

The Mentoring in Professional Development of University Teachers

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Abstract—Mentoring is provided by professionals with a higher level of experience and competence as part of the professional development of a university faculty. This paper explores the characteristics of the mentoring provided by those teachers participating in the development of an active methodology program run at the University of the Basque Country: to examine and to analyze mentors' performance with the aim of providing empirical evidence regarding its value as a lifelong learning strategy for teaching staff. A total of 183 teachers were trained during the first three programs. The analysis method uses a coding technique and is based on flexible, systematic guidelines for gathering and analyzing qualitative data. The results have confirmed the conception of mentoring as a methodological innovation in higher education. In short, university teachers in general assessed the mentoring they received positively, considering it to be a valid, useful strategy in their professional development. They highlighted the methodological expertise of their mentor and underscored how they monitored the learning process of the active method and provided guidance and advice when necessary. Finally, they also drew attention to traits such as availability, personal commitment and flexibility in. However, a minority critique is pointed to some aspects of the performance of some mentors.

Keywords—Higher education, Mentoring, Professional development, University teachers

I. INTRODUCTION

FOR decades, European universities have established initial and lifelong training services or platforms for their faculty members and have introduced and developed different training and organizational strategies designed to ensure greater educational quality [1].

One of the faculty development strategies is mentoring, understood as the process of guiding, accompanying and supporting that is established between a mentor and his or her mentee, in which the acknowledged experience of the former and the inexperience of the latter in the specific field of knowledge in question become the driving force behind a relationship that aims to foster and improve certain skills and capacities in a climate of trust and communication [2].

Numerous programs have been run and an increasing amount of research has been carried out in relation to mentoring since the 1980s. In specific practice, according to [3], the theory and development of research into mentoring has focused much attention on trying to "capture" the personal

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and psychosocial characteristics of the people involved and to identify the most effective teaching strategies. In this sense, some authors [4] have compiled a catalogue of mentor behaviors, in accordance with an inductive process of grouping together the different actions contemplated by the mentoring. From a functional perspective, many studies have tried to define the figure of the mentor by listing the functions that he or she should perform. Thus, it is often said that mentors are people who accompany, guide, facilitate, explain, mediate, praise and correct their more inexperienced colleagues [5].

In the field of research, while some authors [6] highlight the need to describe the processes of and identify the challenges posed by effective mentoring practices, there is a marked absence of research exploring mentoring practices themselves and examining the style and strategies used, the difficulties experienced, the doubts and uncertainties that arise, the conflicts generated and the needs detected. Given this situation, this present study analyzes mentoring practice in the professional development of university teachers.

The University of the Basque Country is currently running the ERAGIN active methodology program for the lifelong learning of its faculty members, viewing mentoring as a key part of the training process. The ERAGIN program forms part of the university's lifelong learning initiative. It aims to enable teachers to redesign part of their subject syllabus in accordance with active methodologies and to put them into practice, thus creating the ideal conditions for fostering this kind of learning. One of the program's key areas is mentoring by faculty members who are experts in active methodologies. Mentors are responsible for fostering the development of each of the proposed methodologies and for helping and advising participants during the aforementioned process. A number of questions arose within this framework that delimit and give form to our piece of research. What exactly are mentoring practices? What characterizes mentoring practices? What skills do mentor's need? How do teachers view, conceive and experience mentoring? Do different mentors have different styles? Can some specific profiles be identified? What skills, values, attitudes and strategies are most highly valued by teachers in their mentors? What needs have been identified in current mentoring practice? What is missing?

This study aims to answer some of these questions, specifically exploring how teachers-mentees perceive the work carried out by their mentors.

II. METHOD

In accordance with the established aims and the qualitative

approach [7], a questionnaire was compiled with open-ended questions that provide subjects with the opportunity to make sense out of their own experiences and professional development. The data analysis method used was the constant comparative method proposed by Glaser and Strauss [8]. In short, it is a qualitative research method that uses a set of analysis procedures that together explain (theoretically) a specific phenomenon.

A. Aims

The aim was to explore what university faculty think about the mentoring they received during a specific training process within the sphere of teaching innovation. Specifically the aim was to examine mentors' performance and actions (competences, strategies, characteristics, etc.) and to analyze how differences in this sense are assessed in accordance with different variables (promotion, active methodology, etc.).

B. Sample Group

A total of 183 teachers, faculty members with a minimum of 10 years' university teaching experience in different specialist areas and fields of knowledge, were trained during the first three programs. The questionnaire was completed by 85 teachers: 37 from the problem-based learning method, 28 from project-based learning and 20 from the case method.

C. Instrument

Information was gathered using the MENTORING questionnaire, which consisted of four open-ended and five close-ended questions. This study only takes into the account the information received in response to the open-ended questions.

D. Procedure

An email was sent to participating teachers asking them to complete the online questionnaire. Glaser and Strauss [8] distinguish four stages for the treatment of the conceptual categories generated: 1. The first stage is data gathering and comparison. 2. In the second stage the categories and their properties are integrated and compared with the literature until the point of saturation. 3. During the third stage the theory is outlined, and 4. During the fourth stage the theory is written.

III. RESULTS

The method used for the data analysis generated and inductively built a series of theoretical constructs. In specific terms, the categories of the study were grouped according to theme into three large meta-categories: Characteristics, Functions and Assessments.

First we compiled category trees based on teachers' perceptions, in accordance with the specific active methodology chosen. The first category is Mentoring, which is precisely the object of study here. At a second level, an inductive and comparative analysis was conducted of the textual units, with three categories being identified: *Characteristics* (Availability, Methodological expertise, Flexibility, Personal commitment), *Functions* (Monitoring, Guidance, Motivation, Help), *Assessments* (Useful and

valuable, Effective, Satisfactory). In each of these categories a third level was established, at which 11 other categories were inductively constructed.

The category trees emerging from each methodology are outlined below.

A. Problem-Based Learning (PBL)

Table I outlines the structure of the categories stemming from the analysis conducted, with the number of textual units in which they are reflected (83 in total) being given in brackets, along with a textual quote for each category by way of example.

When describing their mentors, teachers participating in the problem-based learning initiative highlighted their availability, methodological expertise and collaborative attitude. They also stated that (generally) their mentors monitored the learning process from start to finish, guiding, motivating and offering help when required, and assessed the whole process as useful, valuable and very effective. In short, they described themselves as satisfied with the mentoring provided in the lifelong learning program. However, some teachers were more critical, stating that they hardly felt motivated at all, received little prompting to engage in individual and group reflection and felt that input from non-scientific fields was missing.

B. Project-Based Learning (PjBL)

The Table II shows the categories stemming from the analysis of the responses received from those teachers involved in the project-based learning method, along with the number of textual units (79 in total) in which they were reflected and a textual quote by way of example. In this case mentors were characterized by their willingness and availability to provide help and support, as well as by their methodological expertise. However, another characteristic highlighted by participants was their personal commitment to and engagement in their work and their flexibility.

In 30 textual units respondents described the mentoring process as a relationship involving monitoring, guidance, motivation and help throughout the whole training program, that they considered to be useful and valuable, effective, and therefore, satisfactory. These teachers coincide with their counterparts in the problem-based learning method in both their description of their mentors' functions and their assessment of their performance and attributes.

C. Case Method (CM)

Finally, Table III outlines the results of the questionnaires completed by those teachers involved in the case method module. The table outlines the category tree stemming from the analysis carried out, along with the number of textual units (50 in total), in which each category was reflected and a series of textual quotes by way of example.

TABLE I
CATEGORY TREE FOR PROBLEM-BASED LEARNING

Categories (num. of textual units)		Example
M E N T O R I N G	Characteristics (28)	Availability(16) <i>He/she was always accessible and available. What I liked least was that mentoring was carried out on different campuses, since this considerably hampered the work flow.</i>
		Methodological expertise (10) <i>I was impressed by the mentor's ability to put everything developed in the PBL methodology into practice.</i>
	Functions (28)	Collaboration (2) <i>He/she was always ready to help.</i>
		Monitoring (6) <i>Monitoring was ongoing, from start to finish.</i>
		Guidance (10) <i>My experience was satisfactory because he/she knew how to guide me and suggest ideas or appropriate corrections.</i>
		Motivation (6) <i>Very good ability to motivate. Collaborative and discrete. I hardly felt motivated at all in my relationship with my mentor.</i>
	Assessments (27)	Help (6) <i>The help provided by my mentor during both the design and the implementation phase was key. He/she did nothing to foster individual or group reflection.</i>
		Useful and valuable (17) <i>I would assess the mentoring process very highly. I felt that what was lacking were experiences from non-scientific fields.</i>
		Effective (4) <i>Very effective. He/she always resolved any doubts I had in an extremely positive fashion.</i>
		Satisfactory (6) <i>In my case, both the mentoring process and the methodology used were highly satisfactory.</i>

TABLE II
CATEGORY TREE FOR PROJECT-BASED LEARNING

Categories (num. of textual units)		Example
M E N T O R I N G	Characteristics (30)	Availability (15) <i>He/she was always available for help and support.</i>
		Methodological expertise (10) <i>Very competent. Has extremely good resources for providing help and guidance.</i>
		Personal commitment (3) <i>I thought the mentoring was extremely good, probably due to the personal engagement and commitment of the mentor.</i>
	Functions (30)	Flexibility (2) <i>At first I thought he/she was too flexible and felt I needed more detailed instruction during each step. Now I believe flexibility is essential, since my mentor knows the subject and can intuitively identify the options available in each situation.</i>
		Monitoring (2) <i>This is a key part of the mentor's job, monitoring all phases as a guide and coach.</i>
		Guidance (21) <i>Good capacity for guidance and for suggesting alternatives. He/she really helps us get to grips with active methods.</i>
		Motivation (5) <i>Creates synergies with the people he/she advises.</i>
	Assessments (19)	Help (2) <i>The help I received from my mentor was vital during the project.</i>
		Useful and valuable (10) <i>Mentoring is the key to the whole process.</i>
		Effective (4) <i>Extremely effective, with a fast response time to any demand or request.</i>
Satisfactory (5) <i>I feel very fortunate to have had him/her as a mentor. Top marks for both attitude and aptitude.</i>		

TABLE III
CATEGORY TREE FOR CASE METHOD LEARNING

Categories (num. of textual units)		Example
M E N T O R I N G	Characteristics (14)	Availability (10) <i>I would like to highlight once again his/her availability, willingness to help and interest in his/her work. Initially, communication was very scarce.</i>
		Personal commitment (4) <i>I believe that my mentor was exemplary, both due to his/her attitude and aptitude and as a result of his/her commitment and conviction.</i>
	Functions (14)	Monitoring (4) <i>He/she wasn't even interested in seeing what I did with the worked-up case. He/she was entirely at my disposal to clarify any doubts, tell me how to proceed, encourage me to hand in the documents and help me solve any minor implementation problems, etc. I believe he/she could have monitored the process more closely.</i>
		Guidance (5) <i>Constant attention and dedication, always providing advice and observations to help me improve.</i>
		Help (5) <i>The help provided by the mentors throughout the whole process is one of the strongest points of the program.</i>
	Assessments (22)	Useful and valuable (12) <i>Contradictions between one mentor and the next implementation phase. Both the mentoring and the methodology itself were perfect. I believe the process could be monitored more closely, the implementation could be visualized better and more resources could be provided.</i>
		Effective (4) <i>The mentors participated actively and efficiently.</i>
		Satisfactory (6) <i>I am very satisfied with the aptitude and attitude of both my mentors.</i>

This group of university teachers also highlighted their mentors' availability and personal commitment, and underscored functions such as monitoring, guidance and the provision of help during the different stages of the lifelong learning process, assessing the mentoring as useful, valuable, effective and satisfactory. However, in this method criticism

was leveled at the mentoring process by three teachers, with complaints focusing on availability, help and mentor's performance. In short, these three teachers believe that the mentoring process could be improved by providing closer monitoring, more consistent guidance and advice and more resources and ideas.

D. General Overview: Global Category Tree

Finally, Table IV outlines the category structure that emerged from all the categories of all three active methodologies. A number of categories arose that are common to all methodologies (**shown in bold**): the characteristics availability, the functions help, monitoring and guidance and the assessments useful and valuable, effective and satisfactory. Those common to both PBL and PjBL (*shown in italics*) were: the characteristics methodological expertise, flexibility and personal commitment, and the function motivation.

And finally, collaboration (shown in standard font) was a characteristic reflected only in relation to PBL mentoring.

TABLE IV
JOINT CATEGORY TREE

MENTORING	Characteristics	Availability
		<i>Methodological expertise</i>
		<i>Flexibility</i>
		<i>Personal commitment</i>
		Collaboration
	Functions	Monitoring
		Guidance
		Help
		<i>Motivation</i>
	Assessments	Useful and valuable
		Effective
		Satisfactory

IV. DISCUSSION

The aim of this study was to explore how teachers participating in a lifelong learning program within the field of active learning methods perceived and assessed their mentors.

A conceptual approach to mentoring can be deduced from the qualitative analysis of the results: personalized guidance and monitoring, and motivation and help in the training received in the field of methodological innovation at a university level [1], [10].

Mentors were perceived as being available and willing to help, as having a high level of methodological expertise in the specific methodology in question, and as being collaborative and flexible with a high degree of personal commitment. This perception is consistent with the theory of mentoring as part of professional development programs in universities [9], [10]. Some Authors [11] found that mentees had received support, motivation and trust, as well as teaching strategies, educational knowledge and the chance to learn by debating and exchanging ideas, thinking about their practice, feedback and constructive criticism, all of which strengthened their commitment to their chosen profession.

The teachers in our study appreciated the positive effects of mentoring, acknowledging that it lived up to their expectations and helped them design and effectively implement an active methodology. They therefore considered this training strategy to be useful and valuable, as well as effective and satisfactory. As several authors affirm, feedback from the mentor is vital [6]-[12].

In our study, mentors' availability and willingness to help is the characteristic most often underscored and appreciated by teachers in general, although some express a certain degree of dissatisfaction regarding these aspects. This dissatisfaction is most evident among teachers involved in the case method learning module, who felt these elements were lacking in their mentors. Reference [13] underscore that during the learning process the mentor must dedicate time, effort and knowledge in order to ensure that their mentee broadens their perspectives, enriches their way of thinking and realizes their full potential, both as a person and as a professional.

Another (albeit minor) criticism leveled by the teachers in our study focused on mentors' availability, capacity to motivate and ability to foster reflection and discussion, as well as on the validity of some of the advice provided by some mentors within the project-based learning and case method learning programs. There can be no doubt that this negative assessment shows that mentoring has its faults and requires supervision in order to ensure quality, as indeed other authors have pointed out previously [14], [15].

The differences in teachers' assessments in accordance with the chosen methodology refer mainly to personal traits that emerged during their interaction with their mentors, as other similar studies confirm [16]. In this case the influence of the personality of the person performing a specific task can clearly be seen.

Mentoring is, above all, about establishing a relationship of help and support; a mentor is someone who has already gone through the same process and is now willing to use the experience gained to help others. It is this experience that enables the mentor to correctly interpret the situations encountered by the mentee and provide useful guidance. The more experienced teacher helps the mentee forge links between theoretical knowledge and the practice knowledge that is constructed individually from experience and practice; they help their mentee to uncover the basic pillars underpinning their practical teaching activities and foster their ability to act in a reflexive, autonomous manner. These aspects have a major impact on the construction of the teacher's professional identity [2], as well as on the prestige and social acknowledgement enjoyed by the teaching profession itself. Teaching constitutes a first-order element in the mentoring relationship. Disciplinary and pedagogical knowledge are considered essential qualities in a mentor. This assessment is a starting point for improving mentors' performance through training and supervision, particularly in relation to the strategies activated during the mentoring task.

The study has some limitations which should be taken into account. Firstly, although the sample group is large enough for a qualitative research study, all subjects were participants in the first three programs of a specific training initiative carried out at the same university, the University of the Basque Country, with only 30 mentors. Therefore, although these results are valid, rigorous and well-founded and provide an insight into a specific situation in a specific context, they cannot be extrapolated to other lifelong learning strategies involving university faculty. This opens up a wide range of

research possibilities. Firstly, future research should aim to compare the results found here with those provided by subsequent programs within the same lifelong learning initiative. And secondly, the training areas for future mentors need be established to ensure more effective aid and guidance during the professional development of both university teachers and researchers.

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