Faculty views, practices, and priorities for training and professional development: a case study in two Greek peripheral Universities

CHRISTOS KALTSIDIS[1], CHARIKLEIA ORFANIDOU[1], KATERINA KEDRAKA[1], THANASSIS KARALIS[2]

[1]Laboratory of Teaching and Professional Development of Bioscientists
Department of Molecular Biology and Genetics
Democritus University of Thrace, Greece
ckaltsid@mbg.duth.gr
corfanid@mbg.duth.gr
kkedraka@mbg.duth.gr

[2]Laboratory of Pedagogical Research and Lifelong Education
Department of Educational Science and Early Childhood Education
University of Patras, Greece
karalis@upatras.gr

ABSTRACT
This article presents the main results of a large-scale anonymous survey at two Greek Universities, namely the Democritus University of Thrace and the University of Patras, funded by European Union (National Strategic Reference Framework), that aims to identify the Greek in-service faculty educational needs. The survey instrument was developed based on two focus groups with faculty members of the participating Universities and literature review. The questionnaire consisted of 34 closed- and open- ended items and was fully completed from a total of 260full-time faculty members. The study explored the perceptions of faculty teaching role, current teaching practices, evaluation and professional development and priorities in training preferences for several faculty development topics. Our findings show that faculty members consider teaching as a very important dimension of their role, they use a variety of educational techniques, but they mainly base their teaching in lecture. They declare that educational background of their students and the level of communication with them constitute problems to their teaching practice, along with issues related to infrastructure. As for the areas for a possible training, they prefer issues related to the use of new technologies and distance education, the development of critical thinking of their students, and participatory and active teaching techniques.

KEYWORDS
Higher Education / University Pedagogy, faculty development, educational needs, academics training preferences, perspectives on teaching and learning

RÉSUMÉ
Cet article présente les principaux résultats d'une enquête anonyme dans deux universités grecques, l'Université Démocrite de Thrace et l'Université de Patras, financée par l'Union

européenne (National Strategic Reference Framework), qui vise à identifier les besoins éducatifs du corps professoral. L'instrument d'enquête a été développé sur la base de deux groupes de discussion avec des membres du corps professoral des universités participantes et sur la revue de la littérature. Le questionnaire comprenait 34 questions fermées et ouvertes et a été entièrement rempli par un total de 260 membres du corps professoral. L'étude a exploré les perceptions / perspectives du rôle d'enseignant du corps professoral, les pratiques d'enseignement actuelles, l'évaluation et le développement professionnel et les priorités en matière de préférences / intérêts en matière de formation pour plusieurs sujets de développement du corps professoral. Nos résultats montrent que les membres du corps professoral considèrent l'enseignement comme une dimension très importante de leur rôle, ils utilisent une variété de techniques pédagogiques, mais ils basent principalement leur enseignement sur le cours magistral. Ils déclarent que les antécédents scolaires de leurs élèves et le niveau de communication avec eux constituent des problèmes pour leur pratique d'enseignement, ainsi que des problèmes liés aux infrastructures. Quant aux domaines d'une éventuelle formation, ils privilégient les problématiques liées à l'utilisation des nouvelles technologies et à l'enseignement à distance, au développement de la pensée critique de leurs étudiants et aux techniques d'enseignement participatives et actives.

MOTS-CLÉS
Enseignement supérieur / pédagogie universitaire, développement du corps professoral, besoins éducatifs, préférences de formation des universitaires, perspectives sur l'enseignement et l'apprentissage

INTRODUCTION

Massification of higher education, increasingly affects almost all areas of university life. Further challenges for the already demanding profession of academic teacher constitute the diverse needs of students, inclusive education for all students while inequalities in higher education participation still exist (European Commission, 2019), internationalization of academic body, immense technological and scientific development, shrinking funding after 2007 global economic crisis (Pleschová et al., 2012), marketization of higher education (King & Bunce, 2020), preparation for life as active citizens in a democratic society and personal development (Bergan, 2006), calls for holistic development of students (Quinlan, 2011), Information and Communication Technology (ICT) and the rise of social media (Cameron & Woods, 2016) and online teaching and distance learning due to COVID-19 pandemic (UNESCO, 2020) constitute further.

Academics are considered as the main and "most important learning resource" (EAQAHE, 2005, p. 17) available to students and therefore a call for professionalizing higher education teaching is raised (European Commission, 2013; Pleschová et al., 2012). Within higher education sector the development of academics' teaching skills is a priority in order to create and understand how to facilitate students' learning in digital environments and distance learning are crucial (UNESCO, 2020). This is a difficult duty, because this knowledge is complex and demands extended pedagogical competences of academics to be managed (Pleschová et al., 2012). Students need to be familiarized with immense technological development and academics need to include digital and educational technologies to their teaching to ensure that. However, although the importance of teaching practices that promote active and significant learning to higher education, such as a student-centered approach, is recognized, old teaching approaches are

remaining until nowadays, due to lack of educational development programs that leads academic faculty to reproduce their own experience as students (Pleschová et al., 2012). University or Higher Education Pedagogy is a relatively new research filed of Educational Sciences, but during the last twenty years published articles seem to be nine times more than all previous years (Karalis, 2020), as a result of the expansion of research and policy making interest in this area.

In Greece University Pedagogy started emerging as a research field during the last decade (Anastasiades & Karvounis, 2010; Gougoulakis & Economou, 2014, 2016; Karalis, 2020; Karalis & Raikou, 2020; Kedraka, 2016; Kedraka & Dimasi, 2016; Kedraka & Rotidi, 2017; Raikou & Karalis, 2011; Vergidis, 2016). In a case study of Rotidi et al. (2020), involving fifty-eight Greek academics from the Ionian University, findings revealed the need for faculty's training regarding teaching, communication skills and the utilization of new technologies. However, a needs assessment to examine what would meet the needs of all faculty members of Greek Universities does not appear to have been carried out until now. In this article we are going to present the results of the very first study in Greece aiming at recording the opinions and practices of faculty members related to their teaching as well as to identify their needs for a possible training on teaching and learning issues.

THE EMERGING FIELD OF UNIVERSITY PEDAGOGY

Åkerlind (2007) argues that academics understand their own development as university teachers through an increased comfort for teaching, expanded knowledge and skills, both for content and teaching strategies, and increased focus on students' learning and development. Brookfield (1995, 2009) introducing a reflective model on teaching, underlines faculty's ability to know how to learn, through Self-Directed Learning, their continuous effort to catch up with the latest data and knowledge concerning their scientific field. The term 'faculty development' is met in the USA, however, in Europe and Australia, as Beach et al. (2016) note, the terms 'educational development', 'staff development' and 'professional development' are also used and usually refer to the development of the educational role of academics. For the purposes of this article, faculty development is considered the most appropriate for its role on improvement faculty's teaching ability/skills and students learning outcomes.

Faculty's educational competence is an important condition for ensuring the provision of quality education. Boyer (1990) highlighted this issue as one of the most controversial in the literature on the quality of teaching. However, there is still a concern in the academic community whether university teaching should focus on learning outcomes rather than educational processes (McInnis, 2003). Thus, the discussion on issues of teaching adequacy of the teaching staff of Universities focuses mainly on the issue of unequal prestige of teaching in relation to research, as reflected in the promotion and career evolution of the members of the university community. Indeed, research and publications give prestige, titles and funds, while teaching is often considered of "second interest" for the academic career (Kedraka & Dimasi, 2016).

European Union notes that the quality of teaching is also a critical issue in Higher Education. It is emphasized that both research and teaching should be supported, however, teaching is the one that primarily affects trainees 'outcomes, enhances graduates' employability and promotes European Higher Education institutions worldwide. Currently, only a few countries have strategies for promoting quality in Higher Education teaching, including the training of teaching staff in pedagogical skills. The above reflects the strong national and international concern about the importance of upgrading university teaching, which has led the EU education

policy institutions to make recommendations, looking forward to upgrading the prestige of teaching in Higher Education.

At national level, some European countries (Ireland, UK, Nordic countries, Belgium, the Netherlands) demanded a professional standards framework and continuing professional development of academics. The purpose of academic educational or teaching development is to help create learning environments that enhance educational quality. Although the importance of teaching practices that promote active and significant learning to higher education, such as a student-centered approach, is recognized, old teaching approaches are remaining until nowadays, due to lack of educational development programs that leads academic faculty to reproduce their own experience as students (Pleschová et al., 2012). A success-key for those programs is to build up educational practitioners. Institutions should engage academics, no matter from which discipline, with enthusiasm about teaching and knowledge of methods and approaches suitable for educate faculty and students.

University Pedagogy is known since the seventies (Gaff & Simpson, 1999) and led to the establishment of faculty training centers and courses on Pedagogy. Today, University Pedagogy is a distinct research area of Educational Sciences, with clear and important inputs from other fields as well. If we would try to identify the scientific areas from which, both over time and mainly today, University Pedagogy is irrigated, it is necessary to mention (Karalis, 2020):

a) The contribution from certain disciplines of university education. For example, the field of Medical Education or Engineering Education are fields that have developed theory and tools and have shaped specific areas of research,
b) new technologies and digital learning, especially in areas such as MOOCS (Massive Open Online Courses) or Flipped Classroom, which have grown rapidly over the last decade,
c) theoretical approaches from the field of Psychology and Learning Theories,
d) Adult Education, which is probably the first scientific field that has consistently entered the field of University Education in its theoretical and research agenda for about a hundred years.

Research in University Pedagogy field often deals with the scholarship of teaching and learning in higher education, a concept linked to student-centered pedagogy and as Kreber (2007) argues, to transformative learning, a continuous dialectical process of deconstructing a concept and building an alternative conceptualization. Students should not only engage with knowledge but also develop their capacity to understand and critically question existing ideas, assumptions and discourses upon their experiences and common-sense understandings of society (Cheng, 2011). This concept seeks effective university teachers to meet these challenges, aiming to co-meet the needs of academics, students and universities (Orfanidou et al., 2021).

The challenges universities face today and the required educational transformations, forced by the coronavirus pandemic effects in education (Karalis & Raikou, 2020; Kedraka & Kaltsidis, 2020), have a direct impact on academics, for whose support is provided and created through the Centers for Teaching and Learning (CTL), structures operating within academic institutions offering support for teaching staff and students. They first appeared in the second half of the 20th century, but they grew remarkably just in the last two decades. Given the particularity and variation among academic institutions around the world, there are significant differences both in terms of mission, functions, organizational structure (Hurtado & Sork, 2015). They offer training programs and consultation/support, while some other interesting areas of activities include the production of educational materials, events organizing, and support for the use of ICT. As for the content of the courses provided to teaching staff, we can conclude that the main

sectors are those of course design, teaching strategies, and feedback and assessment. For the courses and support provided to students, the main sectors of activities are those of studying strategies, academic success, and academic writing.

Greek legislation provides the opportunity under the Law 4009/2011, to establish Centers of Teaching and Learning (CTL) in Greek Universities. Thus, the University of Patras in 2016 and the Democritus University of Thrace in 2019 proceeded to the establishment of their CTLs. These structures aim to promote University Pedagogy, through actions focused on creating academic communities of innovation and continuous improvement of teaching work in universities. They aim at supporting faculty members and teachers to exchange and create good learning and teaching practices, to record their needs, to reflect, to develop modern and effective educational actions, by utilizing ICT in the teaching of university courses, in order to create educational environments that facilitate and support learning in the best possible way. It is worth mentioning that recently, the Aegean University and other Greek Universities have established or are on the way of establishing of their own CTLs, expanding the emerging interest for University Pedagogy in the higher education institutes.

LITERATURE REVIEW REGARDING FACULTY'S NEEDS ANALYSIS

Academics are high-skilled in their scientific and research field by the time they become faculty members, but as Arreola (2007) argues, most faculty have not received any systematic preparation within their doctoral studies for their teaching role. Thus, they tend to choose teaching methods based on their own experiences as students, their previous perceptions of teaching and learning, which usually differ according to their scientific field, and often are based on the old method of trial-and-error (Gibbs & Coffey, 2004). Moreover, experienced faculty resist to reformation of teaching practice, basically because of the unbalanced rewarding of faculty research over teaching efforts (Bouwma-Gearhart, 2008, 2012; Brookfield, 2000).

In bibliography we meet different models for the role of academics. WHO (2013) argues that there are three types of functions for academic teachers: the administrator, the educator and the researcher, forming a multi-dimensional role, where the teaching role is not afforded the same status or priority as that of research. Koster et al. (2005) developed a model based on six task areas on which faculty members focus: (a) their own personal and professional development and on that of colleagues; (b) educational curricula; (c) policy development; (d) activities for and with other academics; (e) Selecting/ assessing academics; (f) conducting research. Ellis et al. (2014) based their model on their survey and they identified ten job dimensions they in the work of an academic teacher: (a) Course management; (b) Personnel activities; (c) External examination/observing teacher trainees at another institution; (d) Observing teacher trainees /examination /at one's own institution; (e) Marking and grading; (f) Professional development; (g) Research; (h) Fostering and developing interpersonal relationships; (i) Working with a group of students (teaching); (j) Tutoring an individual student (academic supervision, lesson observation/debriefing. Lunenberg, Dengerink and Korthagen (2014) constructed a model based on a meta-analysis of 130 articles, which revealed six roles for an academic: (a) Teacher of teachers; (b) Researcher; (c) Coach; (d) Curriculum developer; (e) Gatekeeper; and (f) Broker. In 2008 Klecka et al. suggested their model consisting of five aspects that define the role of an academic as: (a) a teacher; (b) a scholar in teaching; (c) a collaborator; (d) a learner; (e) a leader.

Research in the field of University Pedagogy deals, among other topics, with the application and evaluation of specific educational techniques, to disseminate good practices. The

educational needs of academics are usually explored within each Department, School or University level, in order to be utilized in the design of educational programs. Their needs are often investigated in relation to the application/ integration of a specific educational technique, e.g. the use of ICT in teaching. Usually, research concerns the needs of academics in a particular scientific field, e.g. engineering, health sciences (Felder, 2004), coming from the same or similar faculties of different universities. There are only few studies trying to approach academics' general educational needs at a national level.

It is clear that effective faculty development requires an initial study on faculty's learning needs and preferences regarding their teaching and pedagogical role, so to result offering programs tailor-made upon their specific needs, since educational development programs should be relevant to academics' interests, knowledge and priorities to be beneficial (Opre, Zaharie, & Opre, 2008). Moreover, these training projects should apply to different subgroups of faculty who have different educational needs, based on their career stages (Post, 2011), age, gender and discipline. Faculty development areas should include instructional practices and how to best interpret pedagogical theories into courses to enhance learning and increase engagement of students (Berge & Haung, 2004; Varma-Nelson & Turner, 2017), elements estimated as mostly significant for urging higher education to offer quality educational services (EAQAHE, 2015). Although a detailed needs analysis is considered as the starting point for any further education activity, similar surveys are rather rare, as revealed from literature review.

A recent empirical study was conducted at the University of Bari, involving eight Italian Universities and focusing on the usual teaching practices, on the beliefs and needs of the teacher, on different aspects of teaching professionalism, revealed that some interesting results (Perla & Vinci, 2018). Faculty members are intrigued to get involved in a co-epistemological work of research, in reflection on their own practice, with respect to the effectiveness of the teaching syllabi and the internal coherence between training objectives and learning outcomes of teaching, in the alignment between expected learning outcomes, teaching methods, contents and methods among different scientific fields. They seem eager to discuss the theoretical interpretation of the relationship between didactics and disciplinary knowledge, to produce effective integrated work devices and teaching tools useful for the teacher's classroom work. They want to enhance the role of the student in learning (Serbati, Felisatti, & Dirkx, 2015) in the construction of didactic units and evaluation processes; Also, they seem ready to explore intervention models to support teaching professionalism, by using peer tutoring, peer coaching, faculty learning communities, networking, participation in staff development projects, with particular reference to development of the teaching quality assurance system (Ellis & Hogard, 2018).

In Croatia during the last few years, we can trace an emerging interest on the issue of academic profession competencies. A large scale research on a national level (see project "Academic Profession Competencies Profile: Between new Requirements and Possibilities" (APROFRAME), supported by Croatian Science Foundation, in 2014) on challenges and competencies for performing everyday academic duties was conducted on a sample of 1130 academics of all academic positions from seven public universities in Croatia. Results showed that teaching competencies are appreciated as important, therefore, two key challenges are formed: the need to revise the legislative framework regarding the academic promotion procedures, which would result in equal appraisal of their teaching and research work; and the need to invest in the academic development programs (Turk & Ledić, 2016).

In Spain a survey was conducted by the Universidad Complutense de Madrid on faculty attitudes and training needs to respond the new European Higher Education challenges. Faculty

responses indicate a clear need for guidance in new learning models integration and adequate coping strategies into their work in higher education (Díaz, Santaolalla, & González, 2010).

Snook et al. (2019) compared sessional and tenure-track faculty across a Health Science School in Iceland and they traced their training needs. The majority of sessional faculty receive limited instruction in pedagogy, they tend to feel isolated and struggle with their teacher identity, and are often assumed to vary in their commitment, motivation, and ability to teach. Sessional to tenure-track faculty were more interested in digital forms of training programs offered for faculty development.

The findings of a survey on faculty development needs assessment, conducted in four Romanian Universities, show that early career faculty are more interested in teaching skills improvement, compare to tenured faculty and that those from Social Science Departments tend to give a higher rate for teaching development strategies than their colleagues in Science fields (Opre et al., 2008).

Similarly, the results of a study in a Turkish University showed that the junior faculty expressed strong need for training on project-based learning, teaching large classes, motivating students, encouraging students about academic integrity, designing activities, assignments, and projects, preparing effective exams, giving constructive feedback, developing course website, integrating instructional technology into courses, and preparing for tenure and promotion (Güneri, Orhan, & Çapa Aydın, 2017). Filiz, Yurdakul and İzmirli (2013) argued that professional development needs of academics differ due to different professional fields and another faculty needs analysis survey in a Turkish State University revealed academics' strong need for English language skills to fulfill several academic purposes (Dincer & Koç, 2018).

METHODOLOGICAL ISSUES

Rationale of the study

As already mentioned, needs analysis is considered as the main preparatory research activity before the planning of any training intervention or program. The concept of need is defined on the basis of two different approaches (Gupta, 1999; Queeney, 1995), either as a gap or deficiency between an existing situation or as the one's motive to attend a program. In many cases a differentiation among need and want is apparent; need is referred to something more objective confirmed by the dimensions of the context, while want refers just to an expressed desire or demand of a specific target group members. When *needs* analysis is based only on the opinions of the target group, for example by analyzing the opinions derived from questionnaires of interviews, tends to be a *wants* analysis (or subjective needs identification), unless the characteristics of the target group can ensure that needs are investigated. In the research presented hereafter, the context of the intervention (higher education organizations) and the characteristics of the target group (university professors) contribute to considering that needs analysis is identical to a great extent with the opinions expressed by the research subjects. In fact, given the high level of expertise of the target group and the particularities of the context in this specific case, the subjective identification of needs seems to be the most reliable research option. In this case, in order to conduct a more exhaustive identification of training priorities, problems reported by the participants are of high value, as they may constitute possible areas for their training further education. The study presented in this article is the first one in the Greek context, which investigates how faculty members perceive their academic role, their current teaching practices,

the educational needs they recognize and the topics of training they prefer and prioritize. Some of the results were presented at the initial phase of analysis (Orfanidou et al., 2021).

Description of the sample

Data collection, through online questionnaire, took place between September and October 2020. Following cluster sampling, the participants of the study were 260 faculty members, teaching in two public Greek peripheral/regional Universities with similar structure and scientific disciplines, the Democritus University of Thrace (DUTH) and the University of Patras (UoP). DUTH is located in Thrace and consists of eight Schools that include a total of twenty Departments and serve 533 faculty of which 388 men and 145 women. UoP is located in Western Greece, with a central campus near the city of Patras, has seven Schools and thirty-five Departments and serves 725 (541 men and 184 women) faculty. An anonymous survey hosted on Limesurvey was emailed to the total of 1.258 faculty of the two institutions and it was answered by 301 university faculty. However, the fully completed questionnaires were 260 (response rate 20.67%), which finally consisted the sample of the survey (n=260). According to the demographic data of the sample we can argue that they are in analogy with the distribution of the participants in the population (in terms of rank and sex), therefore the results could be considered as generalizable for the case of those two universities.

Research tool and data analysis

The questionnaire was developed by the authors, following the literature review and the results of two focus groups with faculty members of both the participating universities. The questionnaire was organized in two parts. The first part had to do with participants demographics (6 questions), such as gender, age, rank, University, School and years of teaching experience in tertiary education. The second part of the questionnaire had a total of 34 questions, of which 3 was open-ended and 31 was closed ended questions. More specifically, closed ended questions were about the opinions of the participants for teaching as a dimension of their role, the problems they face in their teaching, their existing teaching practices, the areas they prioritize for a possible training, as well as their opinions for the contribution of Centers of Teaching and Learning for their professional development as teachers. A descriptive statistical analysis of the responses of the participants in the questionnaire was conducted. The analysis of the quantitative data collected from the questionnaire was done with the statistical program SPSS 22.0. Two types of statistics comparison were used, independent paired samples t-test and chi-square. Given that the questionnaire was developed by the research team and is the very first research tool to record needs of academics, we conducted Cronbach's a reliability test for all the six groups of items. Cronbach's a varied between 0.576 to 0.885.

RESULTS

The analysis of data with regard to the academics views on their duties and teaching role showed the following: Initially, academics were asked to determine the percentage (between 0 and 100, with a sum of 100%) of the professional time they spend between nine pre-defined tasks / activities, as presented in Table 1.Most of the time of the academics, after grouping, is dedicated to their teaching duties and specifically, to the teaching in undergraduate and postgraduate courses (M = 24.67 SD = 11.071), the supervision of theses at the undergraduate and

postgraduate/doctoral level (M = 12.50 SD= 6.128) and meetings with students (M = 7.67 SD = 4.245). Afterward, they devote their time to research tasks, i.e. research (M = 16.62 SD = 8.659) and writing and publishing (M = 13.44 SD = 7.519). Then in the administrative tasks, such as the administrative work in the Department (M = 10.94 SD = 9.014), the evaluation work (e.g. participation in crisis/promotion committees) (M = 5.62 SD = 3.755) and administrative work in the University (M = 3.85 SD = 5.365). Finally, they dedicate their time to other tasks (M = 3.92 SD = 11.423), where using the T-test of independent samples, a statistically significant difference is observed between women and men (t = -2.737 p = 0.007), with women devoting most of their time (M = 7.11 SD = 16.005) than men (M = 2.24 SD = 7.537) in other tasks.

TABLE 1

Faculty professional time spent on different professional activities

Duties	N	Minimum	Maximum	Mean	Std. Deviation
Teaching (undergraduate and postgraduate courses)	260	0	60	24.67	11.071
Meetings with students	260	0	20	7.67	4.245
Supervision of theses (at undergraduate and postgraduate / doctoral level)	260	0	30	12.50	6.128
Evaluation work (participation in crisis committees, etc.)	260	0	20	5.62	3.755
Administrative work in the Department	260	0	75	10.94	9.014
Administrative work at the University	260	0	40	3.85	5.365
Research	260	0	50	16.62	8.659
Writing and publications	260	0	50	13.44	7.519
Other	260	0	70	3.92	11.423
Valid N (list wise)	260				

They were then asked to answer questions about their role in four 4-point Likert questions (Not at all, Little, Enough, Much), as shown in Table 2. Almost all (Enough = 12.85, Much = 86.4%) the participants consider their educational work important. The vast majority (Enough = 35%, Very much = 59.8%) consider that the role of the faculty member also has a broader pedagogical and counseling dimension. The majority (Enough = 40.9%, Much = 44.1%) consider that the role of the faculty member includes the enhancement of the emerging adulthood of students. A large part of the participants (Enough = 53.3%, Much = 16.1%) believe that the way they teach has been influenced by their personal experiences as a student. There is a statistically significant difference between men and women, as after the use of the chi-square test it was found that women seem to believe that they have been more affected by their personal experiences as students than men ($\chi 2$ = 13.641, df = 6, p = .034).

TABLE 2

Faculty views on their teaching role

Role dimensions	Not at all	Little	Enough	Much	Total
How important do you consider the teaching part of your profession?	1 0.4	1 0.4	33 12.8	223 86.4	258 100
Do you think that the role of the faculty member has a broader pedagogical and advisory dimension?	3 1.2	10 4.0	88 35.0	150 59.8	251 100
Do you think that the role of the faculty member includes the strengthening/enhancement of the emerging adulthood of students?	10 3.9	28 11.0	104 40.9	112 44.1	254 100
Do you think that the way you teach has been influenced by your personal experiences as a student?	10 3.9	68 26.7	136 53.3	41 16.1	255 100

Moving on to faculty current teaching practices and perceptions of teaching and learning, respondents were asked to rate eleven elements, from a pre-defined list, which was formed on the basis of the literature review, on which a "good" teaching is based. They rated each of them on a scale of 1 to 10, depending on how important they considered each one of them and the means and standard deviations are presented in Table 3. From the results, it seems that the main elements on which a "good teaching" is based are the correct preparation of the teacher (M = 9.43 SD = 1.051) in combination with the excellent knowledge of the discipline (M = 9.27 SD = 1.073) and good communication with students (M = 9.16 SD = 1.097). It should also be noted that both the experience (M = 8.41 SD = 1.671) and the gift (M = 8.13 SD = 2.086) of the teacher are also considered important. Instead, less important seems to be the cooperation with colleagues (M = 6.53 SD = 2.281) and the methods they have learned from their teachers (M = 6.02 SD = 2.260).

TABLE 3

Elements on which a "good teaching" is based

Elements of "good teaching"	Mean	SD
Training in methods of didactic methodology	7.60	2.091
Teaching experience	8.41	1.671
Excellent knowledge of the discipline	9.27	1.073
Collaboration with colleagues	6.53	2.281
Use of new technological means and applications	7.53	2.023
Good communication with students	9.16	1.097
In the gift of teachers	8.13	2.086
Proven, well-known methods, learned from your teachers	6.02	2.260
Adoption of 'good practices' that you encountered during your own educational journey	8.29	1.756
Knowledge that you acquired yourself about teaching methods	7.70	2.077
Good preparation of the teacher before each lecture / laboratory / clinic	9.43	1.051

Participants were then asked to answer questions about the teaching techniques and the time for which they use them in different types of courses. Their teaching is mainly based on lecture, as it results from our findings that almost everyone uses lecturing in their teaching (Enough = 41.8%, Many = 50.8%) and in fact the average time of its use is almost double(65%) than that available in other educational techniques (35%). Although in general both sexes often use the lecture (Men= 92.1% and Women = 93.3%), there is a correlation with gender (x2 = 9.746, df = 3, p = 0.021), as men state that they use the lecture a lot (57.2%) in their teaching in a higher percentage than women (38.9%), while women state that they use it much (54.4%) more often than men (34.9%).

Participants are not limited to the use of lecture, but a large part of them state that they use other/different educational techniques/teaching methods (75.8%) (Table 4).The use of these methods differs for the elective courses in relation to the compulsory ones by some participants (32.9%), the postgraduate courses in relation to the undergraduate courses by half (54.2%) and the laboratory courses in relation to the theoretical courses by the majority (80.9%).There is a correlation with the rank ($\chi 2 = 6.065$, df = 2, p = .048), with faculty members of the lower ranks (Assistants, Associates) using different teaching methods for the laboratory courses in relation to the theoretical ones more than the Professors.

TABLE 4

Use of different teaching methods

Teaching techniques	Yes	No	Total
Do you use other training techniques?	194 75.8	62 24.2	256 100
Do you use different teaching methods for the compulsory courses from the elective courses?	85 32.9	173 67.1	258 100
Do you use different teaching methods for undergraduate courses than postgraduate courses?	137 54.2	116 45.8	253 100
Do you use different teaching methods for laboratory courses than theoretical ones?	203 80.9	48 19.1	251 100

The frequency of other/different teaching techniques use varies based on the type of courses taught. According to the participants' answers to 4-point Likert questions (Never, Sometimes, Often, Always) they seem to apply them, with decreasing frequency / classification, as following (Table 5): much frequently in laboratory courses (81%), frequently in elective courses (71,6%) and postgraduate courses (71%) and finally less frequently in compulsory courses (57.6%).

TABLE 5

Frequency of other teaching techniques used

Frequency of use	Never	Sometimes	Often	Always	Total
If YES, how often do you use them in compulsory courses?	11 5.8	70 36.6	78 40.8	32 16.8	191 100
If YES, how often do you use them in elective courses?	4 2.1	50 26.3	82 43.2	54 28.4	190 100
If YES, how often you use them in	11	23	73	72	179

laboratory courses?	6.1	12.8	40.8	40.2	100
If YES, how often do you use them in postgraduate courses?	10 5.3	44 23.7	74 39.8	58 31.2	186 100

Participants were then asked to answer what caused problems possibly they encountered during their teaching. They were given a list of 17 topics / causes, which they had to score on a 4-point Likert scale (Not at all, Little, Enough, Much). These topics were organized into categories and subcategories during the analysis. The problems seem to be attributed to two categories of factors / causes: external and internal factors (Table 6). In the category of external factors there are two subcategories: the first concerns student related factors / issues and the second environment related factors. The same applies to the category of internal factors, where the two subcategories are about (lack of) time and teaching practice.

As shown in Table 6, participants attribute the problems they face in their teaching mainly to external causes/factors: (a) primarily to causes/factors related to students, such as previous lack of students' knowledge (Enough=36.8%,Much=32.4%), the difficulty in students' understanding of the cognitive content (Enough=30.6%,Much=20.2%), students' attendance at classes (Enough = 25.8%, Much = 24.2%), lack of interest from students (Enough = 22.3%, Much = 23.1%), students' behavior (Enough = 25.9%, Much = 8.4%) and level of communication with students (Enough = 10.4%, Much = 1.6%), and (b) secondly environmental or organizational factors, such as teaching infrastructures (Enough = 36.4%, Much = 19.6%), teaching space (Enough = 29.6%, Much = 25.2%), curriculum (Enough = 19.8%, Much = 9.1%), course schedule (Enough = 16.0%, Much = 8.4%) and lack of cooperation with colleagues, teaching staff or other associates (Enough = 10.0%, Much = 3.6%).

The internal factors that cause problems on their teaching are less rated from academics than external and concern: (a) issues related to the lack of time due to administrative (Enough = 27.8%, Much = 17.9%) and research obligations (Enough = 23.0%, Much = 13.9%) and (b) issues related to didactics, such as lack of knowledge about the use modern technological means and software / applications (Enough = 13.1%, Much = 3.2%), their lack of knowledge on teaching methods and techniques (Enough = 12.0%, Much = 3.6%), their teaching planning (Enough = 4.4%, Much = 0.4%) and lack of personal interest in teaching (Enough = 2.4%, Much = 1.2%).

TABLE 6

Factors that cause problems in teaching practice

	Not at all	**Little**	**Enough**	**Much**	**Total**	**Rank**
External causes/factors						
Student-related						
Previous lack of students' knowledge	17 6.7	61 24.1	93 36.8	82 32.4	253	1
Difficulty in students' understanding of the content	43 17.1	81 32.1	77 30.6	51 20.2	252	4
Students' attendance at classes	41 16.3	85 33.7	65 25.8	61 24.2	252	5
Students' lack of interest	43 17.4	92 37.2	55 22.3	57 23.1	247	7
Students' behavior	91	74	65	21	251	9

	36.3	29.5	25.9	8.4		
Level of communication with students	131 52.2	90 35.9	26 10.4	4 1.6	251	15
Environment-related						
Infrastructure	31 12.4	79 31.6	91 36.4	49 19.6	250	2
Teaching space	47 18.8	66 26.4	74 29.6	63 25.2	250	3
Curriculum	102 40.5	77 30.6	50 19.8	23 9.1	252	10
Course schedule	110 44.0	79 31.6	40 16.0	21 8.4	250	11
Lack of cooperation with colleagues, teaching staff or other associates	128 51.0	89 35.5	25 10.0	9 3.6	251	14
Internal factors						
Time-related						
Lack of time due to administrative obligations	64 25.4	73 29.0	70 27.8	45 17.9	252	6
Lack of time due to research obligations	71 28.2	88 34.9	58 23.0	35 13.9	252	8
Didactic-related						
Lack of knowledge about the usemodern technological means and software / applications	134 53.4	76 30.3	33 13.1	8 3.2	251	12
Lack of knowledge on teaching methods and techniques	132 52.8	79 31.6	30 12.0	9 3.6	250	13
Teaching planning	142 56.8	96 38.4	11 4.4	1 0.4	250	16
Lack of personal interest in teaching	205 81.7	37 14.7	6 2.4	3 1.2	251	17

The vast majority of participants argue that they do not face any problems in their teaching (Not at all = 8.7%, Little = 80.6%) and almost all of them consider it easy to communicate with students during the course (Enough = 43.2%, Much = 51.8%). However, most participants believe that their teaching can be improved (Enough = 60.3%, Much = 12.3%).

As for the questions regarding the evaluation and improvement of the quality of their teaching, according to our findings the majority of the sample (Enough = 51.8%, Much = 29.2%) would like to apply in practice alternative teaching methods (except from lecture) (Table 7). There is a strong correlation with gender ($\chi 2$ = 12,833, df = 3, p = .005), with women desiring more than men to apply alternative teaching methods in practice. More than half (Enough = 36.4%, Much = 22.9%) believe that their teaching would be more effective if they had specialized knowledge of modern technological means and software (Table 7).

Most participants (Not at all = 11%, Little = 52.9%) do not discuss effective teaching methods / techniques with their colleagues (Table 7).There is a statistical correlation to gender ($\chi 2$ = 11,834, df = 3, p = .008), with men stating that they never discuss with their colleagues issues of effective teaching methods / techniques in a much higher percentage (15.6%) than women (2.3%).

At last, the participation of the respondents in pedagogical and/or teaching development activities was investigated. Although more than half (56.5%) have not taken part in any kind of training in pedagogical and / or teaching methodology, 61.2% of the participants (Enough = 36.9%, Much = 24.3%) considers that the training of faculty members in teaching and learning should be taken into account in their promotion to the higher rank. The vast majority of participants (89.8%) (Enough = 54.1%, Much = 35.7%) stated that they are willing to modify the way they teach in order to be more effective in their teaching.

Participants were asked to choose and rate 3 out of 10 topics on which they would be interested in if they would participate in some kind of training (Table 8). From the results, it seems that the main topics on which they would be interested in are the development of innovative and critical thinking skills in students (Total = 111, 1st choice = 38), utilization of new technologies (Total = 83, 1st choice = 61), modern e-learning software (Total = 81, 1st choice = 27), pedagogical issues in distance education (Total = 79, 1st choice = 31), active learning techniques (Total = 78, 1st choice = 26), techniques and ways of evaluation and feedback of students (Total = 58, 1st choice = 5) and theoretical approaches to learning and teaching (Total = 53, 1st choice = 25).

TABLE 7
Preferences of topics for training

Topic	1st Choice	2nd Choice	3rd Choice	Total
Theoretical approaches to learning and teaching	25	10	18	53
Utilization of new technologies	61	10	12	83
Pedagogical issues in distance education	31	29	19	79
Management of behavioral and communication problems	14	17	13	44
Modern e-learning software	27	39	15	81
Active learning techniques	26	39	13	78
Development of innovative and critical thinking skills in students	38	37	36	111
Techniques and ways of evaluation and feedback of students	5	21	32	58
Characteristics and learning needs of students	2	20	20	42
Movement, body language, orthophony	11	10	19	40
Total	**240**	**232**	**197**	

DISCUSSION

In the current research, which is the first one conducted in Higher Education in Greece, although on a scale of only two Universities, the views of university professors are recorded on issues related to their views on teaching as part of their professional role. The survey was answered by 301 faculty members, however, the fully completed questionnaires are 260 out of a total of 1.258 faculty members of the two institutions. 170 men and 90 women answered the questionnaire. Of course, the problem of under-representation of women in academia is not a Greek but an international phenomenon (European Commission, 2016; Mifsud, 2019; UNESCO, 2012),

despite efforts at European and international level to overcome obstacles and ensure equality (European Commission, 2019). Their age distribution follows a normal distribution curve, but it is interesting that relatively older university faculty members who would be expected due to proximity to retirement not to be interested in this issue, were the ones who participated in the research to a greater extent. At the same time, the questionnaire was answered by more faculty members of higher ranks (184 Professors and Associate Professors while the Assistant Professors and Lecturers were 76), while those with teaching experience in universities over 15 years were 168.

Results revealed a strong emphasis given by academics to the teaching dimension of their role, followed by research tasks. It seems that academics spend most of their time working with their students: on teaching and supervision of theses at the undergraduate and postgraduate/doctoral level and meetings with them. A second task they devote their time is research, the two main elements we meet in Klecka's et al. (2008) model. Administrative work in their Department, followed by evaluation work (e.g. participation in promotion committees) and administrative work in the University are considered moderate important but still demanding time and work from academics, as Koster et al. (2005) argued. These findings are in agreement with those of another study, which similarly demonstrated that carrying out research is not viewed as the major essential aspect of faculty members' tasks (Berry, 2007). The spectrum of activities required from faculty members, includes several tasks from teaching a discipline and its related pedagogy, to students' assessment and supervising theses and practicum, to counseling and career guidance, to conducting research, from completing demanding publishing procedures, participating in conferences, to designing curricula, and participating in academic committees (Grobgeld et al., 2016).

The majority of the participants not only consider their educational work important, but they also seem to believe that their role as faculty members hasa broader pedagogical and counseling dimension, including the strengthening/enhancement of the emerging adulthood of students. This is a very important finding, because it reveals a need for pedagogic proficiency and proves that faculty, although deeply interested in their research which leads to their own professional development, as Koster et al. (2005) argue, are deeply dedicated to their mission as educators. Grobgeld et al. (2016) have reached the same result, since they tracked a deep commitment to teaching aspects of faculty's role.

A large part of the participants -almost 70% of them- believe that the way they teach has been influenced by their personal experiences as ~~a~~ student, especially for women, who seem to believe that they have been more affected by their personal experiences as students than men. Indeed, academics like all teachers, tend to imitate teaching attitudes, methods and concepts of their own teachers (Kreber, 2007).Teaching, as a basic mission of higher education, is provided to be based on scientific knowledge and tested / reflected experience. Therefore, the way they teach, probably, has been influenced by their own experiences as students and they tend to be reflected on the way they themselves teach, some decades afterwards, when they take on the role of educator. This finding, though, contradicts the moderate scores in the answers regarding the importance of "Proven, well-known methods, learned from your teachers". It seems it is rather a discourse which determines whether what we believed continue to be valid and functional or we need to review and re-evaluate our values, perceptions and attitudes through new experiences. Dewey argues that for the adults, reflection on experience is a key element of any educational process (Raikou & Karalis, 2020), while Cranton (2006) states that critical reflection on experiences should be a clear goal of adults, especially for educators, to become more open to new ways of thinking. Illeris (2007) refers to the importance of the reflective function on the

experiences of the instructor, an element that influences the formation of any kind of learning - especially critical learning. The process by which established beliefs and assumptions are challenged is critical reflection, which can help adults critically examine the rationale for their interpretations and form "a new revised interpretation of their experiences as a guide to empathy and action" (Mezirow, 1991, p. 35). Greek academics show less reflection on their Instructional knowledge than pedagogical and curricular knowledge and attributes this finding to the lack of comprehensive professional development programs (Rotidi et al., 2016).

Regarding the elements considered important for a "good teaching", the most popular elements was the preparation before teaching. In fact, preparation in the planning of any educational action is considered a cornerstone of any teaching. The deep knowledge of the discipline along with the smooth communication with students (but not necessarily with colleagues!) and faculty's experience, often enriched by 'good practices' that they encountered during their own educational journey, followed. Although the survey was conducted in September 2020, where the Covid-19 pandemic had forced universities to move on with online education, faculty members do not seem to praise the knowledge of technological means and software. They seem familiar with the need for ICT skills as an important parameter for the success of distance learning courses -a distinct one from the well-known one of conventional education, since technology plays a catalytic role in the educational process during online delivery of courses. Online education demands not only a variety of skills on the technical level (eg, tools, platforms, software) but also on the pedagogical, communicative, counseling, and inspirational aspect of teaching. Therefore, academics, must reconsider their ability to successfully run their courses, taking into account the multiple dimensions of their performance as tutors in distance learning of nowadays (Siemens, Gasevic, & Dawson, 2015).

A finding which was not expected, though, was the importance they seem to pay on the "gift" (or charisma) of academics, in order to perform an adequate course. Even more, since an academic in Klecka et al. (2008)'s model, is considered as a learner, meaning he/she has undoubtedly learnt how to learn, and is aware that teaching depends on training, skills and outcomes of hard studying and work. A possible interpretation is that they may feel anxious and insecure for any poor teaching background they may have. Of course, a gifted lecturer, even with very little class interaction, can motivate and inspire his/her audience. According to Trigwell, Prosser and Taylor (1994) lecture is a teacher-focused transmission of knowledge, but it may turn to a kind of student-focused in the sense that they are aware of passing on enthusiasm and active participation. Nevertheless, the ability of the modern university teacher cannot be based only on his/her talent but on focused training, in the context of a university culture that, once developed, incorporates pedagogical and didactic learning approaches suitable for students and based on active learning (Kedraka, 2016). Lecture, thus, seems to be the "good old" safe teaching tool, especially in undergraduate compulsory and elective courses, whereas in laboratory and postgraduate courses they seem to prefer more interactive methods, maybe due to smaller numbers of students in class and the practical character of these courses. Therefore, a lecture may be linked to some practical activity, and act as a briefing, to introduce activities and skills' procedures within the fieldwork learning time (Higgs & McCarthy, 2005). Both faculty and students argue that learning that takes place in practical fieldwork is described as interesting, meaningful and comprehensive (Sanders, 2004).

Most of the participants academics argue that they do not face any problems in their teaching and almost all of them consider it easy to communicate with students during the courses. Communication with students is evaluated as an element of "good" teaching, which is emphasized by Pleschová et al. (2012), who believe that good teaching should be based, among

other things, on frequent and good communication between students and their teachers, also emphasized in the Teaching Criteria and Standards in Australia, for quality teaching (Chalmers et al., 2014). However, they attribute problems they may face in their teaching mainly to external causes/factors, and surprisingly to causes/factors related to students, such as previous lack of students' knowledge, the difficulty in students' understanding of the cognitive content, students' attendance at classes, lack of interest from students, students' behavior and level of communication with students. Secondly, they state environmental / organizational causes/factors, such as inadequate teaching infrastructures and teaching accommodations, curriculum, educational planning, course schedule and lack of cooperation with colleagues, teaching staff or other associates.

It is interesting that academics seem rather reluctant to discuss effective teaching methods / techniques with their colleagues, with men more than women stating that they never discuss with their colleagues issues related to effective teaching methods / techniques. They are likely to feel embarrassed or even anxious, given the competitive nature of university relations (Boyer, 1990; Vergidis, 2016). Perhaps, in the context of a psychoanalytic dimension of explanation, it is essentially a defense mechanism as a stress response of a professional group, which one has to face a new task (and challenges) in a specific work context (Bion, 2013).

However, most of them believe that their teaching can be improved. Concerning the evaluation and improvement of the quality of their teaching, the majority of our sample is willing to adopt alternative teaching methods (apart from lecture). It is interesting that women seem more open than men to apply alternative teaching methods in practice. ICT is considered an important element for an effective teaching. It is very interesting that the participants in the present research, academics (specifically 229 out of 260) are open and willing to modify the way they teach, in order to achieve better results with their teaching. In fact, they clearly state that they would be willing to participate in some type of education in order to achieve it, although in the literature the lack of educational programs, time and motivation are mentioned as obstacles to the desired pedagogical change of academics (Brownell & Tanner, 2012). Gibbs and Coffey (2004) emphasize that the improvement of teaching skills of university and students' learning outcomes is observed more in academics who participated in educational development programs than in those who did not participate in similar trainings.

Gibbs and Coffey (2004) found that adopting a student-centered approach to learning and improving students' teaching approaches and learning outcomes were more common in academics who participated in educational development programs than in those who did not. Academic Learning Communities, as we know them from Boyer (1990), provide opportunities for professional and personal development within the University, through structured or non-structured activities (Glowacki-Dudka & Brown, 2007). Kreber (2007) argues that educators engaged in learning activities through participation in peer-to-peer programs, teaching workshops, actively seeking feedback from students, experimenting with alternative methods teaching, reading theoretical articles on teaching and learning and attending relevant conferences, positively affect self-regulated learning in the field of didactic knowledge. Faculty who took part in our survey when asked to choose and rate 3 out of 10 topics on which they would be interested for training, if they would be offered the chance, seem that they would be interested to be trained in the development of innovative and critical thinking skills for students, in issues related to modern e-learning software and pedagogical aspects of distance education, in active learning techniques to assessment techniques and ways of evaluation and feedback, and finally, to theoretical approaches related to learning and teaching.

CONCLUSIONS

In this paper we presented the results of the first research on the educational needs of teachers in Greek universities. Given that higher education systems internationally have contextual characteristics, which arise from their history and educational tradition, but also from the socioeconomic environment of each country, we consider the results of this research to be useful as they reflect the situation in Greek universities. Despite the fact that the research was conducted on only 2 universities out of 24 in the country, the findings are reasonably expected to reflect the situation in Greek higher education, since all Greek universities are public, their establishment is based on similar conditions of initial operation, while the same conditions apply for recruiting teachers. We consider very important the finding that academics consider their teaching role as core, among several, multitasking duties. However, there is a need for improvement regarding their teaching practices. Preparation, excellent knowledge of the discipline, easy communication with students, experience but also ICT skills and a natural inclination, a so called "talent", form their beliefs for a "good teaching", leaving behind training and background in teaching and learning. But they would rather like to improve their teaching performance through training and working with colleagues, by setting up networks to exchange views and discuss good practices.

The present research highlighted the need for honest and serious evaluation - and upgrading, if necessary - of the pedagogical / teaching ability of faculty members in Greece, as noted by Vergidis (2016), who argues that we need to move towards the "how" and the "why" regarding teaching in higher education, that is to critically reexamine the basic assumptions of faculty for teaching and learning, and ultimately, the didactic actions through which they fulfill educational goals and perceptions. Finally, we consider that it also highlighted the particularly positive predispositions of faculty to upgrade their teaching practices and therefore the need for supportive structures, within developmental initiatives and provision of suitable training for the enhancement of teaching in the Greek Higher Education system.

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