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Professional Development for Effective Teaching in Higher Education

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ABSTRACT

Improved instruction leads to effective student learning, which is one of the key elements for the success of the higher education institutions. Most faculty members begin teaching professionally based on their experiences as university students, without completing any formal professional development program. The aim of this study is to investigate the needs of faculty members in a newly established private university in İstanbul to improve their teaching and learning process. Findings are based on the answers of 200 faculty members aged between 25 and 75. Besides the demographic information which included if they have had any professional development program, the study entailed a checklist. Whether they needed information about distance education (teaching methods, measurement and evaluation, student relationships); face to face education; (teaching methods, active teaching techniques, critical thinking, classroom discussion, effective techniques for large and small classes, differentiation, classroom management); and general information (techniques to cope with stress, learning styles and strategies, syllabus design, to evaluate student learning, student centered learning, increase student motivation, teaching technologies) are among the items of the checklist. Results showed that the 97% of the respondents had never had a professional development program before. While measurement and evaluation were the areas that they felt they needed to be informed the most, classroom management was the least one. As a result, a professional development program for all faculty members was highly recommended to the institution.

Keywords: Differentiation, higher education institutions, professional development, student evaluation, teaching and learning

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1. Introduction

As improved instruction is accepted as one of the key factors for better higher education institutions (HEIs), and student success as a priority for high quality universities, faculty members have faced challenges and opportunities due to recent technological developments and the changing demographics of the student body (Davidson 2017; Sorcinelli 2007; Sorcinelli 2014). They often begin teaching based on their experiences as students in universities they attended (Mundy, Kupczynski, Ellis, & Salgado, 2012). It is highly probable that they have not taken a professional development course encompassing teaching methods, psychology of students, student evaluation, and/or classroom management. Because of this, students may be subjected to long and boring lectures or monologues, meaningless assignments, and unrelated exams. In the 21st century, higher education is transforming itself to meet the multiple demands that society has imposed on it (Brancato, 2003). Focusing on learning as well as teaching, widening the learning environment to a more global one, the

explosion in information technology, and a broader understanding of accountability for student learning are among the demands. To fulfill their professional and institutional missions, faculty are called to redefine themselves focusing more on professional development as teachers, which is one of the most important factors for enhancing the quality of higher education. Studies have found that personal satisfaction and improvement are among the most important motivations for choosing teaching as a career (Kızıltepe, 2015). With the motivation of teachers, improved instruction leads to better student learning, which in turn leads to the success of the HEIs (Ali, 2020). Moreover, if aligned with professional development activities, being self-determined and eager for continuous learning and development are also considered as a condition for expert performance in teaching in all fields (Ericsson, 2017; van de Wiel et al., 2004). Similarly, it is claimed that "Professional development for all elements of the academic role (including teaching and research) should be considered as an integral part of professional life" (King, 2019, p. 4).

1.1. Professional Development Needs of Faculty Members

The needs of the faculty for a professional development program can vary according to their characteristics, such as the HEI they work in, the class level they are teaching, the field of science, and their learning preferences. For instance, in a study after a needs analysis, it was found that the faculty needed a professional development program in teaching, research, technology use, organizational competencies, self-improvement and global competencies (Koç & İnce, 2015). Similarly, in another study, academic staff expressed that their most prominent need was teaching qualifications and technology use (Odabaşı, 2003). Along the same line, a training program with assessment and evaluation, efficient teaching and learning and material development modules was created for the faculty in another study (Soran, Akkoyunlu and Kavak, 2006). It was also claimed that faculties of technical education needed support in terms of professional development in areas such as article writing, conducting research, use of foreign languages, and technology (Erişen et al., 2009). There are some studies which included people other than full-time faculty such as adjunct faculty and research assistants. It has been claimed that the fabric of higher education has changed in recent years with the increase of part-time, nontenured, adjunct faculty who also need professional development programs to catch up with full-time faculty (Diegel, 2013). Research assistants, too, need support in terms of wider domains such as professional, institutional, educational, and self-improvement support (Kabakçı and Odabaşı, 2008). Due to the changing nature of learning and teaching in universities, it is thought that mathematical sciences teaching staff, too, should receive some training in learning and teaching (Wood et al., 2011).

1.2. Faculty Development Programs

Lifelong learning to improve the quality of teaching in higher education has emerged as one of the foremost challenges to university teachers (Zeng, 2020). By 2010 most HEIs either provided an introductory professional development program or had their faculty undergo such programs elsewhere (Gosling, 2010). Peer review of teaching has increasingly been used in the United States and the United Kingdom for higher education teachers' professional development, promotion, contract renewal, tenure, and/or merit pay to maintain quality in HEIs (Ackerman, et al., 2009; Smith, 2012). Among the domains used, peer review of teaching involves the domain of teaching practices as well (Chism, 2007; McMahon et al., 2007). Some institutions have included intervention programs to enhance teaching and learning in their classes. One program, called the Trifecta of Student Engagement, engages with the course content, instructors and their peers (Leslie, 2020). Similarly, a blended learning course (a combination of online and face-to-face (FtF) activities for classroom instruction to enhance

teaching and learning) is another intervention that can be counted as a remedy (Evans et al., 2020). The results indicate that the blended course succeeded not only in offering additional learning experience but also offered directions for faculty to apply what they had learned to teaching their own students. Blended learning is seen more and more in professional development training, and is seen as another educational tool in the delivery of instructional services (Donnelly, 2010; Hillard, 2015). There are other studies that suggest blended learning as the best for teaching and learning in universities (Adams Becker, et al., 2017). Reflective practice (reflection), too, is seen as a useful model for the faculty to develop their teaching (Saroyan & Trigwell, 2015; Moon, 2001). Tronto's political ethics of care (Tronto, 2008), which identifies five integrated moral elements of care – attentiveness, responsibility, competence, responsiveness and trust, is also used as a normative framework to evaluate a model of teaching and learning professional development (Bozalek et al., 2014).

2. Methods

The aim of the study is to investigate the needs of faculty members to improve the teaching and learning process in their classes. The study used a non-experimental survey research design combining qualitative and quantitative data to ask faculty members about their needs for the teaching and learning process.

2.1. Sample

This study took place in a newly established private university in İstanbul. It consisted of 200 faculty members (research assistants, assistant professors, associate professors, and full professors) aged between 25 and 75, working within the eight schools of the university, including School of Pharmacy; School of Economics, Administrative and Social Sciences; School of Arts and Sciences; School of Fine Arts, Design and Architecture; School of Engineering; School of Health Sciences; and School of Medicine.

2.2. The Instrument and the Procedure

This study used a checklist consisting of three parts. The first part informed all participants about the purpose, confidentiality, and voluntary nature of the study. It told all participants the aim of the study, which required honest answers for participants to make a substantial contribution to the study. The second part consisted of demographic questions such as age, department, and whether they had been exposed to a teacher training program before. In the third part, a 19-item checklist about the needs of the faculty for better teaching and learning was prepared.

This checklist contained items compiled from the results of a pilot study in which nine randomly chosen faculty members at the same university participated. One open-ended question was asked, namely "What do you need to improve teaching and learning in your classes?" Their needs were compiled in eight categories with content analysis method such as, (1) Active/current teaching techniques in large/small classes in distance and FtF education, (2) measurement and evaluation in distance and FtF education, (3) enhancing student motivation, (4) idea sharing meetings, (5) personal support in teaching-learning, (6) academic writing courses, (7) statistics training for academic staff for their research, (8) experience sharing of competent teachers. Content analysis is a widely used method, which "consists of screening a document and counting the frequency of occurrence of words or concepts, which can then be grouped according to similarity in meaning" (Kızıltepe, 2015, p. 146). This process involves the coding of data and "the construction of categories that capture relevant characteristics of the document's content" (Merriam, 1998, p. 160).

As a result of the pilot study, a checklist of 19 items was established, which were grouped under three headings: (1) needs involving teaching and learning in distance education, (2) needs involving teaching and learning in FtF education (in the classroom), (3) general teaching and learning needs. The participants were given two choices for each item on the checklist: (1) I need to be informed about this; (2) I do not need to be informed about this.

After the university granted official permission to conduct the research, a collective mail containing the study with the three parts (the explanation of the study, the demographic part and the checklist) was sent to all the faculty members, 460 in total. The checklists were filled in by 200 faculty members and were returned within an average of three to four days. As a last step, the response frequency rates were calculated.

3. Results and Discussion

This study conducted in a private university revealed the needs of the faculty for better teaching and learning. First of all, demographic results show that 97% of the respondents had never had a teacher training program before, and all of them agreed that professional training was essential for the faculty in all HEIs.

An overall examination of the categories of the research question indicates that measurement and evaluation in distance education; differentiated education and teaching techniques for large classes in FtF education; and evaluation of student success were the top priorities for the faculty for their professional development. The findings were examined in three categories (see Table 1).

In the category of the needs involving teaching and learning in distance education, the percentage ranges from 62% to 28.5% with the highest in measurement and evaluation (62%). The next in the list is teacher-student relationships but with nearly half as much in percentage (33.5%). The lowest one is teaching methods (28.5%).

In the category of the needs involving teaching and learning in FtF education, the percentage ranges from 54% to 17.5% with the highest in differentiated education (54%). The next one is the teaching techniques for large classes (51%), and the lowest one is the teaching methods (17.5%).

In the category of general needs involving teaching and learning, the percentage ranges from 71.5% to 18% with the highest in evaluation in student success (71.5%), and the lowest one is syllabus design (18%). Frequencies were calculated using the Statistical Package for Social Sciences (SPSS) to analyze the data.

Table 1.
Needs of the faculty involving teaching and learning

Category	Item	I need to be informed about it %
Distance education	Measurement and evaluation	62.5
	Teacher-student relationships	33.5
	Teaching methods	28.5
Face-to-face education	Differentiated education	54.0
	Teaching techniques for large classes	51.5
	Cooperative/active learning	38.5
	Teaching critical thinking	36.0
	Classroom discussion	30.0
	Techniques for small classes	27.5
	Classroom management	25.5
	Teaching methods	17.5

	Evaluation of student success	71.5
	Learning styles and strategies	44.0
	Establishing a student-centered environment	41.0
General	Increasing student motivation	40.5
	Using technology in class	38.5
	Academic writing	35,5
	Coping with stress	28.0
	Syllabus design	18.0

Note. N = 200

3.1. Measurement and Evaluation in Distance Education and Evaluation of Student Success in General

As the results of this study, it is seen that measurement and evaluation in distance education, and evaluation of student success in general are among the top needs of the faculty. It has been claimed that assessment is at the heart of formal higher education (Gikandi et al., 2011). It is important in teaching and learning processes because it offers learners to show they have developed their abilities (Bransford, Brown, & Cocking, 2000), and get support for better learning through feedback from their teachers. It is not easy to develop meaningful learning environments in online settings unless well-structures strategies are provided (Akyol et al., 2009). Along the same line, in online and FtF learning environments, effective integration of formative assessment is needed for effective learning (Sorensen & Takle, 2005). It is of utmost importance that the faculty receive support from their universities for effective measurement and evaluation courses in their professional development programs to support their students' success.

3.2. Teacher-Student Relationships

Teacher-student relationships was the second top domain that the faculty in this study felt they needed to be informed about. Teaching involves effective interpersonal communication skills to better learning. In FtF classes, the verbal and nonverbal communication behaviors and the cooperative method (Birgili et al., 2016) increase social and psychological connection between the teachers and their students. In online classes teacher-student relationships may be quite challenging because apart from facial expressions, online interactions limit nonverbal communication such as eye contact, gestures, posture, and body language. As remedies, researchers recommend the use of humor and emotions (Küçük, 2009), and addressing students by name while teaching. Other recommendations to enhance learning in online classes include "tailoring course design to their students' needs, life experiences, and interests; help learners construct knowledge rather than transmit knowledge; foster peer-to-peer and peer-to-instructor interaction; and create authentic learning environments and assessments" (Allen, 2016, p. 28).

3.3. Differentiated Education

Differentiated education was another domain that the faculty in this study felt they needed to be informed about. For improved education climates; "better pedagogies and more inclusive education models are vital solutions" (Adams Becker et al., 2017, p. 6); thus designing online courses as well as FtF courses covering all students is of utmost importance. Students in a single learning environment possibly come from different backgrounds, possess different abilities and interests, and of course, have different knowledge levels. Since each and every student is valuable in a classroom and deserves maximum care and attention from their teachers, the instructional design of the course covering all these different characteristics of the students is vitally important. Therefore, the instructional design and the organization of a

course should include the curriculum materials, the teaching methods, the group and individual activities, and an efficient assessment technique that is valid for all students (Anderson, 2001).

3.4. Teaching Techniques for Large Classes in FtF Education

This study found large classes to be yet another domain where the faculty felt they needed help. Large classes in HEIs have become a subject of concern as there is a widespread belief that high number of students in a class decreases learning quality (Cuseo, 2007). This issue of large classes has been named as massification to describe the rapid increase in student enrolment in HEIs. It is believed to challenge the quality of the learning environment causing low student performance (Hornsby & Osman, 2014). In large classes, students are thought to have less chance to express themselves, interact with each other, and develop social relationships. As enrollment grows, greater numbers of students attend classes but with less resources, and teachers tend to reinforce didactic teaching styles. However, research has shown that teacher expertise is a more significant determinant of student learning than class size (Mulryan-Kyne, 2010). Expert teachers can apply teaching and assessment strategies to enhance student learning in large classes. Curriculum design, instruction techniques, assessment, approaches, and methods for varying students and different styles of learning can be applied in the design of the courses. One study, for instance, suggested that "moderately-active learning methods such as the jigsaw method are more effective than the lecture, lecture/discussion, and case study methods … more extreme active learning methods such as team projects completed outside of class may not be as effective as moderately-active or passive teaching methods" (Carpenter, 2006, p. 18).

4. Conclusion

This study concluded by recommending that a teaching and learning center be established in the university. As Check et al. (2020, p. 4) claim

> A teaching and learning center coordinates and facilitates programming to improve faculty teaching. A center provides training, mentoring, and networking to faculty and staff, performing a vital aspect of the colleges' mission to support teachers, enhance learning, and build community. All members of the community benefit from this work, especially the students through enhanced learning developed as a result of improved pedagogical practices.

Besides teaching and learning programs, this center will design and apply orientation programs for the new faculty at the beginning of the school years; will organize conferences and seminars; will schedule tea/coffee breaks to exchange ideas about teaching practices; will invite professionals to give speeches; and will provide faculty with classroom materials. The teaching and learning program organized is made up of 40 hours for all the faculty without any exception in different times of the week and months of the year so that they would have no difficulty in attending its activities. The program specifically included these domains: (1) Academics as a profession; (2) Traditional learning theories; (3) Adult learning theories; (4) Critical thinking and Socratic questioning; (5) Young-adult student characteristics; (6) Questioning and answering methods, using feedback; (7) Student motivation; (8) Teacher motivation; (9) Individual differences, learning styles and strategies; (10) Course and syllabus design; (11) Teaching methods; (12) Classroom management; (13) Measurement and evaluation; (14) Using technology in education; and (15) Digital literacy.

Some domains of this program such as measurement and evaluation, active learning, digital literacy, are offered as separate courses from time to time. Teacher motivation is actively

supported because it is a significant condition for effective learning both in online and FtF environments (Kızıltepe, 2014, 2019). In response to faculty demands, FtF gatherings to discuss their teaching practices also take place. Finally, heeding the results of this study, the university introduced a writing center apart from the teaching and learning center to support the faculty with their publications and students with their assignments.

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