

## **Developing Professional Competence among University Teachers in Balochistan**

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### **Abstract**

Building professional competence of teachers is fundamental to achieve goal of quality education. In this connection, a widespread research has been carried out to formulate methods and parameters to increase the competence of a teacher to deliver to his students. Current study is an attempt to find out various factors which influence professional competence of the university teachers. The study has been carried out using quantitative techniques of research and through survey, the study finds out that apart from knowledge enhancement of the university professors, their communication skills and attitude towards knowledge delivery requires to be improved in order to achieve required competence of the university professors.

**Keywords:** Profession, Competence, Teacher Development, University Teachers, Balochistan

## **Introduction**

Faculty members at universities are the most significant components of an educational structure, and their loss of knowledge and abilities has a direct impact on the educational system's overall performance. Given that university professors make up the majority of a country's educational system, the system's success and dynamism, as well as the achievement of educational goals, demand a growth in the level and capabilities of these university professors, who's strengthening and development is the heart and soul of the sector, and particularly of university faculty education. As a result, an educational system must devote special attention to the upkeep and upgrading of its university instructors and must avoid neglecting those (Dolev & Leshem, 2017). Per another research, enhancing a teacher's capacity entails a set of protracted tasks and practices aimed at addressing the shortcomings in their work. It also includes the process, which can take the form of teaching and planned measures, as well as formal and informal, and flexible forms, among other elements. Personal goals (high compensation packages for university professors, long-term job contentment, elevated work safety in terms of autonomy, improved efficiency in performing a given assignment, efforts to improve esprit de corps, self-confidence, and professional growth), and benefits to the organization (increased sense of togetherness and employee engagement) seem to be just a several of the variables that impact the importance of adopting and implementation of a program of teacher development (Napal Fraile, 2018). As a result of these considerations, TD was identified as a major educational goal in a paper on fundamental change. Despite the fact that such programs for higher education instructors have been available for a long time, there seems to be ample indication, documentation and proof that they are not being executed and administered as planned (Ghanizadeh et al., 2017). In contrast, while the professional competence approach taken by university professors takes into account the knowledge, tendencies, and skills of university professors, and The conception of a student 's physiological, psychological, societal, and theological health is still in its early stages, TD achieved as part of one's own professional skills appears to be highly desirable (Vare et al, 2019).

## **Research Question**

- What are the factors important in creating professional competence among University teachers?

## **Literature Review**

### **Competency Model**

The competency-based model (CBM), also known as the performance-based model, first appeared in the area of teacher education in the mid-20th century. Many years later, research was conducted to examine the manufacturing processes in order to identify the skills that are most directly linked to the learning outcomes of students, i.e., the competencies of instructors (Mahdzir et al, 2021). It was mentioned by another study that the primary aim of the CBM is that "observable behavioral criteria may be used to serve as a foundation for teaching novices.

One of the most significant characteristics of current educational innovation has proved to be the use of CBTE. It is thought that competency-based teacher training would benefit university academics who are not doing effectively in their given responsibilities (Barton, Bruce & Schreiber, 2018). Also possible is the creation of career preparation programs for university teachers with the use of this resource. The method that was selected emphasized the roles and responsibilities that were required in order to correctly evaluate their degree of competence, knowledge, and ability, among other things. The implication of this is that instructors may be assessed in accordance with particular criteria that are meant to distinguish excellent teachers (Luo & Zhao, 2021).

Competence is described as a conscious and trainable collection of skills and abilities that enable a person to be a successful teacher in a given situation. Competition, according to Steiner et al. (2008), is defined as follows: "Competition is a model of thinking, feeling, acting, or speaking; that enables an individual to be successful in a certain profession or position." According to research, previous evidence of successful competition is one of the most reliable predictors of future performance in a particular position in a given industry. Skills may be learned, but they are most successful when they are utilized to choose individuals who are already well-suited for the position. Another study argues that in order to become competent, it is essential to mobilize one's knowledge base and use it in actual settings (Walsh et al, 2018).

Numerous research, conferences, and educational organizations have, nevertheless, focused their attention on the issue of what qualities and talents successful university instructors should possess. To put it another way, the particular talents that excellent university professors are known to possess may be used as a model for teaching and assessing newcomers. Another study points out that the development of teacher skills is becoming more important for educational achievement (Setlur et al, 2021).

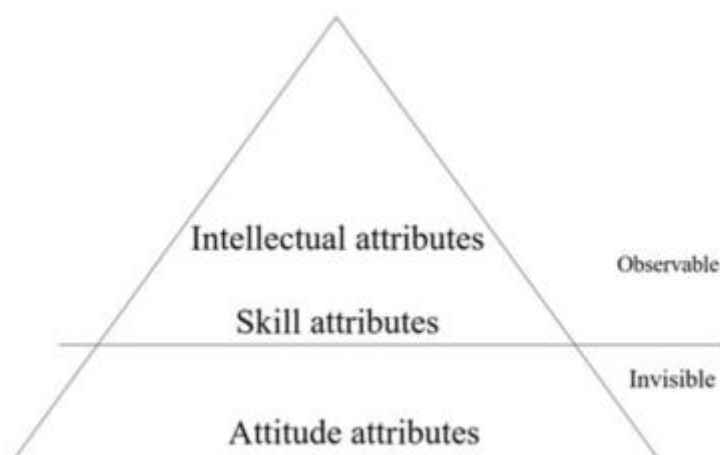
There are a variety of factors that contribute to determining effective teaching abilities. This is owing to the fact that techniques and objectives of teacher education are always changing throughout the globe. Another problem is defining precisely what university professors should consider in their teaching in order to become excellent university professors. A third issue is the influence of psychology and other fields on teacher education. According to some studies, attempting to put into words the fundamental characteristics of a competent teacher is a tough job (Amato & Pajo, 2021).

This research aims to create and verify a model that specifies the skills that should be utilized in the training of university instructors who are accredited by teaching faculties, as well as the skills that should be employed in the development of excellent university teachers. It has been shown in studies that questionnaires may be used to evaluate the capabilities of instructors in certain circumstances; for example, in the classroom, to assess and improve students' abilities. Individual studies and international conferences or symposia were evaluated by researchers who were particularly interested in the competency of university teachers. When the analyses were completed, it was revealed what labels or categories were given to the idea; it changed in appearance but stayed the same in substance and meaning throughout. The researchers came to the conclusion that effective teaching abilities concentrate on three major aspects, namely

academic, professional, and personal, notwithstanding the variations in titles and specific features. The description and names of the various dimensions are explored in more depth in the Literature part of this document.

As shown in Figure 1, competence is a comprehensive notion that encompasses both general and particular characteristics (see Figure 1), as well as extrapolation from performance and visible activity to unobservable traits. According to some research, improving teaching professorial abilities and cultivating good attitudes about teaching in the classroom may help increase the percentage of full professor involvement in the classroom (Hao, Gao & Hao, 2019). Leadership and management skills, evidence-based practical skills, disciplinary skills, ethical skills, teaching skills, collaborative skills, internationalization skills, and professional development skills were all identified as important teaching skills. The notion of competence of university math instructors, according to some academics, encompasses both the features of the subject matter and the common elements of the teachers' knowledge, abilities, and views about the topic. For the purposes of this research, the uniqueness of the discipline for entrepreneurial university professors is related to their entrepreneurial competence, while the similarities are related to their teaching ability. According to the literature, there are two different definitions of competence: trait theory and behavior theory (Zhang, 2021).

Figure 1: Competency Model



(Source: Huang et al, 2020)

Trust, risk-taking behavior, internal control choices, the desire for success, and innovation, to name a few characteristics of trait theory, are all examples. Hayat and Amer (2013) discovered that the characteristics of creativity, proactivity and risk-taking showed by a teacher in Finland and Pakistan may explain students' views of their teachers. According to Hamed et al. (2016), there is a pressing need to reform the university curriculum in the United Arab Emirates in order to improve student confidence, control, and risk-taking. Specifically, Winkler (2014) discovered that Business Education (EE) is a dynamic area of study that takes into consideration the triadic interaction of personal, behavioral, and environmental variables in the process of learning about business. Because of this, it includes many aspects of behavioral competence, such as the ability to identify and grab opportunities, integrates resources, offer

ideas, execute innovations, create entrepreneurial teams, acts, and manage, among other things. According to their findings, information and communication technologies (ICTs) may be utilized to enhance the efficacy of conventional teaching techniques and the development of EE skills (Grosch, 2017).

Universities and university professors, for example, are being studied by an increasing number of academics who are using competition theory to enhance skills in education for sustainable development and create a competency-based framework of conduct.

### **Structure of Teacher Competences**

Using a trait theory approach, the European Union (EU) defined the basic concept "entrepreneurship teacher" and highlighted many traits, including the requirement to enjoy one's job" and "have an enthusiastic and cheerful spirit. The two most essential talents of an entrepreneur are the ability to identify and create new possibilities. The authors of a 2007 paper said that entrepreneurship is the struggle for the reintegration of resources (Atmaca, 2017). Another study developed a method for assessing behavioral business skills and education, and they hypothesized that sub-competencies for business skills may be broken down into 21 distinct behavioral indicators, which they called behavioral indicators. EU researchers have identified three characteristics of entrepreneurial university professors: first, they know how to listen and can identify good ideas in group discussions; second, they are proactive and skilled at selling their own ideas to others; and third, they instill a sense of excitement in their students about the process of creation, growth, and learning (Alikulov & Azizov, 2021).

As a result, the talents of university professors refer to the total characteristics of attitude, knowledge, and skills that are needed at colleges and universities in order to carry out their respective job functions.

There is a plethora of research on the effect of entrepreneurship on students available online. Earlier this year, Shojaei et al (2019) conducted an investigation on the entrepreneurial goals of scientific and engineering students in China. Another study investigated the factors that influence students' decisions to establish their own companies while attending institutions in the United Arab Emirates (Huang et al, 2020). Yi (2017) investigated the connection between internship quality, business convenience, business feasibility, and business intent among engineering students at research institutions in China, as well as the relationship between internship quality, business convenience, and business intent. Yin proposes that knowledge management be used to build fundamental abilities that will last for a lifetime. The variables that influence the abilities of university professors are primarily divided into two categories: internal factors and external ones. In recent years, scientists have advocated for the training of academics with a focus on innovation and EE at Chinese institutions, which they believe may be accomplished via institutional changes and other means. In addition, they recommended strategies including the introduction of the EE discipline, the provision of vocational training, the creation of full-time apprenticeships, the establishment of an incentive mechanism, the removal of barriers to system flow, and the development of a more robust business ecosystem.

### **Academic Competence**

The names and criteria of academic competency in different studies are often different. Following an inquiry, it is discovered that all of the terms have similar meanings and relate to skills that are comparable. So the evaluation of cognitive and general abilities, intellectual capabilities, and knowledge is the central focus of all academic skills investigations. Teacher scientific competency involves the understanding of ideas and generalizations as well as skills and knowledge in the teacher's area of specialty, as well as knowledge of research techniques that are used in this field. For university teachers, academic competency is regarded to be an essential component of their professional development. It takes into account the teacher's knowledge of the subject's topic as well as their cognitive and pedagogical understanding abilities. It is also believed that the ideas of research competence and lifelong learning are crucial to university teachers' ability to perform their academic duties effectively (Guzmán-Simón et al, 2017).

Within the framework of generic teaching skills, international congresses and symposia emphasize the importance of academic competence as well as academic settings in the classroom. A wide foundation of knowledge and comprehension of the instructional topic are stressed, according to these experts. On the basis of the teacher's answers to the questionnaire and indicators, which demonstrate the presence of certain patterns, academic competency may be determined (Reinke et al, 2018).

### **Professional Competence**

Among the elements of professional competency are planning strategies, instructional techniques, and implementation processes. Application of teaching and learning theories in a variety of learning settings, as well as boosting students' desire to study, motivating them to work, and using a variety of learning materials that are appropriate for the student's social and psychological requirements. The concept of professional competence is often the focus of the majority of the study. It is often referred to by the same term with the same definition and skills, or it simply outlines the abilities that underpin professional competence, which include real classroom practice, in a standardized format (Kartini et al, 2020).

Various terms for technical competence include technical competence, communication and teaching competence, scientific competence, and teaching competence. Technical competence may be defined as follows: Teaching expertise is defined as real classroom teaching experience. This involves classroom management, understanding how to integrate technology into the classroom, developing and executing a curriculum, and supporting the student learning process in accordance with the course's learning objectives (Ramesh & Krishnan, 2020). It is the teacher's duty to engage students in professional learning, offer chances for students to gain professional knowledge, and provide them with a learning environment that is conducive to learning. On the basis of the answers provided by the instructor to the questionnaire's components, it is possible to determine their degree of professional competence. The components of the questionnaire are intended to act as indicators for currently applicable standards (Prihidayanti, 2019).

### **Personal Competence**

Personal competency refers to the characteristics of a teacher's personality. The Humanism-Based Teacher Training program was the inspiration for this idea (HBTE). At HBTE, the student receives much more attention than the teacher. HBTE is classified under the umbrella term of humanistic psychology, which was first proposed by Abraham Maslow in 1968. The fundamental aspect of humanistic psychology is built on dignity, with its primary goal being geared toward personal development as its central objective. Korthagen (2004, p. 79) came to the conclusion that "... it was critical for the advancement of teacher education that this movement focused emphasis on the teacher." Personal competence is comprised of the personal characteristics of a teacher, i.e. Personal competition is referred to by many various names in different contexts. It includes the characteristics that a competent university lecturer should have to provide his or her students. Personal competence is comprised of a person's values, attitudes, dispositions, and other personal impacts, among other things. A few of the specific personal skills differentiators that are critical to your success include knowledge of the student and educational institution, understanding of your own family, social connections, awareness of others, and the ability to build stronger relationships with members of the student and student community. It also entails assessing and monitoring all pupils, as well as behaving in a manner that is most conducive to their interests. Students need role models that are honest and ethical, and who have a solid grasp of how to apply information to their own development and progress. You should place a high emphasis on the assistance and participation of families, guardians, and parents in their children's education (Boiliu et al, 2021).

### **Technology & Contemporary Teaching Methods**

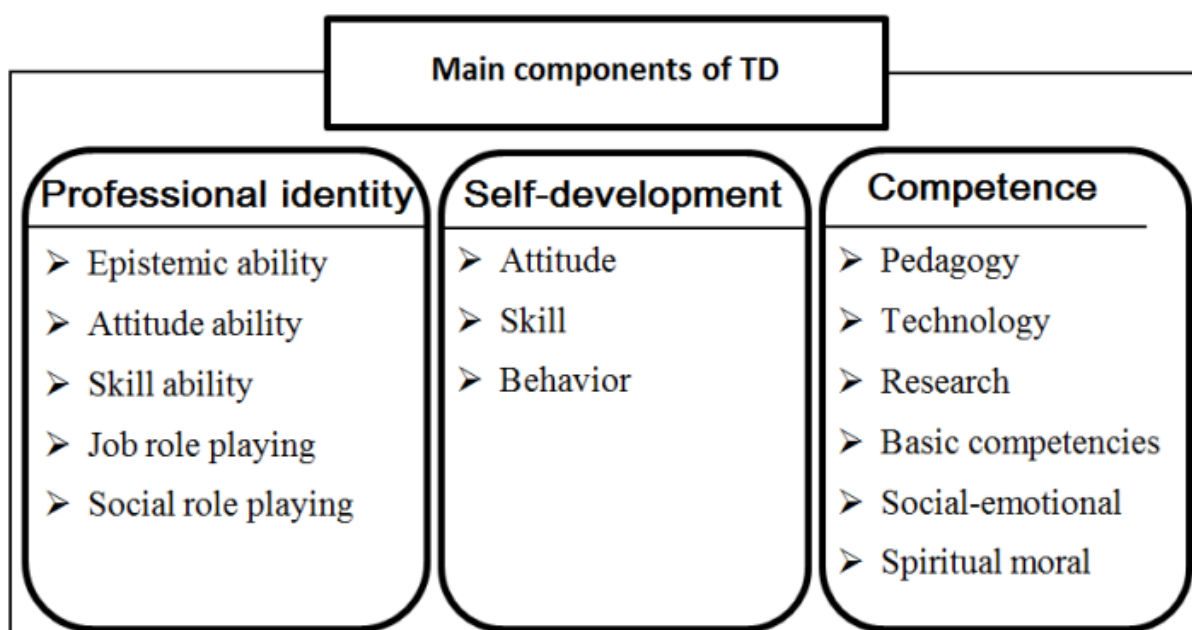
It is essential that both teachers and students have the appropriate tools and circumstances for effective teaching and learning when incorporating technology techniques into the classroom. For the purpose of training their pupils, college instructors use a variety of digital collaboration techniques. Using traditional teaching techniques with younger pupils who have grown up in the digital era is not an option for them. Education is essential in today's society, and research is being conducted all around the globe to ensure that university instructors get the best possible training (Turdieva, 2019).

The use of video conferencing, Internet instant messaging, and networking is becoming more popular in today's educational environment. Orthodox education systems are not always successful and have a detrimental influence on the learning of students, as research has shown. Because of this, while assessing all teachers training programs, it is essential to examine the most significant factors, which include the abilities and competencies of university instructors, their familiarity with technology, and their degree of competency. Specialized knowledge and abilities in the area Professional cooperation between instructors, teachers' supervisors, and general administrators at the university are required to solve the issues associated with evaluating teacher competencies. Subject matter specialists are always striving to enhance the quality of teaching and to strengthen the professional reputation of university academics in their respective fields of expertise (Spiteri & Rundgren, 2020).

Positive improvements in teacher training programs would not only guarantee high-quality education, but they would also enhance students' overall knowledge of the subject matter as well. Taking the initiative and introducing educational techniques that are effective in both urban and rural settings must be the responsibility of the government. Content-oriented education is becoming increasingly popular among university instructors, and this includes the teaching of multimedia, networks, and computers. Future university instructors will be able to examine case studies and select new teaching techniques to enhance their courses as a result of these educational trends.

### Conceptual Framework

Figure 2: Conceptual Framework



### Research Method

The current study is an example of applied research that uses a survey technique. The gathering of data and information was accomplished via a study of the literature, interviews with specialists, and standard and research questionnaires, among other methods. According to the findings of this research, the statistical population consists of all university teachers in Balochistan. In this study, the sample size was determined using a multistage proportional cluster sampling technique based on the small population of 94 individuals who participated. The first questionnaire in this research analyses the aspects of professional skills and teaching and learning (TD) in universities using a Likert scale (from very low to very high) (Ghanizadeh, 2015). The evaluation of teacher development (TD) was conducted in three phases at the institution, through the questionnaire, using the method of peer direct comparisons as well as the Analytical Network Process, using interviews (ANP). SPSS and Super Decisions were the software packages utilized in this research. The reliability of the questionnaire was also

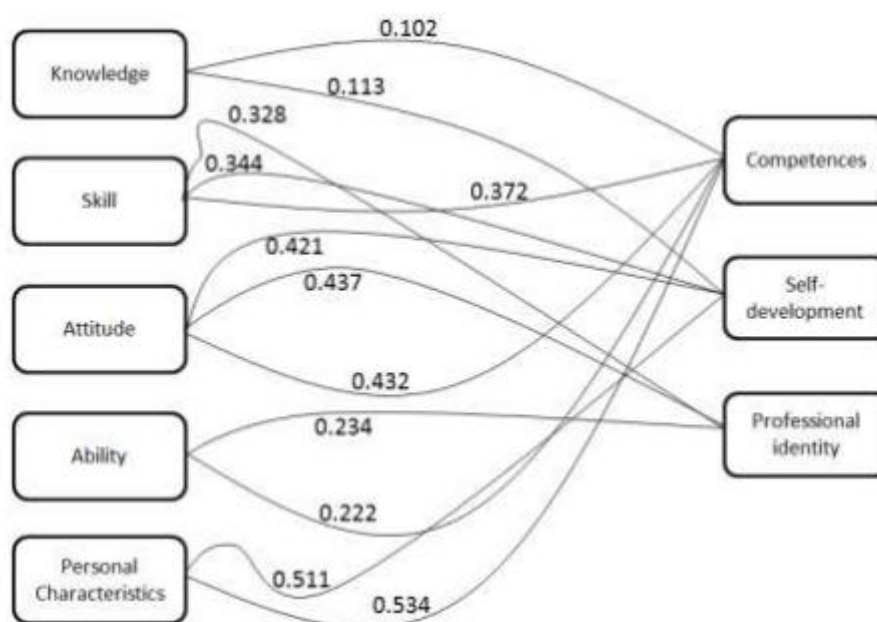


assessed in this research, with a Cronbach's alpha value of 0.80 for TD and 0.78 for university professors' professional qualifications being obtained.

### Findings and Discussion

The values of the sample members in terms of professional skills and TD at the university were calculated based on the information provided in the initial questionnaire, which was sent to them. Questionnaires were coded only for the purpose of this study and were not tagged with the professor's name so that the researchers' intention and dedication to using the data gathered could be assessed. After that, the method of network analysis was utilized to assess the importance of each factor in the growth of teachers at higher education institutions. The ANP method was then used to determine the weight of each component of the TD at the institution in order to arrive at a final result. The research began by doing a paired comparison between the individual aspects of TD, and then it moved on to a pairwise comparison between the various dimensions of professional abilities. Following the software's analysis of the findings acquired in the ANP supermatrix, the weights of each element of the TD were calculated by comparing the pairings of results found in the ANP supermatrix. A total of 0.267 points are assigned to each dimension, with the competence dimension receiving the most points (.267), the self-development dimension receiving the second-most points (.252), and the professional identity dimension receiving the third-most points (0.221). Following the recognition of the significance of the dimension of Teacher Development among the respondents, the connection between the teacher development dimensions at the university and the professional skills of the sample was investigated (Figure 2).

Figure 3: Correlation coefficients between professional competencies dimensions and TD



The knowledge and personality traits dimensions and personal development skills, as well as the capacity dimension and skills and professionalism, all have a substantial association with

TD at the university. According to the findings, all of the university's TD aspects have a substantial association. As shown in Figure 1, there is a connection between the dimensions of professional competences and each dimension of TD, as well as correlation coefficients for each of the factors. When considering both the correlation between the dimensions of professional capacity and each dimension, as well as the results obtained by weighing each dimension in higher education, it is possible to calculate, for each dimension of jurisdiction, the capacity to comply with a judgement of the TD using the following equation:

$$P_{xi} = \sum_{i=1}^5 (C_{xi} \times W_i)$$

The strength of each dimension of professional competence in TD among teachers at universities are represented by Pxi, and the correlation coefficient between each dimension of professional competence and the TD dimensions is represented by Cxi. The weight of the TD dimensions is represented by Wi.

Table 2 depicts the ability of each occupational skill dimension to attain a range of TDs as represented by a percentage. As can be seen in Table 3, the dimension “competence” is placed first with a coefficient of.465, the dimension “attitude” is listed second with a coefficient of.423, and the dimensions like “personality traits”, “knowledge”, and “skills” are listed third, fourth, and fifth in order of importance, respectively, with coefficients of.367,.310, and.244. Table 1: Correlation matrix of professional competencies and Teacher Development.

|                       |                         | Professional competencies dimensions |            |            |           |           |
|-----------------------|-------------------------|--------------------------------------|------------|------------|-----------|-----------|
|                       |                         | Personality traits                   | Attitude   | Skill      | Ability   | knowledge |
| Competences           | Correlation coefficient | 0.534 (*)                            | 0.432 (**) | 0.372 (*)  | 0.222 (*) | 0.102 (*) |
|                       | Sig.                    | 0.022                                | 0.003      | 0.023      | 0.084     | 0.034     |
|                       | N                       | 94                                   | 94         | 94         | 94        | 94        |
| Self-development      | Correlation coefficient | 0.511 (*)                            | 0.421 (**) | 0.344 (**) | 0.043     | 0.113 (*) |
|                       | Sig.                    | 0.031                                | 0.004      | 0.002      | 0.034     | 0.026     |
|                       | N                       | 94                                   | 94         | 94         | 94        | 94        |
| Professional identity | Correlation coefficient | 0.384                                | 0.437 (*)  | 0.328 (*)  | 0.234 (*) | 0.348     |
|                       | Sig.                    | 0.087                                | 0.014      | 0.025      | 0.037     | 0.094     |
|                       | N                       | 94                                   | 94         | 94         | 94        | 94        |

Table 2: Power amount of each professional competencies dimensions to achieve a TD set

| W <sub>i</sub>                                     | 0.267       | 0.252            | 0.211                 |                 |
|--|-------------|------------------|-----------------------|-----------------|
| TD dimensions Professional competencies dimensions | Competences | Self-development | Professional identity | P <sub>xi</sub> |
| Personality traits                                 | 0.534       | 0.511            | -                     | 0.367           |
| Attitude   | 0.432       | 0.421            | 0.437                 | 0.423           |
| Skill  | 0.372       | 0.344            | 0.328                 | 0.465           |
| Ability  | 0.222       | -                | 0.234                 | 0.244           |
| Knowledge  | 0.102       | 0.113            | -                     | 0.310           |

## Conclusion

Educating and training university teachers are one of the most significant methods to enhance the quality of public and nonprofit institutions today, and it is becoming more vital. Many researchers, including Mirsapasi (2017) and Ghanizadeh et al. (2017), came to the conclusion in their investigations that TD is necessary for the accomplishment of educational objectives. TD is influenced by a variety of factors, including professional qualifications. The purpose of this paper is to examine the current situation of TDs in universities within the context of their professional competencies and explain the power of each dimension of professional competencies to achieve a set of TD learning objectives.

The findings of the first phase of this research revealed that the dimensions "competence" and "attitudes" are more strongly associated with the TD than the dimensions "knowledge." Considering that these two dimensions of professional capability are associated with the vast majority of TD dimensions, it is reasonable to conclude that these two dimensions are more significant in TD among university instructors. This finding is consistent with the findings of the Ghanizadeh et al. research (2017).

The findings were also verified by the study of the development brought to the teaching staff of the universities, and it became clear that the TD is logically more affected by the dimensions "competence" and "attitudes" in professional competencies than the other dimensions.

This study was carried out in two phases: First, we computed the weight of each TD dimension using the ANP technique; and then, by multiplying each dimension's professional capacity and TD in the weight-performance ratio, we were able to calculate the efficiency and capacity of each dimension's professional capability in the TD by the product of multiplying each dimension's professional capacity and the TD in the weight-performance ratio. The findings of this phase, which corroborated the findings of the first phase, demonstrated that, in light of the current situation of universities in Balochistan, it is necessary to take into consideration the "skills" and "attitudes" of university teachers that have the greatest potential for development of university teachers. A route to excellence in TD in the framework of professional competence includes taking into consideration the local aspects of professional skills for guiding and counseling.

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