


DIGITAL COMPETENCE AND JOB PERFORMANCE IN UNIVERSITY TEACHERS IN THE PUBLIC SECTOR

Mery Gemeli Masias-Fernandez^A, Tania Yossely Nolberto Acosta^B, Julia Lizet Torres Rivera^C, Wilmer Santiago Ayambo-Cortez^D, William Eduardo Mory Chiparra^E



ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 08 May 2023</p> <p>Accepted 04 August 2023</p>	<p>Purpose: The objective of the study is to describe and evaluate the association of digital competence and job performance in public sector university teachers located in Lima, Peru.</p>
<p>Keywords:</p> <p>Digital Competence; Job Performance; University; Teachers; Public Sector.</p>	<p>Theoretical framework: Being the digital competence necessary to improve the performance of teachers and increase their labor remuneration (Martín-Cuadrado et al., 2021).</p>
	<p>Design/Methodology/Approach: The same that has been possible to verify; thanks to the cross-sectional design and correlational descriptive level. In a sample of 184 university professors; who decided to participate freely and voluntarily to answer the questionnaires.</p> <p>Findings: The results show that the digital competence of teachers is at the advanced level at 45.7%, followed by the intermediate level with 38.9% and low at 15.5%. And in terms of work performance, the average level comes out with 36.2%, high 32.9% and low 13.3%. And by associating digital competence and job performance; it is found that the correlation value is (Rho = .290, p<.001); which expresses being of low magnitude and positive direction. Existing a nexus of positive and significant direction between both.</p> <p>Research, practical & social implications: Evidencing that the development of digital skills is associated with the job performance of university teachers in the public sector according to their praxis and academic work. That is, the optimization of the work performance of university teachers improves to the extent that they develop their digital skills, favoring teaching, the use of active strategies; problem solving and timely information management using digital media.</p> <p>Originality/Value: Because digital competence acts as a conditioning element for job performance in the exercise of university teaching.</p> <p>Doi: https://doi.org/10.26668/businessreview/2023.v8i8.3251</p>

^A Magister in Management of the Talent Human. Teacher. School of Administration, César Vallejo University. Peru. E-mail: mmasiasf@ucvvirtual.edu.pe Orcid: <https://orcid.org/0000-0001-8276-4394>

^B Doctor in Accounting. School Professional of Accounting, César Vallejo University. Peru. E-mail: molberto@ucv.edu.pe Orcid: <https://orcid.org/0000-0002-3774-5933>

^C Doctor in Sciences of the Education. Teacher. University, César Vallejo University. Peru. E-mail: jtorres25@ucvvirtual.edu.pe Orcid: <https://orcid.org/0000-0003-2848-4978>

^D Magister in Administration of Company. César Vallejo University. Peru. E-mail: wayambo@ucvvirtual.edu.pe Orcid: <https://orcid.org/0000-0002-3021-8057>

^E Doctor in Administration of the Education. Teacher. Headquarters of Research Training, César Vallejo University. Peru. E-mail: wmoryc@ucv.edu.pe Orcid: <https://orcid.org/0000-0003-1404-4605>

COMPETÊNCIA DIGITAL E DESEMPENHO EM PROFESSORES UNIVERSITÁRIOS DO SETOR PÚBLICO

RESUMO

Objetivo: O objetivo do estudo é descrever e avaliar a associação de competência digital e desempenho do trabalho em professores universitários do setor público localizados em Lima, Peru.

Estrutura teórica: Ser a competência digital necessária para melhorar o desempenho dos professores e aumentar sua remuneração do trabalho (Martín-Cuadrado et al., 2021).

Projeto/Metodologia/Abordagem: O mesmo que foi possível verificar; graças ao projeto transversal e ao nível descritivo correlacional. Numa amostra de 184 professores universitários, que resolveram participar livre e voluntariamente para responder aos questionários.

Constatações: Os resultados mostram que a competência digital dos professores está no nível avançado em 45,7%, seguida pelo nível intermediário com 38,9% e baixo em 15,5%. E em termos de desempenho do trabalho, o nível médio sai com 36,2%, 32,9% alto e 13,3% baixo. E associando a competência digital e o desempenho do trabalho; verifica-se que o valor de correlação é ($Rho = .290, p < .001$); o que expressa ser de baixa magnitude e direção positiva. Existe um nexo de direção positiva e significativa entre ambos.

Investigação, implicações práticas e sociais: Prova de que o desenvolvimento de competências digitais está associado ao desempenho profissional dos professores universitários no setor público, de acordo com a sua prática e trabalho acadêmico. Ou seja, a otimização do desempenho no trabalho dos professores universitários melhora na medida em que eles desenvolvem suas habilidades digitais, favorecendo o ensino, o uso de estratégias ativas; resolução de problemas e gerenciamento oportuno de informações usando mídia digital.

Originalidade/Valor: Porque a competência digital atua como um elemento de condicionamento para o desempenho do trabalho no exercício do ensino universitário.

Palavras-chave: Competência Digital, Desempenho do Trabalho, Universidade, Professores, Setor Público.

COMPETENCIA DIGITAL Y DESEMPEÑO LABORAL EN DOCENTES UNIVERSITARIOS DEL SECTOR PÚBLICO

RESUMEN

Objetivo: El objetivo del estudio es describir y evaluar la asociación de la competencia digital y el desempeño laboral en docentes universitarios del sector público ubicados en Lima, Perú.

Marco teórico: Ser la competencia digital necesaria para mejorar el desempeño de los docentes y aumentar su remuneración laboral (Martín-Cuadrado et al., 2021).

Diseño/Metodología/Enfoque: El mismo que ha sido posible verificar; gracias al diseño transversal y al nivel descriptivo correlacional. En una muestra de 184 profesores universitarios, quienes decidieron participar libre y voluntariamente para contestar los cuestionarios.

Resultados: Los resultados muestran que la competencia digital de los docentes se encuentra en el nivel avanzado en 45,7%, seguido por el nivel intermedio en 38,9% y bajo en 15,5%. Y en términos de rendimiento laboral, el nivel promedio sale con 36,2%, alto 32,9% y bajo 13,3%. Y al asociar competencia digital y desempeño laboral se encuentra que el valor de correlación es ($Rho = .290, p < .001$), lo cual expresa ser de baja magnitud y dirección positiva. Existe un nexo de dirección positiva y significativa entre ambos.

Investigación, implicaciones prácticas y sociales: Evidenciar que el desarrollo de competencias digitales está asociado al desempeño laboral de los docentes universitarios del sector público según su praxis y trabajo académico. Es decir, la optimización del desempeño laboral de los docentes universitarios mejora en la medida en que desarrollan sus habilidades digitales, favoreciendo la enseñanza, el uso de estrategias activas, la resolución de problemas y la gestión oportuna de la información utilizando medios digitales.

Originalidad/Valor: Porque la competencia digital actúa como un elemento condicionante para el desempeño laboral en el ejercicio de la docencia universitaria.

Palabras clave: Competencia Digital, Rendimiento del Trabajo, Universidad, Profesores, Sector Público.

INTRODUCTION

At the international level, digital transformation is being experienced. Change that has its influence in the social, labor, economic, educational fields. And that requires professionals to develop new digital skills in order to become more competent in their workplaces. And the society where digital tools are being introduced with greater ease and unlimited access (Spirit et al., 2023; Iswahyudi et al., 2023; Palos-Sánchez et al., 2023).

It is pointed out that at the level of Latin America and the Caribbean in many areas there is a lack of promoting the development of skills and digital innovation. And that many professionals have not managed to develop cognitive, technical and attitudinal skills in the face of technological change. This is due to the lack of training by institutions. Since there is a limited number of graduates in science, technology, engineering, among others. This generates low productivity due to the limited digitalization of companies, institutions, businesses, universities (Gonzalez-Tamayo et al., 2023; Summers et al., 2022).

At least the development of basic digital skills is needed, which should be oriented to be applied in technological innovations as tools that generate information and knowledge. And, in this way, teachers develop competencies necessary to provide a more relevant education to students. But, the existence of the insufficiency of digital skills, within the framework of the transformation that higher education professionals are experiencing, should be committed to the new changes from technological innovation. Because they run the risk of losing job opportunities and not responding to the new demands of education mediated by technology (Sandleaf, 2023; Huaman et al., 2021).

In this context, in Peru, SUNEDU as the governing organization is responsible for guaranteeing basic quality conditions (CBC) in higher education. For this reason, it has granted licenses and denied to others. In accordance with the provisions of Law No. 30220 (University Law), the quality of higher education is guaranteed, which is under continuous observation within the framework of the relicensing and accreditation of professional careers. In this sense, university professors to be hired, ratified and promoted must undergo a process of self-evaluation and external evaluation. As ordered by Law No. 30220 (University Law); where it is indicated that the University is responsible for the periodic and annual evaluation of work performance, training and research work (Maquera-Maquera & Russet-Walls, 2021; Deroncele-Acosta et al., 2023).

The universities of Peru have as their function permanent education, research, continuous improvement, social projection and university management by results. This requires

that university teachers must be in accordance with the new requirements. And demonstrate good work performance through the production of educational resources using digital media and incorporating technological advances in the development of class sessions. Because there is a digital divide between the professional training of university teachers and millennial students and generation Y who seek benefits, growth opportunities, develop their skills and work in teams (Hernández et al., 2021; Niño-Cortés et al., 2023).

It is clear that universities within the framework of relicensing and accreditation have taken on the challenge of developing digital skills in their teachers. And above all, to create the technological conditions for the good work performance of university professors. However, the effort is not everyone's but only some universities. In this context; in order to show how the level of progress and promotion of digital skills in teachers is taking place; and how it is linked to work performance This study has been implemented in public universities. Evidence that, as the conceptualization and theoretical orientation points out, would lead us to have an integral understanding (Lawes-Wickwar et al., 2023).

LITERATURE REVIEW

Digital competence is a subjective construct that is modified as new computer and digital technologies appear. Digital competence brings together a set of skills in relation to the use of digital technology, managing applications, information access networks, favoring creation, exchange, communication, collaboration and interactivity for the solution of problems. Digital skills are necessary for professional development. Within the framework of connectivity theory (Corbett & Joint, 2020).

Competencies are a set of knowledge, skills and attitudes developed by the person. In this sense, digital competences respond to the set of knowledge, skills and attitudes linked to digital technologies or digital environments. That is why it is pointed out that digital competences are part of the eight key competences for lifelong learning. Which must be developed by university teachers at a basic, intermediate and advanced level in order to consolidate in the framework of higher education with quality (Huaman et al., 2021).

Being digitally competent entails the ability to use digital media to manage information critically, judiciously, using the various digital tools and applications. The same ones that are necessary for teachers to perform in their work and get better paid jobs (Martín-Cuadrado et al., 2021).

Work performance responds to a multidimensional and interdisciplinary construct. That is, the fulfillment of duties, responsibilities, considering the quantity and quality of work. The same that is linked to the behavioral abilities of people in a personal way. Which is expressed, in the performance within the organization, institution, company, among others. That is why behaviors or actions that are significant for the achievement of objectives in an organization. Therefore; Work performance responds to the voluntary actions of the person to obtain results in the organization within a certain period (Liu et al., 2023; kumari & Kumar, 2023).

The performance of a person in the organization, institution, company, university, etc.; It can vary depending on the environment, management, administration, leadership, authority, among others. Therefore, the performance in the person is a variable with multiple expressions and behaviors that are expressed within a period of time. Which as an expression depends on the mood, conditions, behaviors, context, results, etc. That is, the performance of the person expresses their cognitive level, freedom, will (Ardies et al., 2015) and non-verbal expression for the achievement of performance results (kumari & Kumar, 2023).

Likewise, it is pointed out that performance depends on the competences, abilities, behavior, skills and cognitive level of the subject. And the work is the action that the subject performs based on the education, skill and competencies developed. In this sense, work performance, being a multidimensional construct related to competencies, skills, behavior and cognitive level depends on the will of the worker within the organization, institution, company, university, among others. That is why; that job performance has been analyzed from Gestalt theory. The Behaviorist Theory and the Learning Theory of Jean Piaget (Gough, 2023; Bolhuis et al., 2023).

That is why it is posed as a research question: How is digital competence related to work performance and its dimensions in the teachers of a Public University? Sustaining against this question the a priori hypothesis that digital competence is significantly correlated with job performance and its dimensions in the teachers of a Public University. Seeking to validate this statement through the analysis of the data collected in the study sample. Therefore, the purpose is to describe and evaluate the association of digital competence with work performance and its dimensions in public sector university teachers located in metropolitan Lima of Peru.

Due to the importance of the study, this will seek to propose improvement strategies to develop digital skills in teachers. Seeking to develop the skills, abilities, abilities and competencies in university teachers. The same ones that will later have an impact on improving the educational quality taught to students at the university level within the framework of

relicensing and accreditation of professional careers. Considering that the advancement of technology and its incorporation into education have been changing the way of teaching, learning, managing knowledge and information. That is, the way teachers teach and student learning has changed; going from being an individual activity to a collaborative work in digital networks. Having an impact on work performance. Because it is related to the promotion of professional skills through innovation, technological modernization and productive diversification. In order to make the work of the teacher more efficient and in accordance with the new demands of higher education (Dimitriadou & Lanitis, 2023; García-Carrera et al., 2023; Miruthula & Shanmugapriya, 2023).

METHODOLOGY

The study responds to be cross-sectional and correlational descriptive design; the same that has been raised as hypothetical deductive. In this regard; It is considered to be cross-sectional because the data collected for the study have been carried out at a single moment in the study sample. It is descriptive because the presentation of the results will describe the level of development of digital competence and job performance. Because it is correlational, it seeks to associate the correlation results of digital competence and job performance. It is hypothetical-deductive because the possible proposed response was raised a priori before collecting the data and analyzing them.

The sample considered in the study are a total of 184 professors belonging to public universities located in Metropolitan Lima of Peru. Those who have participated freely and voluntarily in the study. In this sense, the type of sampling implemented has been for convenience. And to collect data in relation to digital competence, two questionnaires designed on the Lickert scale have been used. Which for their validity were reviewed by university professors with methodological and statistical experience. Likewise, the level of reliability of the instruments by Cronbach's alpha was verified; obtaining the result for digital competence a coefficient of 0.877 and for work performance of 0.877. This indicates that both implemented questionnaires reported having a high level of reliability.

RESULTS AND DISCUSSION

From the data analyzed, it has been possible to obtain the following results that are presented descriptively in table 1 in relation to the levels of digital competence and in table 2 of the levels of work performance. And Table 3 presents the results of inference or association

of digital competence and work performance, accompanied by associations with their respective dimensions.

Table 1: Digital competence frequency distribution and dimensions

Digital competence				
	Basic	Intermediate	Advanced	Total
Frequency	18	81	85	184
Percentage	9.8%	44.0%	46.2%	100.0%
Cumulative percentage	9.8%	53.8%	100.0%	
Information				
Frequency	28	71	85	184
Percentage	15.2%	38.6%	46.2%	100.0%
Cumulative percentage	15.2%	53.8%	100.0%	
Communication				
Frequency	40	74	70	184
Percentage	21.7%	40.2%	38.0%	100.0%
Cumulative percentage	21.7%	62.0%	100.0%	
Content creation				
Frequency	25	70	89	184
Percentage	13.6%	38.0%	48.4%	100.0%
Cumulative percentage	13.6%	51.6%	100.0%	
Safety				
Frequency	42	63	79	184
Percentage	22.8%	34.2%	42.9%	100.0%
Cumulative percentage	22.8%	57.1%	100.0%	
Troubleshooting				
Frequency	29	72	83	184
Percentage	15.8%	39.1%	45.1%	100.0%
Cumulative percentage	15.8%	54.9%	100.0%	

Source: Prepared by the authors (2023).

Descriptive analysis; To the variable of digital competence of the professors of the public university studied, it is appreciated that the advanced level stands out with 46.5%. While, in the intermediate level it was 44.0%. In contrast, 9.8% of respondents were found at the basic level who were still at that level. Therefore, 53.8% of teachers responded to the items between a basic and intermediate level.

In relation to the dimensions of digital competence, it should be noted that, in information, 46.2% of teachers estimated at an advanced level in the use of information in the teaching process. Meanwhile, another 38.6% considered at an intermediate level. On the contrary, 15.2% indicated at a basic level the management of information. For this reason, it was noted among the perceptions of the teachers surveyed a level of response between basic and intermediate that represented a cumulative of 53.8%.

Likewise, with regard to communication, 40.2% of teachers were found to respond to the affirmation of the instrument at the intermediate level. In contrast, 38.0% were at the advanced level. On the contrary, 21.7% of teachers indicated the basic level. Due to which, the

perception of the teachers was expressed in their answers, being the basic and intermediate route and represented by 62.0%.

Similarly, in terms of content creation, it was found that 48.4% of teachers were at the advanced level. On the other hand, 38.0% of teachers mentioned being at the intermediate level. Conversely, 13.6% of teachers valued being at the basic level. In short, 51.6% of teachers considered their answers convenient between the basic and intermediate levels, respectively.

Additionally, 42.0% of teachers estimated that they had confidence at an advanced level. When, 34.2% considered the intermediate level. Unlike 22.8% of teachers who estimated to be at a basic level. Therefore, it is evident that 57.1% of teachers weighed their answers between the basic and intermediate level respectively.

Finally, with respect to problem solving, 45.1% of teachers were found to indicate the advanced level. Meanwhile, another 39.1% of teachers revealed to be at the intermediate level. However, 15.8% of teachers associated it with the basic level. Thus, 54.9% of teachers expressed their opinions between a basic and intermediate level.

In general, according to the descriptive results; It is noted that the advanced level of 45.7% stands out in terms of digital competence, according to the perceptions established by the surveyed teachers of a public university. While, in the intermediate level it is 38.9% and, finally, in the basic level it is 15.5%. These results show that there is a gap that must be covered in a relevant manner by the competent authorities.

Table 2. Distribution of work performance frequencies and their dimensions

Job Performance				
	Low	Middle	High	Total
Frequency	22	131	31	184
Percentage	12.0%	71.2%	16.8%	100.0%
Cumulative percentage	12.0%	83.2%	100.0%	
Performance of tasks				
Frequency	23	62	99	184
Percentage	12.5%	33.7%	53.8%	100.0%
Cumulative percentage	12.5%	46.2%	100.0%	
Contextual performance				
Frequency	26	71	87	184
Percentage	14.1%	38.6%	47.3%	100.0%
Cumulative percentage	14.1%	52.7%	100.0%	
Counterproductive performance				
Frequency	113	37	34	184
Percentage	61.4%	20.1%	18.5%	100.0%
Cumulative percentage	61.4%	81.5%	100.0%	

Source: Prepared by the authors (2023).

From the descriptive analysis in relation to the work performance of the teachers surveyed; It is noted that the average level stands out with 71.2%. While, in the high level the perception was 16.8%. However, 12.0% were installed in the low level. Therefore, there is 83.2% of teachers who associated their answers between the low and medium level, respectively.

Regarding task performance, the opinion of teachers was at the high level with 53.8%. Next, another group of teachers identified with the middle level and represented by 33.7% was found. In contrast, another segment of teachers was identified at the low level with 12.5%. Thus, 46.2% of the teachers who responded to the statements indicated that they were between the low and medium level.

Similarly, in relation to contextual performance, it should be noted that 47.3% of teachers acknowledged identifying with the high level. Additionally, another 38.6% identified with the medium level. Meanwhile, another 14.1% associated their responses with the low level. Therefore, 52.7% of the teachers who were surveyed appreciated their answers in the low and medium levels, respectively.

Finally, regarding counterproductive performance, it was found that 61.4% perceived it as low. Meanwhile, another 20.1% of teachers estimated at a medium level. However, 18.5% estimated at a high level. In sum, 81.5% estimated at the low and medium levels the responses to the proposed reagents.

In general terms, the work performance showed from the results a median at the low level of 13.3%, according to the perceptions established by the surveyed professors of the public university. While, in the medium level it was 36.2% and, finally, in the high level it reached 32.9%. These results highlight the existing gap in the work performance of university professors; the same that should be opportunely guided by the managers of university education. It can be seen that the modal distributions of the observed variables indicate a positive direction for both digital competence and job performance, although job performance suggests a decline in the medium-high level.

And in order to know the level of correlation between digital competence and its dimensions with the variable work performance, the following results have been observed.

Table 3. Correlations of digital competence, dimensions and job performance

Hypothesis	Variable 1	Variable 2	Rho de Spearman	Correlations	N	Magnitude
				Significance bilateral		
General	Digital skills	Job performance	.290**	<.001	184	Casualty
Dimensions						
Specific 1	Information	Job performance	.167*	.024	184	Very Low
Specific 2	Communication	Job performance	.256**	<.001	184	Casualty
Specific 3	Content creation	Job performance	.196**	.008	184	Very Low
Specific 4	Safety	Job performance	.223**	.002	184	Casualty
Specific 5	Troubleshooting	Job performance	.306**	<.001	184	Casualty

** . The correlation is significant at the 0.01 (bilateral) level.

* . The correlation is significant at the 0.05 (bilateral) level.

Source: Prepared by the authors (2023).

In this sense, from the relationship analysis of the general hypothesis, it is noted that there is a link between digital skills and job performance, being the value (Rho = .290, $p < .001$); which indicates a positive direction and low magnitude. Likewise, it was found that the sample is significant when finding a value $p = 0$. Thus, the null hypothesis is rejected and the alternative raised both in the general hypothesis and the specific ones is accepted.

Similarly, it was observed with respect to specific hypothesis 1, that is, the link between the dimension information and work performance, the finding of the value (Rho = .167, $p < .05$), this shows a positive direction and a very low magnitude. Similarly, it was found that the sample found is significant when finding a value $p = .024$.

Likewise, with regard to specific hypothesis 2, referring to the relationship between the communication dimension and work performance, a value (Rho = .256, $p = <.001$) was found, which indicates a positive direction with a low magnitude. Thus, it was confirmed that the sample is significant when a p value = 0 was found.

Similarly, with respect to specific hypothesis 3, that is, the association between the content creation dimension and job performance, the existence of a value (Rho = .196, $p = .008$) was appreciated. This means a positive direction and a very low magnitude. Thus, it was corroborated that the sample is significant when a p value = 0 was found.

Likewise, in relation to hypothesis 4, that is, the link between the security dimension and work performance, the finding of a value (Rho = .223, $p = .002$) was verified. Which is why it is a positive direction and a low magnitude. Therefore, it was confirmed that the sample is significant when a p -value = 0 was found.

Finally, in relation to specific hypothesis 5, the relationship between the problem-solving dimension and work performance was established, being verified in this case by the

value ($Rho = .306$, $p = .001$), the existence of a relationship with a positive direction and a low magnitude. Thus, it was confirmed that the sample is significant when a p value = 0 was found.

The results found allow us to infer some scenarios that are explained below by contrasting them with what is referred to in previous research. Teachers have basic competencies and, therefore, their job performance is low. But if the teacher gives added value to this competence with an active methodology, they can reach an average performance.

Teachers have intermediate skills and, therefore, their work performance is shown between medium and high. Here, two situations arise: i) That the teacher with intermediate competence does not have sufficient active methodological expertise, therefore, his work performance can be seen between medium and low. ii) That the teacher with intermediate competence has sufficient expertise and active methodological resources, this will give added value to intermediate skills, so that by optimizing their pedagogical praxis will imply that their level of work performance is high (Hasumi & Chiu, 2023).

Teachers have advanced skills and, therefore, their job performance is high. Also here there are two situations: i) That the teacher with advanced skills does not have enough didactics to be able to reach students with the use of digital tools (he does not let himself be understood when explaining his use) then his level of work performance will be affected, the perception will be that he does not reach the student, so high job performance can concur at an intermediate level. ii) That the teacher has advanced skills and pedagogical practice, that is, provide added value to teaching, so it will imply a high level of work performance (Hartmann et al., 2017).

Therefore, work performance is immersed in a specific historical space, that is, a knowledge society that has science and technology as its engine of development and requires people to develop new digital skills, which is why teachers must be active participants in digital literacy and the construction of a digital culture. Thus, the Covid 19 pandemic made it possible to accelerate the digital transformation of universities so that they can give a timely response to the socioeconomic fabric of the knowledge society. Warning that the use of digital resources becomes a conditioning factor, but not a determining factor in effective work performance. Because, at this level, an important aspect is the pedagogical praxis itself, so digitalization has also arrived, allowing it to be a relevant element now. And, to the extent that it continues to deepen, the pedagogical competences of teachers linked to problem solving are vital, for which it is necessary to know how to select the information, translate it into relevant and pertinent content, but, above all, know how to communicate them, always taking into account the levels of security that this implies, that is, data protection, intellectual protection, among other aspects

(To Nugroho & Bandonon, 2023;Gómez-Galán et al., 2021;Palos-Sánchez et al., 2023;Niño-Cortés et al., 2023).

Thus, digital skills are a conditioning element, because they give great added value to the pedagogical praxis of teachers, which allows them to optimize their work performance. Additionally, it is also true that there is a generation gap in the context of teachers of public universities, in addition to the scarce technological infrastructure it has, because it demands significant investment flows, something that a public university cannot do, due to the scarce budget allocated. However, another important aspect that should be noted is that the exercise of a pedagogical praxis in the university environment demands as a determining element the competence to learn to learn, which allows teachers to update themselves and access MOOC courses, allowing them to train in the innovative technological tools that appear and give an important added value to the teaching process, where the direction of this process, particularly, focuses more and more strongly on the resolution of problems and increasingly innovative projects (Zampier et al., 2022).

Likewise, it is important to highlight that the key element for a good use of digital competences lies in the clear, pertinent and relevant management of information so that it is then communicated, that is, socialized through various mechanisms that allow reaching students. In good account it is mediated information that has as a qualitative aspect the creation of content that fits the objectives of learning and allows students to make an adequate appropriation and develop high levels of autonomy, critical thinking and a systemic and complex vision of reality. In good measure, stimulating their creativity and innovation. Hence, the importance that the teacher teaches students to maintain security standards in the treatment of data and information, where respect for intellectual property and use of patents is important that the student is familiar. An understanding of the problem in which, the teacher through the use of digital skills allows to develop levels of security through *blockchain* technology. And finally, to influence the problem-solving approach through case studies and research and innovation projects that encourage students to develop their research, innovation and soft skills skills. Task that occurs within a complex environment in which the mediating role of the teacher is important, to ensure the quality of effective professional training.

CONCLUSION

In general, it is noted from the results that teachers place their level of digital competence at an advanced level with 45.7%. While, in the intermediate level it is 38.9% and,

finally, in the basic level it is 15.5%. These results reveal a gap that must be covered in a relevant manner by the competent authorities.

In general terms, job performance showed from the results a median at the low level of 13.3%, according to the perceptions established by the surveyed professors of a public university. While, in the medium level it was 36.2% and, finally, in the high level it reached 32.9%. Emphasizing that it must be resolved in a timely manner through the incorporation of active methodological strategies that stimulate experiential learning and, therefore, meaningful in students.

In relation to the general hypothesis, the link between digital skills and job performance can be seen, with the value ($Rho = .290$, $p < .001$) indicating a positive direction and a low magnitude. Likewise, it was found that the sample is significant when finding a value $p = 0$. Therefore, the null hypothesis is rejected and the alternate one is accepted. The results found allow us to infer some scenarios. Teachers have basic digital skills and, therefore, their job performance is low. But if the teacher gives added value to this competence with an active methodology, they can reach an average performance. Thus, digital skills are a conditioning element, because they give great added value to the pedagogical praxis of teachers, which allows them to optimize their work performance.

In conclusion, the findings allow us to establish a link between digital skills and job performance. Being the positive direction, although of low magnitude. However, by virtue of the descriptive results, it allows us to infer that, with greater training of university teachers in the public sector in digital skills, they could significantly improve their level of job performance. However, it should be noted that the optimization of the work performance of university teachers improves to the extent that they develop their digital skills which will favor the teaching process, as well as optimize active methodological strategies, which should be focused on problem solving and knowledge management to contribute to organizational learning.

REFERENCES

- Ardies, J., De Maeyer, S., Gijbels, D., & van Keulen, H. (2015). Students attitudes towards technology. *International Journal of Technology and Design Education*, 25(1), 43–65. <https://doi.org/10.1007/S10798-014-9268-X>
- Bolhuis, J. J., Crain, S., & Roberts, I. (2023). Language and learning: the cognitive revolution at 60-odd. *Biological Reviews*. <https://doi.org/10.1111/BRV.12936>

Corbett, F., & Spinello, E. (2020). Connectivism and leadership: harnessing a learning theory for the digital age to redefine leadership in the twenty-first century. *Heliyon*, 6(1). <https://doi.org/10.1016/J.HELIYON.2020.E03250>

Deroncele-Acosta, A., Jiménez-Chumacero, R. V., Gamarra-Mendoza, S., Brito-Garcías, J. G., Flores-Valdivieso, H. G., Velázquez-Tejeda, M. E., & Goñi-Cruz, F. F. (2023). Trends in Educational Research for Sustainable Development in Postgraduate Education Programs at a University in Peru. *Sustainability (Switzerland)*, 15(6). <https://doi.org/10.3390/SU15065449>

Dimitriadou, E., & Lanitis, A. (2023). A critical evaluation, challenges, and future perspectives of using artificial intelligence and emerging technologies in smart classrooms. *Smart Learning Environments*, 10(1). <https://doi.org/10.1186/S40561-023-00231-3>

García-Carrera, P., García-Segura, S., & Falla, D. (2023). The role of self-efficacy and academic engagement in the perceived employability of university students in Education and Psychology. *Revista Complutense de Educacion*, 34(2), 357–365. <https://doi.org/10.5209/RCED.79311>

Gómez-Galán, J., Martínez-López, J. Á., Lázaro-Pérez, C., & García-Cabrero, J. C. (2021). Open innovation during web surfing: Topics of interest and rejection by Latin American college students. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 1–17. <https://doi.org/10.3390/JOITMC7010017>

Gonzalez-Tamayo, L. A., Maheshwari, G., Bonomo-Odizzio, A., Herrera-Avilés, M., & Krauss-Delorme, C. (2023). Factors influencing small and medium size enterprises development and digital maturity in Latin America. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(2). <https://doi.org/10.1016/J.JOITMC.2023.100069>

Gough, J. (2023). Does the Neurotypical Human Have a ‘Theory of Mind’? *Journal of Autism and Developmental Disorders*, 53(2), 853–857. <https://doi.org/10.1007/S10803-021-05381-2>

Hadi Nugroho, S. A., & Bandon, A. B. (2023). The Effect of Compensation, Labor Insurance, and Old Age Guarantee on Employee Satisfaction in Government Institutions. *International Journal of Professional Business Review*, 8(5), e01969. <https://doi.org/10.26668/businessreview/2023.v8i5.1969>

Hartmann, D., Guevara, M. R., Jara-Figueroa, C., Aristarán, M., & Hidalgo, C. A. (2017). Linking Economic Complexity, Institutions, and Income Inequality. *World Development*, 93, 75–93. <https://doi.org/10.1016/J.WORLDDEV.2016.12.020>

Hasumi, T., & Chiu, M. S. (2023). Higher Education Intellectual Performance, Social Network, and Strategies During the Pandemic: A Bibliometric Approach to Online Mathematics Education. *Higher Education in Asia, Part F3*, 39–67. https://doi.org/10.1007/978-981-99-1874-4_3

Hernández, R. M., Saavedra-López, M. A., Calle-Ramirez, X. M., & Rodríguez-Fuentes, A. (2021). Index of undergraduate students’ attitude towards scientific research: A study in peru and spain. *Jurnal Pendidikan IPA Indonesia*, 10(3), 416–427. <https://doi.org/10.15294/JPII.V10I3.30480>

Huaman, D. R. T., Rodriguez, M. A. A., Cordero, R. C., & Huaman, A. L. T. (2021). Digital skills, teacher's leadership styles and academic performance in the digital learning context. *Proceedings of the 2021 IEEE Sciences and Humanities International Research Conference, SHIRCON 2021*. <https://doi.org/10.1109/SHIRCON53068.2021.9652359>

Iswahyudi, P., Dwiyanto, Kosasih, A., & Putra, I. (2023). The Relationship Between Individual Competencies and Creativity of Cadet with Knowledge Sharing: A Case Study at the Indonesian Pilot Academy. *International Journal of Professional Business Review*, 8(7), e02485. <https://doi.org/10.26668/businessreview/2023.v8i7.2485>

kumari, J., & Kumar, J. (2023). Influence of motivation on teachers' job performance. *Humanities and Social Sciences Communications*, 10(1). <https://doi.org/10.1057/S41599-023-01662-6>

Lawes-Wickwar, S., Lovat, E., Alao, A., Hamer-Hunt, J., Yurtoglu, N., Jensen, C., Clarke, N., Roberts, N., & Park, S. (2023). Digital undergraduate medical education and patient and carer involvement: a rapid systematic review of current practice. *BMC Medical Education*, 23(1), 335. <https://doi.org/10.1186/S12909-023-04218-Z>

Linh, C. T. T., Huong, H. T., & Tien, N. D. (2023). Enhancing Digital Capacity for Students at Higher Education Institutions Under the Ministry of Home Affairs in the Context of Digital Transformation. *Revista de Gestão Social e Ambiental*, 17(5), e03567. <https://doi.org/10.24857/rgsa.v17n5-018>

Liu, W., Lu, H., Li, P., van der Linden, D., & Bakker, A. B. (2023). Antecedents and outcomes of work-related flow: A meta-analysis. *Journal of Vocational Behavior*, 144. <https://doi.org/10.1016/J.JVB.2023.103891>

Maquera-Maquera, Y. A., & Bermejo-Paredes, S. (2021). Subjectivities and pedagogical intervention of physical education teachers in contexts of cultural diversity in the Puno-Peru region. *Revista Electronica Educare*, 25(2). <https://doi.org/10.15359/REE.25-2.9>

Martín-Cuadrado, A. M., Lavandera-Ponce, S., Mora-Jauregui, B., Sánchez-Romero, C., & Pérez-Sánchez, L. (2021). Working methodology with public universities in Peru during the pandemic-continuity of virtual/online teaching and learning. *Education Sciences*, 11(7). <https://doi.org/10.3390/EDUCSCI11070351>

Miruthula, G., Shanmugapriya & A. R. (2023). Emotional Intelligence's Impact on Managers Work Performance. *Journal of Social and Environmental Management*, 17(4), e03440. <https://doi.org/10.24857/rgsa.v17n4-009>

Niño-Cortés, L. M., Grimalt-Álvaro, C., Lores-Gómez, B., & Usart, M. (2023). Digital gender divide in high school: differences in self-perceived competence and attitude towards technology. *Education XX1*, 26(2), 299–322. <https://doi.org/10.5944/EDUCXX1.34587>

Palos-Sánchez, P. R., Baena-Luna, P., García-Ordaz, M., & Martínez-López, F. J. (2023). Digital Transformation and Local Government Response to the COVID-19 Pandemic: An Assessment of Its Impact on the Sustainable Development Goals. *SAGE Open*, 13(2). <https://doi.org/10.1177/21582440231167343>

Sandblad, A. (2023). On professional skill in the age of digital technology: What happens when work is instrumented with technology. *AI and Society*. <https://doi.org/10.1007/S00146-023-01668-3>

Summers, K., Crist, J., & Streitwieser, B. (2022). Education as an Opportunity for Integration: Assessing Colombia, Peru, and Chile's Educational Responses to the Venezuelan Migration Crisis. *Journal on Migration and Human Security*, 10(2), 95–112. <https://doi.org/10.1177/23315024221085189>

Zampier, M. A., Stefani, S. R., & Dias, B. G. (2022). Sustainable Development Goals - SDGS in the Context of the Covid-19 Pandemic in Cooperatives. *Revista de Gestão Social e Ambiental*, 16(2), e02913. <https://doi.org/10.24857/rgsa.v16n2-004>