2021).

The CPIC is a challenge for teachers to improve their own skills as well as their students' education quality. What does this mean in practical terms? What will be done to address the distinction between subject knowledge, pedagogical knowledge, and professional practise? How can we overcome the current dominance of academic logic in secondary school teacher education, which operates at the expense of professional logic? What effect will this new framework have on the quality of initial teacher education? What kind of teachers did we intend to train with this new framework? All of these are open questions that must be addressed.

Zeichner et al. (2015) have pointed out that researchers are often 'defenders' of the existing education policy, whereas White (2016) contends that research does not always aim to converse with education policy. In an effort to link research to current national policy, we conclude this article with suggestions for further research on the following topics: a) research focused on the role of teachers' professors, as they are the ones who highlight and promote an authentic and coherent role model in teaching their students (Lunenberg, Korthagen & Swennen 2007) and their role is crucial to ensure coherence between individual elements of the curricula (Flores 2011); and b) research focused on the role of teacher education Departments. The role of teacher training is underestimated when it is limited to that of the 'provider' of teachers, rather than as an integral part of the wider education system (Ell et al. 2019).

It is of primary importance for both research and educational policy to abandon the assumption that there is a direct, linear and causal relationship between initial teacher education curricula and student learning, as such an assumption fails to recognize and grasp the complexity of the nature of initial teacher education, to perceive all the variables that contribute to student learning, and ultimately to contribute to the design of reform efforts that can contribute to significant change and to the ultimate teaching goal, which is student learning (Ell et al. 2018).

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Law 3848/2010

Law 4547/2018

Law 4957/2022

Table 1: Training courses for secondary education teachers

Courses	Number of Departments
Mathematics	8
Physics	5
Chemistry	6
Biology	6
Geology	3
Geography	2
IT	8
Philosophy	3
History/ Archaeology	9
Languages / Philology	7
Foreign Languages	6
Theology	4
Music Studies	3
Visual Arts	4
Economy & Sustainable Development	1
Total	75

Table 2. Necessity of training in pedagogical and instructional methods (%)

	None	Little	Enough	Considerable	Absolute
How necessary do you consider teachers' training in pedagogical and instructional methods?	2.4	1.8	7.3	12.7	75.8

Table 3. When do you think is the best time to provide prospect teachers with pedagogical and instructional training?

	%
Along with obtaining the basic degree, without extending the duration of the studies and with an increase in ECTS	31.1
After obtaining the basic degree and before appointment to a school by means of attending a special pedagogical and instructional training program	31.1
Parallel to obtaining the basic degree, without extending the duration of the studies and without an increase in ECTS	23.2
Parallel to obtaining the basic degree as a separate direction in the curriculum of the Department	23.2
Parallel to obtaining the basic degree and by extending the duration of the studies	13.4
After appointment in primary and secondary education and before undertaking teaching duties by means of attending a special pedagogical and instructional	11.0

training program	
After appointment in primary and secondary education and in parallel with the assumption of teaching duties by means of attending a special pedagogical and instructional training program	8.5
All the above options	8.5

Table 4. Number of courses, duration, institutions/bodies

Semesters	%	Number of courses	%	Bodies	%
Two	45.1	1-5 courses	66.3	The Departments that provide the basic degree in cooperation with Departments and Schools of Education	64.0
One	39.0	6-10 courses	28.2	At national level by bodies of the Ministry of Education	17.1
Three	6.7	11-15 courses	2.5	Faculties or Departments of Education Sciences	9.1
Four	4.3	15+ courses	2.5	ASPAITE (School of Pedagogical and Technological Education)	4.3

Table 5. How necessary do you consider the following subjects as to the content of a pedagogical and instructional training program?

	Not at all	Little	Enough	Considerable	Total
Pedagogical Internship (laboratory and/or fieldwork)	2.4	-	7.3	21.3	68.9
Pedagogical Understanding of the Subject	3	6.7	6.7	15.2	68.5
Teaching Design/ Teaching Methodology	1.3	2.5	6.9	22.5	66.9
Psychology (cognitive; developmental; educational)	3	4.2	12.7	24.2	55.8
ICT in Education	1.9	4.3	14.3	29.8	49.7
Educational Assessment	2.4	3	17.1	28	49.4
Curriculum & Textbooks	4.3	7.4	27.6	24.5	36.2
Intercultural Education	9.2	8	21.5	28.8	32.5
Sociology of Education	10.4	7.4	29.4	22.7	30.1
Special Education/ Inclusive Education	7.9	7.9	20.1	36	28
Education and gender	12.9	9.2	28.8	25.8	23.3
Philosophy of Education	14.6	15.2	32.9	18.9	18.3
History of Education	17.7	21.3	34.8	15.9	10.4
Management and Organization of Education	15.5	11.2	41.6	23.6	8.1