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JOB PERFORMANCE AS A PREDICTOR OF PROFESSIONAL COMPETENCIES ACQUIRED THROUGH THE PED@TIC PLATFORM AMONG NEWLY RECRUITED UNIVERSITY PROFESSORS (A FIELD STUDY ON A SAMPLE OF PROFESSORS AT THE UNIVERSITY OF OUARGLA)

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Abstract

The current study aimed to know the level of job performance of newly hired university professors, as well as to know the level of their professional competencies in light of training via the PED@TIC platform, in addition to revealing the possibility of predicting the professional competencies acquired via the PED@TIC platform through the job performance of the study sample members, as the descriptive correlational approach was relied upon. To achieve the study objectives, a questionnaire of the professional competencies of the university professor was constructed in light of training via the PED@TIC platform, and the questionnaire of job performance of the university professor by "Sghairi and Bouafia" (2020) was adopted. After confirming the validity of the two tools through their psychometric properties, they were applied to a sample consisting of (43) newly hired university professors at the University of Ouargla, March 2023 batch. The study reached the following results: The level of job performance and professional competencies acquired via the PED@TIC platform for newly hired university professors at the University of Ouargla is high. The quality standard and the time standard contribute to predicting the professional competencies acquired via the PED@TIC platform among the study sample members

Keywords: Professional competencies. Job performance. Newly hired university professors. Training via the PED @TIC platform.

I- Introduction:

The university is considered one of the most prominent educational institutions, playing a pivotal role in preparing human resources qualified both scientifically and professionally. It assumes a strategic role in preparing and training human resources capable of shouldering the nation's burdens, thereby enabling them to contribute to the comprehensive development of society. The university does not limit itself to the transmission of knowledge and the production of research that addresses developmental challenges; it also fosters students' intellectual, analytical, and creative skills by

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providing a research environment that contributes to knowledge production and problem-solving in society.

Thanks to its educational, research, and societal roles, the university is regarded as a key driver of economic and social development, and a main contributor to building the knowledge society. It also represents a space for disseminating human and civilizational values and reinforcing cultural identity while remaining open to global developments. As it has been stated: “The university in our contemporary era has become one of the essential components of the modern state. It is entrusted with the mission of advancing society towards progress by providing it with human resources across various disciplines. In addition, the role of the university has expanded to address the problems and challenges facing society, as well as to forecast and anticipate these challenges in the future and propose the necessary measures to deal with them” (Fellih, 2005, p.37).

In this context, the role of the university professor emerges as the main actor and cornerstone of the educational process, responsible for preparing generations and equipping them with knowledge and skills aligned with the requirements of development and the needs of the labor market. Furthermore, professors contribute actively to scientific research and knowledge production that reinforce the university’s position as a leading institution, making their role central in bridging academic knowledge with societal needs. Thus, the interactive relationship between professors and the university is manifested in their mutual reinforcement: the university provides an academic and research environment that fosters professors’ development, while professors, through their competence and expertise, enhance the level of students and scientific research as the essential outputs of the university.

This reality necessitates continuous efforts to recruit highly competent human resources capable of carrying out teaching duties and effectively training students. This stems from the conviction that the quality of education is closely tied to the competence of those who deliver it. In this regard, universities work to attract professors with distinguished academic and research qualifications that enable them to keep pace with pedagogical and technological developments. However, university policy does not stop at recruitment; it extends to investing in the development of professors’ abilities and skills through special training and qualification programs for newly recruited professors. The aim is “to develop their professional, technical, and behavioral skills in order to increase their efficiency and effectiveness in performing tasks and roles related to their current and future functions. Training is a means of individual advancement, human resource development, and a necessity for adapting to new technologies” (Pierre, 1994, p.48).

This orientation was reinforced by Decision No. 932 of July 28, 2016, which stipulates the organization of pedagogical support for newly recruited professors. In this context, the University of Frères Mentouri Constantine 1 assumed part of the responsibility for training through distance learning and the use of information technology in teaching, known as the PED@TIC platform. It is worth noting that this platform is among the modern training tools adopted by Algerian universities to qualify newly recruited professors, representing a strategic step toward enhancing and improving professional competence.

The platform provides integrated training that combines theoretical and practical aspects, helping new professors adapt to the requirements of higher education and gain a deeper understanding of their academic and pedagogical roles. It also offers a digital space rich in educational resources and interactive courses that enhance communication skills, pedagogical design, and the use of digital media. This makes it an effective tool for facilitating the integration of new professors into the

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university environment and preparing them for teaching situations by equipping them with professional competencies in the field of teaching and instruction. As Monald Medley argues, "competence in teaching and instruction refers to the knowledge, skills, and attitudes that enable the teacher to prepare for the teaching situation. It includes subject-specific knowledge, general knowledge such as that related to psychology or sociology, or any information that may play a role in determining the teacher's ability and effective performance" (Medley D. & Patricia R., 1980, pp.294–301).

The topic of professional competencies in teaching and instruction has attracted significant interest among researchers and scholars due to its strong impact on the educational process. For instance, Khadija Hayouani (2018) aimed to identify the professional competencies required of university professors. Her study followed a descriptive-analytical method and involved a sample of (39) professors at Larbi Ben M'hidi University, randomly selected. The results were presented across four main dimensions of university professors: pedagogical, research, community service, and administrative tasks. Similarly, Sorawi Sabah (2017) sought to identify the professional competencies possessed by Algerian university professors among those required by their position, from the perspective of their students, in the cognitive, performance, and affective domains. Using the descriptive method and a questionnaire administered to (7,763) students across Algerian universities (northeast, northwest, south), the study concluded that professors relatively possess cognitive and performance competencies but lack affective competencies.

Additionally, Al-Hakami (2004) aimed to develop a standard of professional competencies required of university professors and to identify the most preferred competencies from students' perspectives at Umm Al-Qura University, Taif branch. The results revealed six main professional competencies as perceived by students: personality, lecture preparation and delivery, human relations, activities and assessment, scientific mastery and professional development, and motivation and reinforcement methods. The study also found differences in students' preferences for professional competencies (Ath-Thaqafi, 2019, p.294).

It is worth highlighting that professional competencies acquired through the PED@TIC platform enable newly recruited professors to acquire certain skills that enhance their ability to perform their duties effectively. Thus, the competencies acquired through this platform represent cognitive and skill-based gains that can directly contribute to improving job performance, whether in terms of work quality, adaptability, or creativity in teaching practice. Job performance is defined as "the set of behaviors and actions undertaken by employees to accomplish specific tasks. Good performance is determined based on high morale, employee training, advanced technology, task design, organizational ability, and collective behavioral norms, with work being controlled both quantitatively and qualitatively" (Kassimi, 2011, p.10).

Job performance has received considerable attention in research as it is the key criterion for assessing the extent to which an institution achieves its goals through its human resources. Among such studies is that of Amina Toualga and Wasifa Krika, entitled The Role of Pedagogical Training for Newly Recruited Professors in Improving their Job Performance. Using the descriptive-analytical method and a questionnaire, the study involved (20) newly recruited professors at Jijel University. The results showed that face-to-face pedagogical training contributes to improving teaching and supervision skills, while training in ICT applications enhances professors' teaching abilities (Sabiha, 2024, pp.15–16).

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Similarly, Afaf Ahmed Al-Najjar studied Training Programs and Their Impact on the Performance of Employees in the Palestinian Ministry of Education. Using the descriptive-analytical method and a questionnaire administered to a stratified random sample of (368) employees, the study revealed a statistically significant positive correlation between respondents' perceptions of training programs in the Ministry of Education (Hebron governorate) and employees' job performance.

In the same vein, Sabiha Mariam (2024) examined The Impact of Training Newly Recruited University Professors on Job Performance. Using the descriptive-analytical method, a questionnaire, and observation, the study involved (60) newly recruited professors at Ziane Achour University of Djelfa. Results showed that training had a significant effect on improving job performance among new professors, encouraged their active participation in student assessment, enhanced their performance, and improved teaching practices (Sabiha, 2024).

It is observed that most of the available studies within the scope of this research have been conducted independently, focusing either on professors' professional competencies or on training programs and their impact on job performance. The significance of the present study lies in its attempt to link these two variables, making it— to the best of our knowledge— one of the first to do so. Its importance also stems from filling a noticeable research gap, as training via the PED@TIC platform for newly recruited professors may represent the cornerstone in building and developing their professional competencies, which in turn may act as the main driver of their job performance. This complementary relationship between training, competence, and performance may constitute the cornerstone of achieving quality in higher education. The training programs offered through the PED@TIC platform aim to provide new professors with modern knowledge, advanced teaching skills, scientific research techniques, and modern communication technologies. These competencies may include pedagogical, technological, and communication skills, among others, which could, in turn, positively affect their job performance.

Like their peers, the professors at Kasdi Merbah University – Ouargla are among the newly recruited professors who benefited from this training program, aiming to enhance their professional competencies, adapt to the requirements of university teaching, and consequently improve their job performance. From these facts and the previously mentioned points, the importance of the present study emerges, as it aims to determine the possibility of predicting the professional competencies acquired through the PED@TIC platform based on job performance among newly recruited professors at the University of Ouargla. This is addressed through the following research questions:

1. What is the level of job performance among newly recruited professors at the University of Ouargla?
2. What is the level of professional competencies acquired through the PED@TIC platform among newly recruited professors at the University of Ouargla?
3. Can the professional competencies acquired through the PED@TIC platform be statistically predicted based on job performance among newly recruited professors at the University of Ouargla?

II- Research Hypotheses:

2.1. The level of job performance among newly recruited professors at the University of Ouargla is high.

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2.2. The level of professional competencies acquired through the PED@TIC platform among newly recruited professors at the University of Ouargla is high.

2.3. The professional competencies acquired through the PED@TIC platform can be statistically predicted based on the dimensions of job performance among newly recruited professors at the University of Ouargla.

III- Significance of the Study:

The importance of the present study lies in the variables it addresses, as investing in this type of digital training through the PED@TIC platform contributes to improving the quality of university education and enhancing the professional competencies of university professors, particularly newly recruited ones. Such training may help them acquire the skills and abilities that enable them to perform their tasks more effectively, improve their job performance, and strengthen their adaptability to a constantly evolving educational environment based on technology and open knowledge.

The significance of the current study also stems from its focus on an important social category—newly recruited university professors—who represent one of the essential pillars in the development of the higher education system, especially in light of the rapid transformations in the university education environment. Through continuous training, professors can reinforce their professional competencies in pedagogical, technical, communicative, cognitive, and even ethical dimensions, enabling them to carry out their multiple roles with efficiency and effectiveness. In this context, the PED@TIC platform emerges as a modern and effective mechanism for providing integrated digital training for university professors, particularly those newly recruited, by enabling them to acquire knowledge and skills aligned with the requirements of contemporary higher education through targeted, interactive, and flexible training content.

This study may serve as an initial step, with its findings drawing researchers' attention to conduct further investigations into the shortcomings of training programs directed at newly recruited university professors. It may also alert training program developers working on the PED@TIC platform to design programs that further enhance the professional competencies of new professors and improve their job performance.

IV-Objectives of the Study:

The present study aims to:

4.1. Identify the level of job performance among newly recruited professors at the University of Ouargla.

4.2. Identify the level of professional competencies acquired through the PED@TIC platform among newly recruited professors at the University of Ouargla.

4.3. Determine the extent to which professional competencies acquired through the PED@TIC platform can be predicted based on the dimensions of job performance among newly recruited professors at the University of Ouargla.

V- Operational Definitions of the Study Variables:

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5.1. Operational Definition of Professional Competencies Acquired through the PED@TIC Platform:

Professional competence is defined as a composite skill, behavioral patterns, or knowledge that manifests in the teacher's behavior as a clear and specific perception of desired learning outcomes (Hall & Jones, 1976, p.67).

Operationally, it is defined as the score obtained by newly recruited professors at the University of Ouargla (March 2023 cohort) on the professional competencies questionnaire for newly recruited professors in the context of training via the PED@TIC platform, across its five dimensions (pedagogical competence – technical competence – cognitive competence – communication competence – ethical competence).

5.2. Operational Definition of Job Performance:

Performance refers to the degree of achievement and completion of tasks that constitute an individual's job, reflecting how the individual fulfills their job requirements. There is often confusion and overlap between performance and effort, as effort refers to the energy expended, while performance is measured based on the results achieved by the individual (Hassan, 2005, p.216).

Operationally, it is defined as the score obtained by newly recruited professors at the University of Ouargla (March 2023 cohort) on the job performance questionnaire developed by Sghairi Sarah and Bouafia Houda (2020), across its four dimensions (quality standard – quantity standard – time standard – procedures standard).

VI-Delimitations of the Study:

6.1. Spatial Delimitation: The study was confined to Kasdi Merbah University – Ouargla.

6.2. Human Delimitation: The study sample was limited to newly recruited university professors (March 2023 cohort).

6.3. Temporal Delimitation: The study was conducted during the 2023–2024 academic year.

VII- Field Study Procedures

7.1. Research Method:

The present study adopted the descriptive–correlational method, as it is the most suitable for achieving its objectives. This method is one of the most common and widely used in educational and psychological studies. It provides a systematic way to describe the subject under study through a sound scientific methodology in collecting, classifying, and tabulating data, followed by sufficient, precise, and in-depth analysis. It also includes interpreting the results and reaching generalizations about the research topic (Al-Mahmoudi, 2019, pp.45–46).

7.2. Study Population:

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The study population comprises all individuals, persons, or objects that constitute the subject of the problem (Dawqan, 2005, p.99). The population of this study consists of newly recruited university professors from the March 2023 cohort, estimated at (108) professors.

7.3. Research Instruments:

Based on the nature of the data to be collected and the research method adopted, the most appropriate tool for achieving the objectives of this study was determined to be the questionnaire. Accordingly, two instruments were used: a questionnaire designed to measure professional competencies acquired through the PED@TIC platform by newly recruited professors, and the job performance questionnaire developed by Sghairi Sarah and Bouafia Houda (2020). Both instruments are described below.

7.3.1. Professional_Competencies_Acquired_through_the_PED@TIC_Platform Questionnaire:

This questionnaire consists of (20) items distributed across five dimensions, described as follows:

1. **Pedagogical Competence:** measured by items 1, 2, 3, 4.
2. **Technical Competence:** measured by items 5, 6, 7, 8.
3. **Cognitive Competence:** measured by items 9, 10, 11, 12.
4. **Communication Competence:** measured by items 13, 14, 15, 16.
5. **Ethical Competence:** measured by items 17, 18, 19, 20.

- The scale is scored using a five-point Likert scale. Respondents answer items according to the following options: (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), with corresponding scores (5–4–3–2–1) in a single (positive) direction.

7.3.2. Job Performance Questionnaire:

The job performance questionnaire developed by Sghairi Sarah and Bouafia Houda (2020) consists of (12) items distributed across four dimensions:

1. **Quality Standard:** measured by items 1, 2, 3.
2. **Quantity Standard:** measured by items 4, 5, 6.
3. **Time Standard:** measured by items 7, 8, 9.
4. **Procedures Standard:** measured by items 10, 11, 12.

- The scale is scored using a five-point Likert scale. Respondents answer items according to the following options: (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), with corresponding scores (5–4–3–2–1) in a single (positive) direction.

7.4. Pilot Study

7.4.1. Pilot Study Sample:

The pilot study sample consisted of newly recruited university professors from the March 2023 cohort, estimated at (30) professors during the 2023/2024 academic year. They were selected using a simple random sampling method.

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7.4.2. Calculation of Some Psychometric Properties of the Study Instruments:

In order to ensure the applicability of the two instruments in this study, validity was tested using content validity (expert judgment), extreme group validity, and internal consistency validity. Reliability was tested using the split-half method and Cronbach's Alpha coefficient.

First: The Professional Competencies Acquired through the PED@TIC Platform Questionnaire

a. Content Validity (Expert Judgment):

This method ensures content validity, as it examines whether the items adequately represent the construct being measured. The initial version of the questionnaire consisted of (20) items distributed across five dimensions with five response alternatives, as previously mentioned. The instrument was submitted to a panel of experts with experience and specialization, composed of (5) professors.

Content validity of the items was calculated using **Lawshe's formula**.

$$\mathbf{CVR} = \frac{\boldsymbol{n - N/2}}{\boldsymbol{N/2}}$$

Where:

- ✓ **CVR:** Content Validity Ratio (experts' agreement coefficient).
- ✓ **n:** Number of experts in agreement.
- ✓ **N:** Total number of experts.

According to Lawshe's formula, an item is considered valid if the experts' agreement coefficient exceeds **0.6**.

Thus, the content validity ratio of the study instrument items can be determined using **Lawshe's equation** as follows:

CVR : 0.91

This value indicates that the scale enjoys a high level of validity.

b. Extreme Group Validity:

After conducting the pilot study with a sample of (30) newly recruited professors, and following the administration and scoring of the instrument, the following steps were undertaken:

- The scores were arranged from highest to lowest.

  The top (33%) and bottom (33%) of the scores were selected.

  The arithmetic mean and standard deviation were calculated for both the high and low groups.

  The t-value for independent samples was then computed, with $n_1 = 10$ and $n_2 = 10$.

These results are presented in the following table:

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Table (01): Results of the Extreme Group Validity Calculation for the Professional Competencies Acquired through the PED@TIC Platform

Group	Sample	Arithmetic Mean	Standard Deviation	Calculated *t*	Degree of Freedom	Statistical Decision	Significance Level
Lower	10	77.70	4.76	-4.721	18	0.000	0.05
Upper	10	102.70	16.05				

Based on the results presented in Table (01), it is observed that the calculated t-value was estimated at (-4.721), which is significant at the degree of freedom (18), since the value of (sig = 0.000) is lower than the significance level (0.05). This indicates the existence of differences between the upper and lower groups, and therefore the study instrument possesses an acceptable level of validity. Accordingly, it can be concluded that the instrument is valid and measures what it was designed to measure.

c. Internal Consistency Validity:

Internal consistency validity was calculated to determine whether the items of the study instrument are interrelated. This was done by computing the correlation coefficients between each dimension score and the total score of the instrument, as well as between each item and the competency dimension to which it belongs. The results are presented in the following table:

Table (02): Internal Consistency Validity of the Professional Competencies Acquired through the PED@TIC Platform

Dimensions	Item Number	Items	Value R	Sig
Pedagogical Competence	**01**	I plan my lessons according to what we were taught through the PED@TIC platform (Bloom's educational objectives).	0.829**	.000
	02	I use diverse teaching methods that take into account students' individual differences, in line with the training I received through the PED@TIC platform.	0.912**	.000
	03	The training through the PED@TIC platform provided me with new knowledge in planning educational activities and linking them to training objectives.	0.870**	.000
	04	The training through the PED@TIC platform helped me to become familiar with modern pedagogical approaches.	0.893**	**.000**
Technical Competence	**05**	I use digital tools to support teaching (presentations, videos, online quizzes).	0.626**	.000
	06	The training through the PED@TIC platform provided me with skills in designing educational resources such as presentations, instructional videos, and assessment exercises.	0.698**	.000
	07	The programs used on the PED@TIC platform enhanced my ability to design lessons and upload them on the Moodle platform.	0.555**	.000
	08	The training through the PED@TIC platform gave me skills in using lesson design tools (VU, edX, Moodle).	0.609**	.000

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Cognitive Competence	**09**	The training through the PED@TIC platform helped me broaden my knowledge in the field of higher education.	0.700**	.000
	10	I acquired a deeper understanding of modern principles and methods of university teaching through the training provided on the PED@TIC platform.	0.716**	.000
	11	Through the PED@TIC training, I gained a clear understanding of the requirements of a university professor in the context of digital transformation.	0.676**	.000
	12	The training through the PED@TIC platform provided me with the ability to keep pace with scientific developments by using the available digital resources.	0.761**	.000
Communication Competence	**13**	The training enabled me to master the interactive tools available on the platform (such as forums, messages, chats, instant quizzes) to ensure dynamic and effective communication.	0.773**	.000
	14	The training through the PED@TIC platform helped me .improve my digital communication with students	0.876**	.000
	15	Through the training, I learned how to manage virtual discussions in a scientific manner that respects everyone's opinions.	0.727**	.000
	16	The training through the PED@TIC platform gave me the ability to convey knowledge and information accurately and clearly in digital contexts.	0.610**	.000
Ethical Competence	**17**	The training through the PED@TIC platform helped me learn objective assessment methods.	0.751**	.000
	18	The training through the PED@TIC platform instilled in me the commitment to academic integrity when preparing digital materials.	0.901**	.000
	19	Through the training, I became more attentive to respecting authors' rights and scientific sources, especially when producing or using digital educational resources.	0.809**	.000
	20	The training reinforced values of teamwork, knowledge sharing, and supporting colleagues and students, thereby ensuring an ethical and supportive learning environment.	0.682**	.000
Pedagogical Competence			0.512**	.004
Technical Competence			0.683**	.000
Cognitive Competence			0.530**	.003
Communication Competence			0.641**	.000
Ethical Competence			0.755**	.001

It is clear from Table (02) that there is a correlation between each dimension and the total score of the study instrument. The strength of the correlation between each dimension and the overall score is considered a statistical indicator of internal consistency validity. The correlation coefficients ranged between (0.512 – 0.912) at the significance levels (0.01) and (0.05). Accordingly, all dimensions and items were retained.

d. Reliability:

Reliability was tested on the same pilot sample using the split-half method and Cronbach's Alpha coefficient. The results are presented in the following table:

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Table (03): Reliability Coefficients of the Professional Competencies Acquired through the PED@TIC Platform

Variable	Number of Items	Cronbach's Alpha	Split-Half (Spearman–Brown)	
			r (Before Adjustment)	r (After Adjustment)
Professional Competencies	32	0.878	0.646	0.785

From Table (03), it is observed that the reliability coefficient using Cronbach's Alpha was estimated at (0.878). As for the reliability coefficient using the split-half method, the value of r increased from (0.646) to (0.785) after being corrected with the Spearman–Brown formula. These are all high values, indicating that the study instrument enjoys a high degree of reliability, and can therefore be applied in the main study.

Second: Job Performance Questionnaire

a. Extreme Group Validity:

After conducting the pilot study with a sample of (30) newly recruited professors, and following the administration and scoring of the instrument, the following steps were undertaken:

— The scores were arranged from highest to lowest.

— The top (33%) and bottom (33%) of the scores were selected.

— The arithmetic mean and standard deviation were calculated for both the high and low groups.

— The t-value for independent samples was then computed, with $n_1 = 10$ and $n_2 = 10$.

These results are presented in the following table:

Table (04): Results of the Extreme Group Validity Calculation for Job Performance

Group	Sample	Arithmetic Mean	Standard Deviation	Calculated *t*	Degree of Freedom	Statistical Decision	Significance Level
Lower	**10**	**36.20**	**3.80**	**-11.23**	**18**	**0.000**	**0.05**
Upper	**10**	**56.50**	**4.81**				

Based on the results presented in Table (04), it is observed that the calculated t-value was estimated at (-11.23), which is significant at the degree of freedom (18), since the value of (sig = 0.000) is lower than the significance level (0.05). This indicates the existence of differences between the upper and lower groups, and therefore the study instrument possesses an acceptable level of validity. Accordingly, it can be concluded that the Job Performance Questionnaire is valid and can be applied in the main study.

b. Internal Consistency Validity:

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Internal consistency validity was calculated to determine whether the items of the study instrument are interrelated. This was done by computing the correlation coefficients between each dimension score and the total score of the instrument, as well as between each item and the dimension to which it belongs. The results are presented in the following table:

Table (05): Internal Consistency Validity of Job Performance

Dimensions	Item Number	Items	R	Sig
Quality Standard	**01**	You are keen to complete all your tasks with high accuracy.	0.849**	.000
	02	You plan extensively to complete outstanding academic courses.	0.940**	.000
	03	You prefer to use electronic media during teaching.	0.856**	.000
Quantity Standard	**04**	You have the ability to complete assigned tasks on time.	0.920**	.000
	05	You possess a strong ability to accomplish additional tasks assigned by the administration.	0.899**	.000
	06	You have more diverse tasks compared to your colleagues.	0.833**	.000
Time Standard	**07**	You usually complete your courses within the specified deadlines.	0.756**	.000
	08	You are able to adhere to the timetable in organizing scientific conferences.	0.790**	.000
	09	Compared to your colleagues, you take less time to accomplish the assigned pedagogical tasks.	0.559**	.000
Procedures Standard	**10**	You are committed to the strict application of your department's work procedures.	0.767**	.000
	11	You contribute to formulating your institution's work procedures.	0.739**	.000
	12	You demonstrate great flexibility in dealing with modified procedures.	0.835**	.000
Quality Standard			0.784**	.004
Quantity Standard			0.812**	.000
Time Standard			0.545**	.003
Procedures Standard			0.656**	.000

It is clear from Table (05) that there is a correlation between each dimension and the total score of the study instrument. The strength of the correlation between each dimension and the overall score is considered a statistical indicator of internal consistency validity. The correlation coefficients ranged between (0.545 – 0.940), all of which were significant at the (0.01) level. Accordingly, all dimensions and items were retained.

c. Reliability:

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Reliability was tested on the same pilot sample using the split-half method and Cronbach's Alpha coefficient. The results are presented in the following table:

Table (06): Reliability Coefficients of Job Performance

Variable	Number of Items	Cronbach's Alpha	Split-Half (Spearman–Brown)	
			r (Before Adjustment)	r (After Adjustment)
Job Performance	**12**	**0.820**	**0.712**	**0.847**

From Table (06), it is observed that the reliability coefficient using Cronbach's Alpha was estimated at (0.820). As for the reliability coefficient using the split-half method, the value of r increased from (0.712) to (0.847) after being corrected with the Spearman–Brown formula. These are all high values, indicating that the Job Performance Questionnaire for university professors enjoys a high degree of reliability and can therefore be applied in the main study.

7.5. Main Study

7.5.1. Main Study Sample:

After ensuring the validity of the instruments, they were administered to the participants of the main study sample. It is commonly acknowledged that the sample size varies from one study to another and from one researcher to another, and its determination may depend on several factors such as time, effort, and financial resources. For this study, a sample consisting of (43) newly recruited university professors from the 2023 cohort at Kasdi Merbah University – Ouargla was selected using a simple random sampling method.

A total of (50) questionnaires were distributed, of which (43) were retrieved, representing a recovery rate of (86%). The difference between the number of distributed and retrieved questionnaires was due to the non-return of some questionnaires and the exclusion of others that were not fully completed.

Table (07): Distribution of the Main Study Sample

Faculty	Number	Percentage
Faculty of Humanities and Social Sciences	18	% 41
Faculty of Natural and Life Sciences	05	% 11
Faculty of Mathematics and Material Sciences	03	% 6.76
Faculty of Economic, Commercial and Management Sciences	04	% 9.30
Faculty of Letters and Languages	10	% 23
Faculty of Hydrocarbons, Renewable Energies, Earth and Universe Sciences	03	% 6.67
Total	43	%100

From the statistics presented in Table (07), it is observed that the highest proportion of newly recruited professors was in the Faculty of Humanities and Social Sciences, numbering (18), which represents (41%). This was followed by the Faculty of Letters and Languages with (10)

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professors (23%), the Faculty of Natural and Life Sciences with (05) professors (11%), the Faculty of Economic, Commercial and Management Sciences with (04) professors (9.30%), and finally the Faculty of Hydrocarbons, Renewable Energies, Earth and Universe Sciences and the Faculty of Mathematics and Material Sciences with (03) professors each (6.67%).

7.5.2. Procedures for Conducting the Main Study:

After confirming the validity of both instruments—the Professional Competencies Acquired through the PED@TIC Platform Questionnaire and the Job Performance Questionnaire and after defining the main study sample, they were administered to newly recruited professors at Kasdi Merbah University – Ouargla, March 2023 cohort. The administration took place during the period from (15–20) March of the 2023/2024 academic year. The questionnaires were distributed to the sample, with clear instructions to complete the personal data and answer all questions before submission. Afterwards, the data were coded and entered according to standard procedures for analysis in order to obtain results in line with the proposed hypotheses, using the Statistical Package for the Social Sciences (SPSS v25) for statistical processing.

7.6. Presentation, Analysis, and Interpretation of the Study Results:

This section presents the results of the main study as revealed by the statistical analysis of the data collected from the sample of (43) newly recruited professors at Kasdi Merbah University – Ouargla. The results are presented according to the proposed hypotheses, analyzed, and discussed based on the statistical processing using SPSS v25.

7.6.1. Presentation, Analysis, and Interpretation of the First Hypothesis Results:

The first hypothesis states the following:

- The level of job performance among newly recruited university professors at the University of Ouargla is high.

To verify this hypothesis, the arithmetic mean and the standard deviation of the responses were calculated. It is worth noting that the theoretical mean of the scale adopted in this study is (36). The results obtained are presented in the following table:

- Theoretical Mean =2/(1×12)+(5×12) = 36

Table (08): Results of the One-Sample t-Test to Examine the Significance of Differences between the Theoretical Mean and the Arithmetic Mean of the Participants' Scores on the Job Performance Questionnaire

Variable	Number of Items	Theoretical Mean	Arithmetic Mean	Standard Deviation	Degree of Freedom	Calculated *t*	Sig	Significance Level
Job Performance	12	**36**	**44.02**	8.38	42	5.958	000.	0.05

From Table (08), it is observed that the arithmetic mean of the responses of the study sample on the instrument was greater than the theoretical mean. The hypothetical mean of the instrument

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was calculated to be (36). The difference between the two means was tested using the one-sample t-test. The calculated t-value was (5.958), while the significance value (sig = 0.000) was less than the significance level (0.05) at the degree of freedom (42). This result is statistically significant, which indicates that the differences between the means are real. Consequently, the hypothesis stating that the level of job performance among newly recruited university professors at the University of Ouargla is high has been confirmed.

This result can be explained by several psychological and professional factors. Newly recruited professors are often characterized by strong motivation to work, an urgent desire to demonstrate competence and merit, and a noticeable enthusiasm to prove themselves and achieve professional integration. This drives them to exert considerable effort in carrying out their teaching duties. Moreover, the nature of the initial employment stage imposes a form of commitment and high discipline due to administrative supervision and continuous evaluation by administrators, colleagues, and students. In this context, the new professor seeks to maintain a positive professional image and earn the trust of the university institution, which pushes them to exert additional effort that translates into high job performance during the early phase of their career.

Furthermore, the reduced involvement in administrative or managerial tasks at the beginning of their professional path allows them to concentrate more on pedagogical and academic aspects, which contributes to achieving positive results in job performance. In addition, their intensive use of modern technologies in teaching and assessment enhances their effectiveness in delivering knowledge and improving their performance level.

7.6.2. Presentation, Analysis, and Interpretation of the Second Hypothesis Results:

The second hypothesis states the following:

- The level of professional competencies acquired through the PED@TIC platform among newly recruited university professors at the University of Ouargla is high.

To verify this hypothesis, the arithmetic mean and the standard deviation of the responses of the study participants on the instrument were calculated. It is worth noting that the theoretical mean of the scale adopted in this study is (60). The results obtained are presented in the following table:

- Theoretical Mean =2/(1×20)+(5×20) = 60

Table (09): Results of the One-Sample t-Test to Examine the Significance of Differences between the Theoretical Mean and the Arithmetic Mean of the Participants' Scores on the Professional Competencies Acquired through the PED@TIC Platform Questionnaire

Variable	Number of Items	Theoretical Mean	Arithmetic Mean	Standard Deviation	Degree of Freedom	Calculated *t*	Sig	Significance Level
Professional Competencies	20	**60**	**76.60**	13.65	42	7.97	000.	0.05

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From Table (09), it is observed that the arithmetic mean of the responses of the study sample on the instrument was greater than the theoretical mean. The hypothetical mean of the instrument was calculated to be (60). The difference between the two means was tested using the one-sample t-test. The calculated t-value was (7.97), while the significance value (sig = 0.000) was less than the significance level (0.05) at the degree of freedom (42). This result is statistically significant, which indicates that the differences between the means are real. Consequently, the hypothesis stating that the level of professional competencies acquired through the PED@TIC platform among newly recruited university professors at the University of Ouargla is high has been confirmed.

This result is consistent with the findings of Sabiha Mariem (2024), whose study aimed to identify the importance of training and its role in the professional adaptation of newly recruited university professors. Her results showed that face-to-face training programs contribute to improving the professional adaptation of newly recruited professors.

The result can also be explained by the fact that the training received by newly recruited university professors through the PED@TIC platform contributes to strengthening their professional competencies. This high level of competencies may be attributed to the professors' demonstrated mastery and proficiency in various professional tasks related to university teaching, including effective pedagogical planning, the ability to use digital and technological tools in the educational process, effective educational communication with students, balanced classroom management, and the use of diverse and fair evaluation methods. Such a high level is an indicator of the effectiveness of the digital training provided by the platform, the professors' ability to acquire and apply knowledge in practice, and their intrinsic motivation for learning and professional development.

Presentation, Analysis, and Interpretation of the Third Hypothesis Results:

The third hypothesis states the following:

- The professional competencies acquired through the PED@TIC platform among newly recruited university professors at the University of Ouargla can be statistically predicted based on job performance and its dimensions.

To test this hypothesis, the standard multiple linear regression analysis was used to assess the validity of the regression model applied in this study for examining the relationship between job performance (considered the dependent variable) and the dimensions of professional competencies acquired through the PED@TIC platform (considered the independent variables).

Table (10): Results of the Standard Multiple Linear Regression Analysis for Predicting the Professional Competencies Acquired through the PED@TIC Platform Based on Job Performance

Order of Entry of Independent Variables into the Prediction Equation	β Value	Standard Error	Standardized β (Beta)	T-test	P-value (Sig)	F-test	P-value (Sig)	R	R^2	Coefficient of Determination R^2
Dependent Variable: Job Performance	41.408	8.929	/	4.638	0.000	9.381	0.000	0.705	0.497	0.444

Independent Variable	**Quality Standard**	2.243	0.479	0.581	4.680	0.000					
	Quantity Standard	0.895	0.431	0.268	2.074	0.045					
	Time Standard	0.970	0.776	0.191	1.251	0.219					
	Procedures Standard	0.762—	0.832	— 0.149	0.916—	0.366					

From Table (10), it is observed that the time standard and the procedures standard were excluded from the model in light of the results of the standard multiple regression analysis, due to their weak effect on the professional competencies acquired through the PED@TIC platform. Their impact was not statistically significant in the regression model on the dependent variable (professional competencies acquired through the PED@TIC platform). On the other hand, the quality standard and the quantity standard were found to have a statistically significant effect in the regression model on the dependent variable.

It is also noted that the correlation coefficient (R) between the dependent variable (professional competencies acquired through the PED@TIC platform) and the independent variable dimensions (job performance) was (0.705), indicating a strong positive relationship between the two variables. The coefficient of determination (R^2) was estimated at (0.497), and the adjusted coefficient of determination (Adjusted R^2) was estimated at (0.444). This means that the independent variable, with its two dimensions (quality standard and quantity standard), explained (44.4%) of the variance in the dependent variable (professional competencies acquired through the PED@TIC platform), which is statistically significant. The remaining (55.6%) is attributed to other factors.

Furthermore, the results in Table (10) show that the value of (F) was (9.381), which is statistically significant at the level (0.000). This indicates that the regression is significant, meaning that the independent variables (quality standard and quantity standard) have a significant effect in the regression model. This confirms both the explanatory power and statistical significance of the regression model. Accordingly, the regression line fits the data, as illustrated in the following figure:

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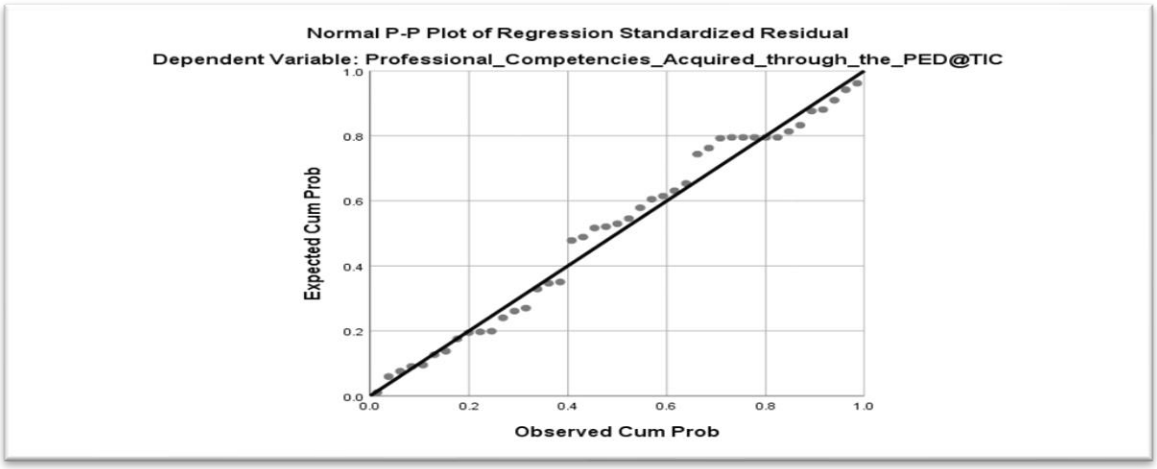

Figure (01): Graphical Representation of the Goodness of Fit of the Regression Line for the Relationship between the Dependent and Independent Variables

From the table, the regression line equation can be determined as follows:

$$Y=41.408 + (2.243)X1 + (0.895)X2$$

- **Interpretation of the Regression Equation:** The regression equation of (Y) on (X) is expressed as follows:

Job Performance = 41.408 + 2.243 × Quality Standard + 0.895 × Quantity Standard

This means that:

- For every **one-unit increase in the quality standard**, the professional competencies acquired through the PED@TIC platform increase by 2.243 units.
- For every **one-unit increase in the quantity standard**, the professional competencies acquired through the PED@TIC platform increase by 0.895 units.

This result is consistent with the findings of Amina Toualga and Wasifa Krika, who concluded that pedagogical training in ICT techniques and their pedagogical applications for newly recruited university professors contributes to improving their teaching skills. It also aligns with the findings of Sabiha Mariem (2024), which showed that training has a significant effect on improving the job performance of newly recruited professors, encouraging their active participation in assessing students' activities, improving their performance, and developing the teaching process among new professors.

The regression analysis results demonstrated that the quality and quantity standards of job performance contribute significantly to predicting the professional competencies acquired through the PED@TIC platform among newly recruited university professors. This significant effect can be attributed to the fact that high-quality performance reflects a high level of mastery and professional commitment, which enables new professors to effectively apply their knowledge and skills in the university environment, thereby enhancing their professional competencies. The quantity dimension, on the other hand, refers to the volume of effort exerted and activities undertaken, which reflects the degree of engagement and intensive practical

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experience, thereby contributing to the reinforcement of expertise and the accumulation of applied skills.

This result can further be interpreted in light of the nature of the training provided by the platform, which focuses on developing both qualitative (quality) and quantitative (quantity) aspects of professors' performance. The quality dimension reflects the professor's ability to effectively utilize the training content, such as pedagogical competencies, digital technologies, and university communication strategies, which directly improves their performance within the academic environment. The quantity dimension refers to the extent of the professor's engagement in training activities and the number of modules or resources invested in during the training period, which contributes to the accumulation of acquired experiences.

The relationship between these two dimensions and professional competencies confirms that mastery in performance (quality) and intensity of practice (quantity) are decisive factors in building professional competence, particularly during the early stages of a university professor's career. From this perspective, the significant relationship between these two dimensions and professional competencies reflects the effectiveness of the PED@TIC platform in developing job performance in ways that translate into real competencies, especially in the initial phases of university teaching. Thus, both the qualitative and quantitative aspects of training are essential factors in acquiring the skills necessary for success in the higher education profession.

GENERAL CONCLUSION:

The present study aimed to identify the level of job performance and the level of professional competencies acquired through the PED@TIC platform among newly recruited professors, in addition to examining the possibility of predicting the professional competencies acquired through the PED@TIC platform among the study sample based on job performance. The findings revealed the following:

- ✓ The level of job performance among newly recruited university professors at the University of Ouargla is high.
- ✓ The level of professional competencies acquired through the PED@TIC platform among newly recruited university professors at the University of Ouargla is high.
- ✓ The quality standard and the time standard contribute to predicting the professional competencies acquired through the PED@TIC platform among newly recruited university professors at the University of Ouargla.

Recommendations and Suggestions:

The study proposes the following:

- ⇒ Conduct comparative studies between professors who benefited from training through the PED@TIC platform and those who did not, on the same studied variables.
- ⇒ Expand research to include intermediary variables such as satisfaction, professional motivation, and emotional intelligence to measure their impact on the relationship between job performance and professional competencies.

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⇒ Establish a periodic evaluation mechanism to assess the extent to which training through the PED@TIC platform is reflected in the performance of newly recruited university professors.

⇒ Regularly review the training materials provided through the PED@TIC platform to ensure alignment with the latest pedagogical and technological developments in higher education.

⇒ Organize field meetings or parallel practical workshops alongside the platform-based training, allowing new professors to test their skills in a real environment.

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