

ACADEMIC DEVELOPMENT ENGINEERING: ANALYZING FACULTY PERSPECTIVES AND EDUCATIONAL NEEDS

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Abstract- Understanding higher education teachers' views on teacher training is crucial of importance in analyzing their professional development needs. Teachers are key players in the educational process, and their perspective offers invaluable insight into the quality of teaching and the effectiveness of pedagogical methods. By knowing their opinions, concerns and suggestions, educational institutions can design training programs that truly meet the challenges encountered in the field. In short, listening carefully to teachers' points of view is an essential foundation for developing relevant and effective teacher training programs to meet the real needs of higher education. So, while the implementation of any teacher training plan in university pedagogy requires the identification of training needs, it is first necessary to know the perception of teachers as the target audience for such training in university pedagogy. With this in mind, this article examines the perceptions and needs of teachers at Higher School of Teachers in Casablanca in terms of pedagogical training. The study reveals that teachers express a strong desire to improve their pedagogical skills in order to enrich their teaching methods at university. Based on an exploratory survey focused on 40 teachers, the research showed a strong interest in teacher training among participants, expressing their interest in taking part in such an action, and highlighting potential obstacles to teachers' previous participation in teacher training. Time constraints, due to high workloads, were identified as a major limitation.

Keywords: Teacher Training, University Pedagogy, Teaching in Higher Education, Teacher Perception.

1. INTRODUCTION

Teaching today is undeniably undergoing significant transformations [3], largely driven by changing social parameters, including the increasing diversity of the student body and the ubiquitous diffusion of new

technologies. As a result, the university has undergone profound change in recent decades, making the university teaching profession even more complex than in the past. In response to this evolution, significant changes are underway, particularly with regard to the primacy given to pedagogy and, more specifically, the redesign of training and support for university teachers. It should be noted that, in Morocco, the training of university teachers is not systematic. In other words, there are no pedagogical prerequisites when recruiting new teacher-researchers [4], and it is common to pursue a career without having access to any training or pedagogical supervision. This contrasts with certain professions, where pedagogical training is imperative. This flexibility has led to a diversity of backgrounds and approaches within Moroccan higher education institutions, with some teachers possessing solid pedagogical skills, while others are developing their skills as teachers. As a result, teacher training remains more of an option than an institutional requirement.

This initial phase is largely explained by the fact that most teachers have been trained in their disciplinary field, but have not received specific preparation in teaching as a distinct skill [10]. This finding raises the central question we address here: "How do teachers at Higher School of Teachers in Casablanca perceive teacher training and what are their views on its importance, quality, and associated challenges in the context of higher education in Morocco, where such training remains optional despite ongoing developments in education and societal expectations?"

In recent years, the issue of university teacher training has gained prominence at conferences and events dedicated to university pedagogy. Through a descriptive study based on a Questionnaire distributed to 40 teachers at Higher School of Teachers in Casablanca, we examine whether the members of our sample had undergone pedagogical training before starting their teaching careers, as well as their expectations and training needs.

The results show that the majority of teachers surveyed had benefited from teacher training, but that disparities exist in terms of the quality and perceived relevance of this training. Our study also highlights the constraints teachers face in their day-to-day practice. These include problems related to resources, work overload and time management. In addition, teachers express divergent views on the obligation to undergo pedagogical training, some seeing it as an essential means of improving the quality of teaching, while others perceive it as a bureaucratic constraint. Finally, the article examines the incentives and obstacles to more in depth pedagogical training for teachers. Motivations include improving teaching quality, student satisfaction and career advancement. However, obstacles include lack of time, administrative burdens and lack of institutional recognition.

2. RESEARCH CONTEXT

2.1. Teaching at University

Teaching at a university is a vocation that is both demanding and extremely rewarding. It's much more than simply imparting knowledge; it's an exceptional opportunity to guide and inspire the next generation of thinkers, researchers and leaders. University teachers play a central role in the intellectual and professional development of students, helping them to cultivate critical skills, explore new perspectives and prepare for real-world challenges [24]. This field is distinguished by the diversity of pedagogical approaches encouraged, the constant valuing of innovation, and the recognition that learning is a continuous process for both teachers and students. Teaching at the university requires deep disciplinary expertise, the ability to communicate effectively and an absolute commitment to educational excellence. Each class represents a unique opportunity to help shape tomorrow's world through education.

However, it is essential to understand that this task is not without its complexities, not least because of the increasingly diverse profiles and characteristics of new students. They present a wide range of skills, motivations and approaches to learning, which has led to a major evolution in the way university teachers approach their profession. Today, under the impetus of these factors, a new conception of the university teaching profession is emerging, encouraging an orientation towards diversified and dynamic pedagogical practices, often envisaged in a collaborative manner. Teachers are now called upon to be not only transmitters of knowledge, but also designers of stimulating learning situations, mentors and development facilitators. This evolution translates into a shift from a pedagogical logic centered on a content (where the student is passive) to a method of teaching focused on the learners [23].

2.2. University Pedagogy

In this alternative perspective, university pedagogy aims at a fundamental transformation of teaching, moving from a unidirectional approach to knowledge transmission to one that actively solicits the student's intelligence. This

new approach encourages students to actively participate in the construction of their own learning, to take initiative and to develop their autonomy. It should be noted that the history of university pedagogy is relatively recent, covering only three to four decades.

In this context, it has become imperative for university teachers to acquire pedagogical skills in addition to their disciplinary excellence [2]. One suggestion for fostering this transition to a more active pedagogy could be the introduction of mentoring programs, enabling the intergenerational transfer of pedagogical knowledge and know-how. Professionalization is seen as essential to ensure the qualification of educational actors, aligning their characteristics, missions and values with the imperatives of quality and the expectations of society. The pedagogical training of university teachers is based on fundamental principles such as simultaneity, continuous professional development, individualization, isomorphism, co-construction of knowledge, consideration of time constraints, anchoring in research and reflexivity.

2.3. University Teacher Training

The training of university teachers has become a key concern in the current context of diversifying student populations, evolving learning modalities and societal changes [9]. Traditionally, university professors have been hired on the basis of a doctorate and a track record of publications. However, this does not necessarily guarantee adequate teaching skills. Professors, especially beginners, often focus on transmitting content without considering students active learning [14].

The reality of the academic world highlights the gap between university teacher training and the pedagogical skills needed to manage a diverse classroom. It is essential to understand that effective teaching requires reflection, hard work and specific training. Beginning teachers often find themselves bewildered by the difference between their academic training and the skills required to teach successfully [8]. Currently, many university teachers train on the job, imitating more experienced colleagues or innovating their own teaching methods. However, these informal approaches are not always sufficient to meet students' needs.

Training in university pedagogy therefore becomes crucial. It enables teachers to acquire the skills needed to create effective learning environments, adapted to students' needs [13]. It also fosters pedagogical innovation and encourages teachers to adopt a learner-centered approach. In an ever-changing world, the ongoing training of university teachers is essential to deliver quality education, meet the diverse needs of students and contribute to the improvement of higher education.

2.4. Teacher Training in Morocco: The Current Situation

The Moroccan university is facing major new challenges that require adaptation to the international drive to improve the quality of higher education. One of the key aspects of this improvement [6] lies in identifying and

developing a set of specific skills for university teachers, in order to foster their professionalization. It is recognized that university teaching is a profession that can be learned, whether through experience in the field or through training courses. The aim of this learning process is to foster the acquisition and development of the skills needed to be a university teacher.

In recent years, however, the Moroccan university has been called into question with regard to its role in society. While its contribution to the promotion of science and research is indisputable, attention has increasingly focused on the pedagogical dimension of university teaching. In this context, Morocco has been the scene of deep thinking on the quality of teaching in general and university education in particular. Colloquia, study days, articles, TV debates and radio broadcasts, notably on pedagogical innovation in universities, are multiplying. These discussions highlight the crucial importance of teachers' willingness and ability to act effectively in the interests of students [15].

However, a fundamental question arises: what specific skills are required of Moroccan university teachers to guarantee a minimum level of professionalism in the performance of their duties? A first observation highlights the absence of a skills repository dedicated to the profession of university teacher in Morocco. It is essential to note that university teacher training in Morocco is neither widely institutionalized nor uniformly mandated. Unlike some regions where formal teacher training programs are required for future university teachers, the Moroccan system offers a degree of flexibility in terms of teacher training requirements. Thus, it is quite possible to make a career in university teaching in Morocco without having had access to structured pedagogical training (Training and educational support for new teachers, 2016). This lack of mandatory pedagogical training raises a significant challenge in terms of the quality of teaching delivered in Moroccan universities. Indeed, some teachers possess solid pedagogical skills, while others develop them through their teaching experience.

To enhance the quality of higher education in Morocco, several measures are recommended. Firstly, it is recommended that training programs in pedagogical engineering be set up, particularly for new teaching assistants. These programs should be institutionalized and made compulsory to ensure the coherence and effectiveness of teachers' pedagogical skills [5]. In addition, it is necessary to promote research into university pedagogy and to encourage the continuing professional development of teachers. In summary, higher education in Morocco is facing a major evolution in which the quality of university teaching has become a priority [21]. This calls for deep thinking on the skills of university teachers, the institutionalization of teacher training, and the promotion of pedagogical research to guarantee quality teaching in line with the aspirations of Moroccan society.

3. RESEARCH METHODOLOGY

3.1. Aim of the Study

The main objective of our study is to explore in depth the perceptions of teachers at Higher School of Teachers in Casablanca regarding teacher training in Moroccan higher education. We seek to understand their perception of the importance, quality and relevance of this training, as well as the challenges they face in their day-to-day teaching. In addition, we examine their motivations for further pedagogical training and the obstacles to this process. Ultimately, we aim to provide valuable information for improving higher education in Morocco by proposing relevant recommendations for the future of pedagogical training for university teachers at Higher School of Teachers in Casablanca.

3.2. The Study Protocol

In conducting this study and writing the article, a rigorous commitment to the ethics of scientific research was maintained at every stage of the process. First and foremost, informed consent was obtained from participants, guaranteeing their voluntariness and the confidentiality of their responses. The data collected was treated anonymously and confidentially, respecting the privacy of participating teachers. In addition, all sources and references used in the article were correctly cited, ensuring proper attribution of ideas and previous work. The results of the study were presented transparently and impartially, without bias or manipulation of the data. Finally, the contribution of all the researchers involved was fairly acknowledged. In short, this research was conducted in accordance with the highest ethical standards of scientific research, ensuring the integrity and credibility of the results presented in the article.

3.3. Study Sample

For this study, a Questionnaire was distributed to a sample of 40 teachers at Higher School of Teachers in Casablanca. We obtained a total of 34 valid responses, representing a response rate of 85%. This indicates a high level of participation among the school's teachers, reinforcing the reliability of our results. With a total of 68 teachers at Higher School of Teachers in Casablanca, our sample covers more than half the population, providing significantly representative data. In terms of statistical confidence, with a sample of this size and a high response rate, we can be confident in the accuracy of our findings with an estimated confidence level of 95%. The margin of error associated with our sample is estimated at less than 5%, reinforcing the robustness of our results and their applicability to the entire population of teachers at Higher School of Teachers in Casablanca.

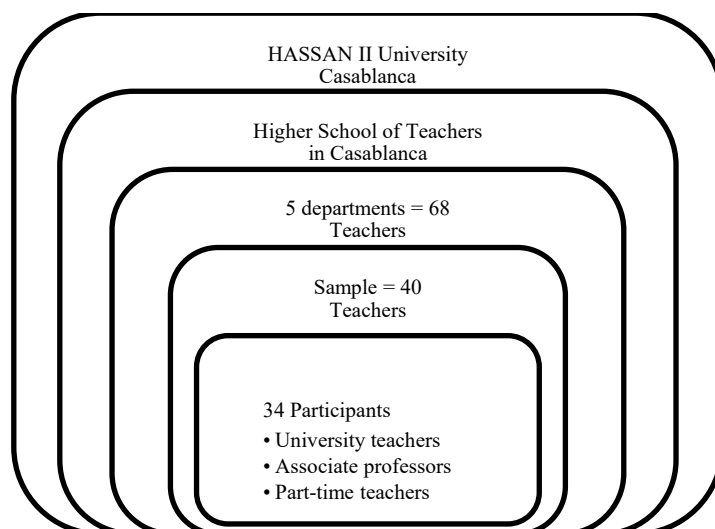


Figure 1. Presentation of study participants

3.4. Data Collection Tool

As part of this study to explore the perceptions of Higher School of Teachers in Casablanca teachers regarding teacher training, the choice of the Questionnaire as the main data collection instrument is justified by its versatility and effectiveness. Comprising 40 questions divided into 6 headings, the Questionnaire was designed to cover exhaustively the various aspects of teacher training in the context of higher education. This comprehensive approach makes it possible to gather detailed, nuanced data

on teachers' opinions, needs and perceived challenges. What's more, the Questionnaire offers standardized questions, guaranteeing uniformity in data collection, while enabling both quantitative and qualitative data to be obtained. In short, the Questionnaire proved to be an appropriate tool for gathering the rich and varied information needed for an in-depth analysis of teachers' perceptions of teacher training at Higher School of Teachers in Casablanca.

Table 1. Questionnaire topics

	Title	Description	Items
(1)	Basic information	Characteristics of participants (age, gender, grade, department of affiliation, level of experience, etc.)	6
(2)	Specific pedagogical training	Find out whether participants have received pedagogical training	6
(3)	Teaching methods and resources	To detect the teaching approaches and methods used by teachers	7
(4)	Use of ICT	Participants' perception of new technology in teaching	5
(5)	Expression of need for teacher training	Generate teachers' needs for teacher training	8
(6)	Motivation and resistance	Determining teachers' motivations and level of resistance to teacher training [18]	8

3.5. Questionnaire Validation

The validity of our Questionnaire was assessed by measuring the internal consistency of the questions in each category. To do this, we calculated Cronbach's alpha [7], which is a widely recognized measure of Questionnaire reliability. The results show that the internal consistency of questions in each category varies, but overall, they are encouraging. In particular, categories 3, 4 and 5 show Cronbach's alphas above 0.7, indicating acceptable internal consistency. Categories 1, 2 and 6 have Cronbach's alphas slightly below 0.7, but within an acceptable range. These results suggest that our Questionnaire is a valid tool for measuring Higher School of Teachers in Casablanca teachers' perceptions of teacher training. It should be noted that the variability of results between categories may reflect the diversity of topics addressed by the questions, which is common in multidimensional Questionnaires. Overall, these results reinforce the validity of our data collection instrument and confirm its ability to reliably measure the opinions and perceptions of university teachers.

3.6. Sample Design

The decision to include not only research teachers, but also associate and part-time teachers in our study of university teachers' perceptions of teacher training is justified by the need to represent a diverse range of perspectives within the university teaching body. Research, associate and part-time teachers play different roles and have different experiences in higher education. By including all three categories, our study becomes more inclusive, providing a complete and more nuanced picture of the views and needs related to teacher training at our institution. Sessional teachers, for example, may have unique perspectives due to their part-time commitment, while research teachers may bring a perspective based on their dual role as teacher and researcher. Ultimately, this broader approach helps ensure that the results of our study are more representative and useful for improving the quality of teacher training, taking into account the needs and expectations of the entire university teaching body.

3.7. Data Analysis

There are several fundamental reasons why a descriptive study was chosen for this article, which focuses on university teachers' perceptions of teacher training. Firstly, this methodology enables us to gather a detailed and comprehensive view of teachers' opinions and experiences, without seeking to establish cause-and-effect relationships. This aligns perfectly with the aim of the study, which is to gain an in-depth understanding of their views on teacher training. In addition, the use of Questionnaires offers a practical approach to collecting data from a large sample, ensuring adequate representativeness of university teachers. Finally, this methodology will enable responses to be quantified,

facilitating robust statistical analysis that could highlight significant trends in teachers' perceptions, which is essential for improving teacher training programs in response to their specific needs. In summary, a descriptive questionnaire based on study is the ideal method for effectively addressing the complexity of university teachers' perceptions of teacher training.

4. PRESENTATION AND DISCUSSION OF RESULTS

4.1. Survey Respondent Profiles

The profile of survey respondents are shown in Table 2.

Table 2. Profile of survey respondents

Participant characteristics						Total
Gender	Male			Female		100
	81.8			18.2		
Age	20-30	31-40	41-50	Over 50		100
	6.1	18.2	24.2	51.5		
Status	university teacher		associate professor	temporary teacher		100
	59.3		18.5	22.2		
Experience	Beginner (less than 2 years)		Intermediate (2-5 years)	Advanced (more than 5 years)		100
	61.3		25.8	12.9		
Department	Languages and Educational Sciences Department	Physics Chemistry Department	Mathematics and Computer Science Department	Physical Education Department	Biology and Geology Department	100
	31.3	34.4	9.4	15.6	9.3	

4.2. Trained and Untrained Teachers

The observation that can be made from the data presented in our study is as follows:

University teachers show significant interest and commitment to their professional development in pedagogy [19]. A considerable proportion of them (45.4%) have taken specific pedagogical training courses, and of these, a majority (68.8%) consider that these courses have had a very significant impact on their teaching practice. This trend suggests that teachers recognize the value of pedagogical training, and are willing to invest time and effort in improving their teaching.

- Yes, before I start teaching
- Yes, after I started teaching
- No, I haven't had any specific pedagogical training

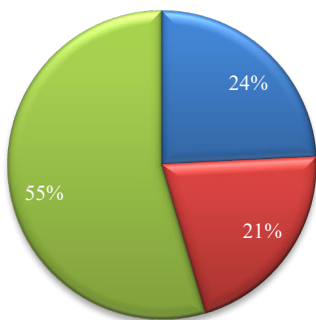


Figure 2. Trained and untrained teachers

- Very significant: the training courses have a significant positive impact on my teaching practice.
- Moderate, I was able to apply some of the notions learned during the training sessions to my teaching practice.
- Limited, the training courses did not have a significant impact on my teaching practice.

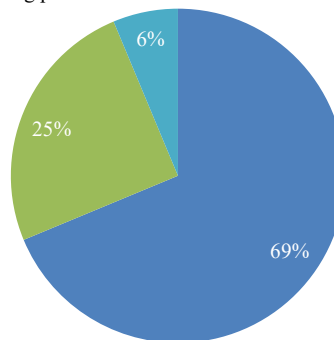


Figure 3. Impact of teacher training

What's more, the diversity of the types of teacher training programs in which teachers participated (workshops, seminars, conferences, online training) reflects a desire to diversify approaches to learning and skills acquisition. It also indicates that higher education institutions offer a diverse range of teacher training opportunities to meet teachers' individual needs and preferences.

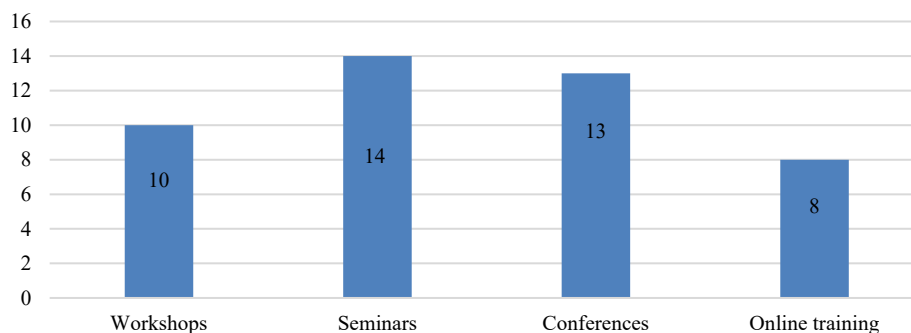


Figure 4. Types of training programs

However, it is important to note that despite this commitment, a minority of teachers (6.3%) felt that the training courses had only a limited impact on their teaching practice. This underlines the need for ongoing monitoring and evaluation of the effectiveness of teacher training programs to ensure that they are optimally meeting teachers' expectations and needs. In summary, the finding is that university teachers are inclined to participate in a variety of teacher training courses and recognize their value. However, there are still variations in how these training courses are perceived, which underlines the importance of continually adapting training programs to better meet individual needs and the specific challenges of university teaching.

4.3. Constraints Faced by Teachers in Higher Education

Student performance assessment (15): Student assessment is crucial for measuring understanding and progress. Teachers need to devise fair and effective assessment methods, and this can be demanding in terms of time and effort. Developing effective teaching materials (13): Teachers need to create relevant and engaging teaching resources to support student learning. This can include the preparation of presentations, handouts, exercises, assignments, etc., according to pedagogical objectives.

Managing differences in student levels and learning styles (12): Students may have different skill levels and learning styles. Teachers need to adapt their teaching to accommodate these differences, which can be a significant constraint. Classroom management and student engagement (11): This constraint refers to teachers' ability to maintain an effective classroom environment while encouraging active student engagement. This may involve managing disruptive behavior, creating motivating activities, and promoting student participation.

Use of digital technologies and tools (8): Integrating technology into teaching can be a constraint due to the need to master digital tools, create online content, and ensure that students have adequate access to these resources. Balance between individual attention and group management (5): Teachers must juggle between individual attention to students' needs [16] and managing the group as a whole. Striking a balance can be a challenge, as each student may have different needs.

Coordination with the administration (1): Coordination with the institution's administration can represent a constraint in terms of program management, compliance with institutional policies, and communication with education officials. Each of these constraints can influence the teaching practice of university teachers and requires special attention to maintain quality teaching and a positive learning experience for students [23].

4.4. Use of ICT

The results concerning the use of ICT (Information and communication technologies) in university teaching reveal several significant trends:

- Use of ICT: The majority of teachers (21 out of 32) indicate that they regularly use technologies in their teaching, either moderately (21) or intensively (10). This suggests that ICT is widely integrated into their teaching practices, albeit to varying degrees.
- Impact of ICT on learning: Teachers have varying opinions on the impact of ICT on student learning. The majority (16 out of 32) felt that ICT had a limited impact on student learning, while others considered the impact to be moderate (11) or highly significant and positive (5). These results reveal divergent perspectives on the effectiveness of ICT in improving learning.
- Difficulties linked to the use of ICT: Teachers identify several challenges linked to the use of ICT. The most frequently cited difficulties are related to limited or unstable access to technological infrastructure (12), the constant adaptation of technological tools (13), and the relevant integration of ICT into courses (10). A significant number of teachers also mentioned a lack of technical skills to use ICT effectively (10). However, only one teacher felt that the time needed to learn how to use the new technologies was a major problem.

These results underline the importance of ICT in university teaching, but they also reveal that its use can be associated with substantial challenges, including infrastructure problems, technical training needs and pedagogical integration difficulties. The differing views on the impact of ICT also suggest the need for further reflection on how these technologies are used and how they can be optimized to enhance student learning [11].

4.5. Teachers' Postulates of Need for Teacher Training

Discussion of the responses provided by teachers regarding their opinions and preferences for teacher training is essential to guide the development of training programs that meet their specific needs.

- Topics and skills desired in in-service training programs: It is notable that teachers express a strong interest in designing curricula (16 responses) and creating attractive and engaging teaching materials (22 responses) [1]. These responses underline the importance of developing skills for lesson planning and creating quality teaching materials.

Interest in using interactive teaching methods (20 responses) and integrating information and communication technologies (ICT) (18 responses) also reflects teachers' desire to make their teaching more interactive and technologically advanced.

- Main objective of teacher training: The majority of teachers (24 responses) are looking to improve their teaching skills, indicating a strong motivation to develop their teaching abilities. Other objectives, such as acquiring new teaching methods [20], building capacity to use educational technologies and developing effective assessment strategies, also show an interest in professional growth.

- Preferred types of training: Teachers expressed a strong preference for face-to-face practical workshops (25 responses) and expert lectures and presentations (18 responses). This preference suggests an appreciation of face-to-face interaction and external expertise.

- Preference in terms of training duration: Most teachers seem to favor training spread over an extended period (17 responses), which may indicate a preference for progressive, ongoing learning. However, a significant number are also open to intensive training over a short period (6 responses).

- Preference for facilitators: The majority of teachers (22 responses) feel that both options - specialized external experts and in-house trainers - are acceptable. This shows an openness to different sources of expertise.

- Post-training follow-up or support: Teachers show an interest in follow-up and group reflection (13 responses), as well as in online resources and support for ongoing learning (13 responses), underlining the value of collaborative learning and access to long-term resources.

In summary, these responses indicate a strong commitment by teachers to their professional development [22] and their desire to acquire new skills to improve their teaching. Those responsible for teacher training can use this information to design programs that specifically address teachers' needs and preferences, thereby promoting their success and improving the learning experience for students.

4.6. Trained Teachers vs Untrained Teachers: Perceptions

The table compares the responses of trained and untrained teachers on several questions related to their perception of teacher training, access to resources, use of technology and willingness to participate in research or development projects related to university teacher training.

Perception of the effectiveness of pedagogical training: Trained teachers seem to have a slight edge in their perception of the effectiveness of existing pedagogical training in meeting their needs. On the first question, 13 trained teachers found the training effective, compared with 15 untrained teachers. On the second question, 10 trained teachers feel that the training courses are effective, while 11 untrained teachers share this opinion. This slight difference could indicate that training has a positive impact on the perceived effectiveness of teacher training courses.

Access to pedagogical resources and professional development workshops: Trained teachers seem to have slightly less access to pedagogical resources and professional development workshops within their institution. Nine trained teachers have access to these resources compared to 12 untrained teachers. This may indicate that training does not necessarily guarantee better access to teaching resources.

Regular use of technology: On this question, trained and untrained teachers have similar responses, with 14 trained and 16 untrained teachers reporting regular use of technology in their teaching. It therefore seems that training is not a determining factor in technology use. Willingness to participate in research or development projects related to teacher training: Here, we observe that more untrained teachers (18) express a willingness to participate in such projects than trained teachers (12). This may indicate a greater interest on the part of untrained teachers in getting involved in research or development projects linked to teacher training.

In summary, trained teachers seem to have a slightly more positive perception of the effectiveness of teacher training, but they have slightly less favorable access to teaching resources. Regular use of technology is similar between the two groups. Finally, untrained teachers show a greater interest in participating in research or development projects related to teacher training. These results suggest subtle differences in perceptions and behaviors between trained and untrained teachers, underscoring the importance of taking these nuances into account when planning training and professional development.

4.7. Observation: Divergent Responses from Teachers in the Same School

The divergence of responses regarding access to educational resources within the same school may be due to several factors:

- Individual knowledge and perception: Teachers may have different knowledge and perceptions of what is considered an "educational resource". Some may think of textbooks and course materials, while others may consider workshops, e-learning courses or databases to be educational resources. This divergence in definition may explain the differences in responses.

- Actual accessibility: Even within the same school, accessibility to learning resources can vary according to department, program or budget availability. Some departments or teachers may have more resources at their disposal than others, which may explain the divergent responses.

- **Internal communication:** Information on available teaching resources may not be properly communicated to all teachers. Some teachers may not be aware of all the resources available, which may lead to a negative response, even if these resources do exist.
- **Personal experience:** Personal experience plays an important role. Some teachers may have actively sought out and used teaching resources, while others may have had no need to do so, or may not have sought out these resources at all.
- **Perceived usefulness:** Even if the resources are available, some teachers may not consider them useful to their teaching, which may lead them to respond negatively.

To resolve this discrepancy in responses, it may be useful to conduct more in-depth interviews or surveys to

understand the reasons behind these contradictory answers. This would make it possible to identify teachers' specific needs in terms of teaching resources, and to work on improving internal communication and access to resources within the school.

4.8. Classifying Teachers' Training Needs

In the training needs pyramid (Figure 5), we have classified the needs expressed by teachers according to their priority, based on the number of responses attributed to each theme. This visual representation aims to highlight the areas of training most in demand by teachers, reflecting their most pressing concerns. At the base of the pyramid, we find the most frequently mentioned needs, while at the top are the less frequent but nonetheless significant needs.

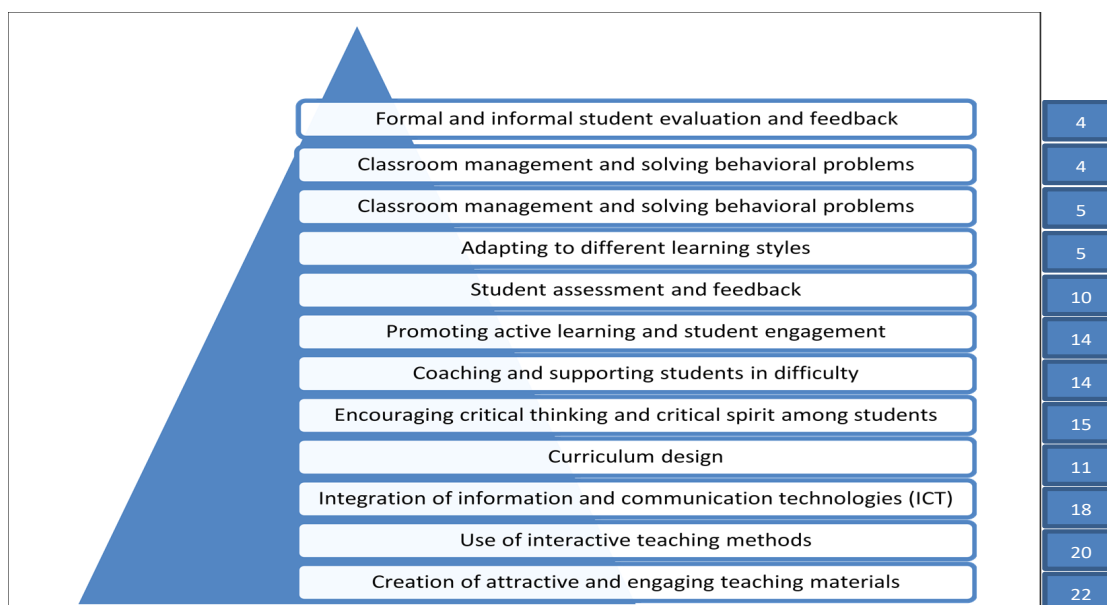


Figure 5. Training needs pyramid

5. CONCLUSION AND PROSPECTS

In conclusion, this study has highlighted several crucial elements concerning the pedagogical training of university teachers. Firstly, it revealed that the majority of teachers express a keen interest in pedagogical training, recognizing its potential to improve their teaching skills and their ability to effectively engage students. However, concerns were raised about the relevance of such training to the specific needs of their areas of expertise [12].

In terms of training methods, teachers clearly expressed a preference for practical, interactive approaches, such as small-group workshops and pedagogical brainstorming sessions. They also emphasize the importance of practicing the skills acquired in their own classrooms for better retention and application.

However, there are significant barriers to participation in pedagogical training, including time constraints related to their teaching and research responsibilities, as well as concerns about the lack of institutional recognition for their commitment to pedagogical development. Clearly, meeting the demand for teacher training among university teachers is essential [17].

It is necessary to design flexible training programs that take into account the time constraints facing teachers. In addition, better communication and dissemination of information about training opportunities within academic institutions is imperative to encourage participation.

However, it is essential to recognize that teacher training should not be seen as an end in itself, but rather as a means of professional development and professional identity for university teachers. This requires institutions to value this pedagogical commitment. In sum, this study highlights the crucial importance of teacher training for higher education, but also the challenges that need to be faced to make it effective and relevant. It argues for an integrated and sustained approach to teacher training, tailored to the specific needs of teachers, in order to enhance the learning experience.

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