DIGITAL SKILLS AND INVESTIGATIVE SKILLS OF STUDENTS OF THE FACULTY OF ACCOUNTING SCIENCES.

Orbe Dávila José Antonio [1]

Correo: jose.orbe@unapiquitos.edu.pe

ORCID: https://orcid.org/0000-0001-5376-798

Chong Vela Rilke [1]

Correo: rilkechong@unapiquitos.edu.pe

ORCID: https://orcid.org/0000-0003-0962-2888

Rosales León Tomás Francisco [2]

Correo: trosales@unfv.edu.pe

ORCID: https://orcid.org/0000-0003-4949-9343

Castillo Huamán Gina Maribel [3]

Correo: gcastilloh@unfv.edu.pe

ORCID: https://orcid.org/0000-0003-2947-5977

Reátegui Paredes Víctor Raúl [2]

Correo: victor.reategui@unapiquitos.edu.pe

ORCID: https://orcid.org/0000-0003-3189-4759

[1] Universidad Nacional de la Amazonía Peruana. Perú.

[2] Universidad Nacional Federico Villarreal. Perú.

[3] Universidad Nacional Hermilio Valdizán – Huánuco. Perú.

ABSTRACT.

Scientific advances in information and communication technologies in the 21st century have led to an accelerated process of transformation in different areas of life. The training process in universities has not been exempt from this, so teachers and students have constant growth goals in their training. The development of digital skills in society has allowed a faster and more advanced search for solutions to different problems, so accounting science students also require a high development of these skills. New advances and digital skills are essential elements for the development of research skills in students, so an analysis of the state of digital skills and research skills in a sample of accounting sciences students is conducted. The applied instruments allowed obtaining results that show there is a satisfactory development in the students but still distant from those required for their effective performance in professional life so that the development of competences responds to the needs of society in the solution to the problems presented.

Keywords: skills, digital, investigative, training, teaching, information, development.

INTRODUCTION.

At the beginning of the twenty-first century, humanity has begun to experience changes at great speed with respect to the ways of accessing, communicating and storing information of different kinds. The power of almost unlimited access to multiple sources demands new skills on the part of the subjects who learn at different social levels. Although technologies by themselves do not imply changes in the ways of learning, they do favor the practice, the development of skills, of ways of relating in specific social contexts that are mediated by the use of devices. In this sense, computers and mobile devices are mainly found, which have expanded the limits of access to information from anywhere in the world.

The rapid advance of new information and communication technologies has created new conditions for the knowledge society (Zhao, Pinto Llorente, & Sánchez Gómez, 2021). In today's information society, it is necessary that the population receives the required literacy in the use of technology that will allow them to manage with autonomy and critical capacity in a completely mediatized environment. This framework has been identified in multiple studies around the scientific and technological advances that have been developed over the years.

This regulation recovers the widespread need for media literacy, from the educational system, seen as one of the important requirements to promote equitable access to information and knowledge, and to promote free, independent and pluralistic media and information systems. (Rodríguez, Méndez, & Martín, 2018) within the social system.

In this sense, it can be seen that, in the education system, for any person, digital competence has become one of the key competences that must have been developed for the efficient achievement of systematic learning work and to be able to incorporate into adult life in a satisfactory way. Challenges for training and education providers, to date, also include issues related to the resources and skills needed to teach and train. (Humphries, Nordvik, Manifavas, Cobley, & Sorell, 2021). That is why curricula must include sufficient training in digital competence and has led to the identification of various works that refer to technological competence and that have to do with the capacity, knowledge and attitude about the use of information and communication technologies in their various functions and contexts of application. And so they do to then raise some of the international standards that have been used, to date, in the analysis of these competencies in Information and Communication Technologies (ICT) (Rodríguez, Méndez, & Martín, 2018), (Flores Flores, Ramos Cevallos, Huachua Pallin, Villarroel Nuñez & Reyes Blácido, 2022).

Digital competence is one of the basic competences of the XXI century and is also included as a transversal competence in the programs of all universities. On the other hand, in the higher education system, educational innovation must become a basic element of daily work if institutions are to adapt to the labor and economic context of society. Of the many concepts that have been developed on competence, for the purposes of the research is taken that of Pavié (2011, p. 77) who understands that "it is a group of combined elements (knowledge, skills, abilities and abilities) that are mobilized and integrated by virtue of a series of personal attributes, in concrete contexts of action".

The INCOTIC questionnaire (Inventory of ICT Competences) is also a tool developed specifically for the self-assessment of the digital competence of university students (Gisbert, Espuny and González, 2011). This questionnaire has 6 blocks: sociodemographic data; access to digital resources; degree of use of ICTs in general; training in ICT or through ICT; self-perception of their ICT competence, understood as technological literacy, use of ICT as learning resources, incidence of ICT as competent citizens, use of ICT for intellectual work, as an information tool and as a communication tool; and finally, a section on their attitude towards ICTs, raising various situations and contexts of application so that they can express their opinion (Calatayud, García, & Espinosa, 2018).

In *The NMC Horizon Report: 2017 Higher Education Edition*, which projects trends in higher education in the world, poses as an urgent challenge the improvement in the digital literacy of university students. It proposes to transcend the operational management of current technologies and proposes a conscious, reasoned and critical use of these in specific contexts (National Institute of Educational Technologies and Teacher Training [INTEF], 2017a). This report also identifies as a short-term challenge the establishment of bridges between learning practices in formal and informal contexts (López-Gil & García, 2020).

The review of several works shows that digital competence is based on the idea that it is a necessary competence in the formation of the citizen of the XXI century, since it is also necessary to face lifelong learning. This line of thought has meant that the impact of ICT in university teaching can be analyzed from 4 different perspectives: the teacher, the student, the curriculum and the learning process. To the dimensions contemplated by the different standards developed, at the international level, we could add a basic question as such contemplated by authors such as Branekova (2015: 455); Well, in terms of digital skills, according to this author, "each competence, in addition to cognitive knowledge and skills, also includes attitudes, willingness and ability to learn"

In the educational context, digital competences have not only been associated with the order of the development of communicative and learning skills, an important aspect is also the investigative competences achieved in students with the support of ICT. Taking into account that one of the sustainable development goals framed in quality education aims to achieve by 2030 a considerable increase in the number of young people and adults who have the necessary skills, in particular technical and professional, to access employment, decent work and entrepreneurship.

It is necessary that teachers incorporate into their training plan pedagogical strategies that allow students to develop competencies that provide future professionals with important knowledge and skills to access better employment opportunities and the possibility of more advanced studies where it is required to have such skills, with special emphasis on competences aimed at research (Lay, Ramírez and Parra, 2019). That is, it is necessary to include and implement teaching-learning strategies based on cooperative work, taking into account that this represents an ideal means to promote learning by

7283

competences, incorporating tasks aimed at training people and professionals with the ability to respond to the needs of society (Martínez-Garcés and Garcés Fuenmayor, 2020).

Learning is a process through which a change in knowledge, beliefs, behavior and attitudes is achieved; that are due to the result of lived experiences that increase the potential and capacities to perform better in present and future activities (Ambrose, et al., 2017). That is, it is a dynamic process in order to achieve a change in behavior and cognitive processes, as a result of the experience obtained from adapting to changing and demanding environments (Garcés and Mora, 2020).

García, Tejeda and Torres (2014), define competence as a set of knowledge, skills, abilities and attitudes that enable and mobilize a person in an integral way, to act effectively before the demands of a given context. In this sense, a training based on the development of competences implies a teaching-learning process that aims to facilitate the transmission of knowledge and the generation of skills and abilities, developing in the individual the ability to put into practice said acquired competences, in order to solve emerging situations that may occur in the different contexts of their reality (Rabanal, et al., 2020), which allows the development of skills necessary to function successfully during their professional training and later in the work context.

In this new process mediated by the use of ICT, student learning is the most important, beyond the teacher's teaching, hence the teacher assumes the leading role in their training process, managing their own learning with the support, advice and guidance of the teacher (Pirela, et al., 2019). This approach in the context of higher education favors the reinforcement of generic competences, but fundamentally allows the development of new, more specific competences, including research training (Barreiro, 2015). Thus, scientific research competencies can be understood as "the ability to employ an individual's scientific knowledge and the use of that knowledge to identify problems, acquire new knowledge, explain scientific phenomena and draw evidence-based conclusions on science-related issues" (Organisation for Economic Co-operation and Development [OECD], 2006, p.13), that is, they imply the appropriation of scientific knowledge and use to identify, understand, interpret and explain phenomena of their reality and thereby reach scientific conclusions.

The formation of university models that link research with professional and academic training is a vital process for these institutions and the contributions to which they are committed in their social context (Gutiérrez Rojas, Peralta Benítez, & Fuentes González, 2019). According to Rubio, et al. (2018), the research competences in the different professionals of the different disciplines, favor social development, innovation and business competitiveness, hence professionals are increasingly required from the academy, are trained in this type of skills, considering that in this third millennium, characterized especially by an extraordinary and vertiginous scientific advance, it is necessary to train future professionals in scientific research skills, which allow them to acquire and generate knowledge, contributing beyond the sciences to enrich and qualify citizen training (García and Suárez, 2015). There are different types of investigative skills, according to Buendía, Zambrano and Insuasty (2018), which are summarized as: skills to ask, observational, reflective, propositional, technological, interpersonal, cognitive, procedural, analytical and communicative.

The development of research skills in university students is of interest and necessity in the training process, so the research presented aims to carry out an analysis of the state of digital and research skills in students of the Faculty of Accounting Sciences, for which specific objectives will be worked on:

- Analyze the state of development in accounting science students of digital competences
- Verify the state of research skills based on the use of digital skills in accounting science students.

MATERIALS AND METHODS.

The literature review was carried out through research of scientific works that addressed the topic related to digital competences and research competences. The scientific research analyzed in the subject, was taken to the exchange with teachers and students that is taken as a sample in the research, with the aim of achieving truthful results, for which the application of theoretical, empirical and statistical methods has been required.

Historical-logical: it allowed to determine what are the antecedents of the training process of accounting science professionals and their transformation into the development of digital skills and their use in research according to advances in science and technology.
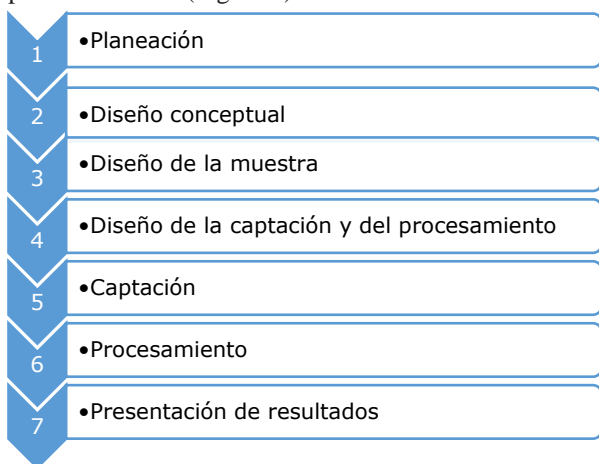
Analysis-synthesis: the study of normative documents, the educational training process and the work with teachers and students who were interviewed in the research process, in addition to the research analyzed on the application of technology in the development of investigative skills.

7284

Inductive-deductive: the elements provided during the research as well as the bibliographic review, allowed to specify to a greater extent the causes of the difficulties and their behavior, as well as the possible solutions to achieve greater satisfaction.

Direct observation: to the training process and research activities, to collect information about the object of study through the use as a fundamental way of perception.

Interview: to assess with teachers the actions that are developed according to digital competences and research competences with students.

Surveys: For this process, the steps to be followed with the subjects participating in the research were organized in a planned manner (Figure 1).

1	•Planeación
2	•Diseño conceptual
3	•Diseño de la muestra
4	•Diseño de la captación y del procesamiento
5	•Captación
6	•Procesamiento
7	•Presentación de resultados

Figure 1. Organization for the survey application. Source: Authors.

In the design and application of a questionnaire, a balance was sought, without delving into the superficial. To this end, the Equation for finite samples (Vallellano & Rubio-Valdehita, 2018).

$$n = \frac{Z^2 pqN}{E^2(N-1) + Z^2 pq} \tag{1}$$

Where:

N: total population

Z: 1.96 squared (if the security is 95%)

P: expected proportion (in this case 50% = 0.5)

Q: 1– p (in this case 1-0.5 = 0.5)

e: margin of error (in the investigation it is 6.82%)

Substituting the values in equation 1, the result is n, from which a sample of 150 students from VII to IX cycle was determined.

RESULTS.

In the exchange with the professors of the Faculty of Accounting Sciences, in the subject related to the development of digital competences, they consider that they have introduced important changes in the process of training students in the different university careers. The use of ICT within the training process introduced, at his discretion, an impulse and transformation to acquire knowledge by students, new goals for teachers, forced to interact and learn in unison with students and the search for new work alternatives in the teaching-learning process.

Teachers consider that the passage of time and technological advances have facilitated the acquisition of deeper knowledge in students, as well as the search for solutions to problems, proposals for new ways of working in situations of professional life and has facilitated work in the search and expansion of the information required in a certain subject, while updating it instantly. Most of the teachers reported having acquired skills in handling and working with the formation of digital competences (Figure 2).

7285
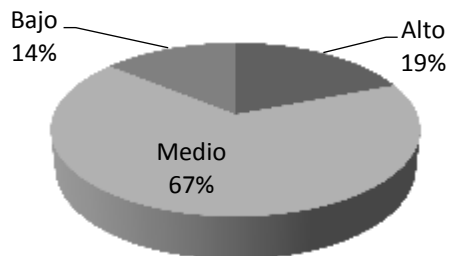
Figure 2. Level of mastery of digital skills by teachers. Source: Authors.

The development of digital competences requires to a large extent the willingness, will and abilities that each student has. Teachers consider that, at present, although there are still some students with difficulties in this regard and who are not affected by the use of technologies in a systematic way, notable advances have been made in their application for the development of knowledge (Figure 3).
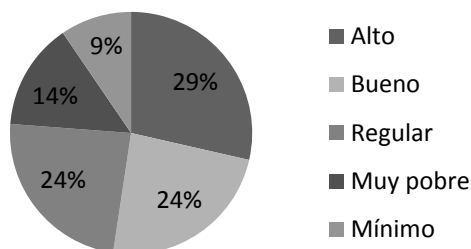

Figure 3. Teachers' criteria on the development of digital skills in students. Source: Authors.

The development of research skills in students is considered a priority by teachers and the use of ICT in this sense, they consider has favored their development and the search for new knowledge and learning alternatives. Teachers consider that the research skills shown in students have been reaching satisfactory levels (Figure 4), although they are not yet desired.
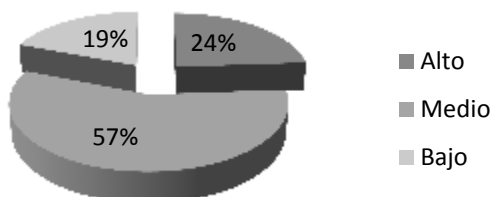

Figure 4. Level acquired in the research competences by the students according to the criteria of the teachers. Source: Authors.

The use of ICT by students is one of the most widespread phenomena in the twenty-first century as part of the transformations in citizenship. The development of digital skills in them and their use in the training process is fundamentally mediated by the level of experiences they acquire in daily use and exchange between them and society. To assess the level they have acquired in digital skills and their application in the teaching process, some instruments were applied to the selected sample of students. To analyze the skills acquired in the management of ICT, the use of cell phones was used to analyze the time spent searching for requested information (Figure 5).

7286
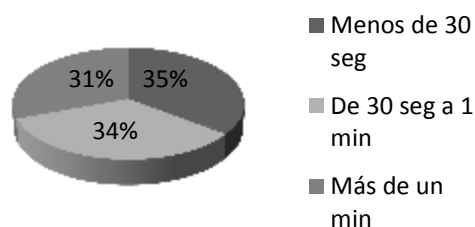
Figure 5. Time spent searching for information. Source: Authors.

In the use of ICT to search for information in important databases, which would allow responding to a simple problem that was posed to them (Figure 6), it was seen that although most students have skills in the domain of ICT, the results are not the same when searching for information in reliable databases and rigor for the updated information in the proposal of responses to a certain topic, elements in which it is still necessary to continue working on the part of teachers.

	Scopus	Scielo	Elsevier	Google académico	Google	Enciclopedias
Publicaciones	14	11	7	34	75	9
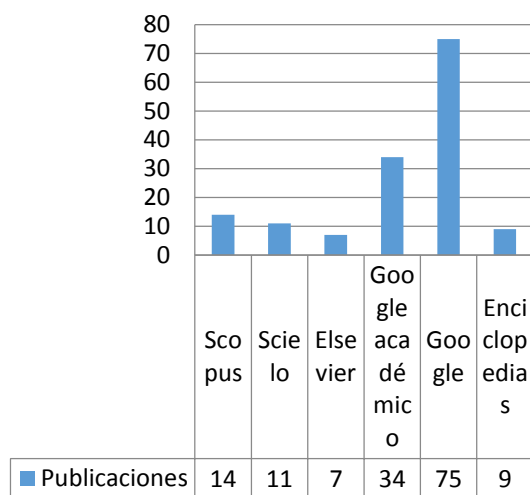
Figure 6. Search for publications to respond to the problems raised. Source: Authors.

The data reveal that the greatest tendency of students is to search for information in more general databases such as Google.com and a little academic Google, while databases with high-level publications such as Elsevier, are less used to search for rigorous and updated information, which favors a proposal for a more concrete and timely response to the problem under analysis.

The skills achieved by students in the development of digital competences are of greater importance when these are applied to the formation of research competences in order to favor social development, innovation and business competitiveness from the preparation of the student within the teaching-learning process. In the research, some analysis of the development achieved by the students of the sample in the research competences proposed by Buendía, Zambrano and Insuasty (2018) will be carried out. The instruments applied with different problems to be solved in three different moments of measurement to the students allowed to show the results reflected in table 1, with respect to the location in level for each of the investigative competences.
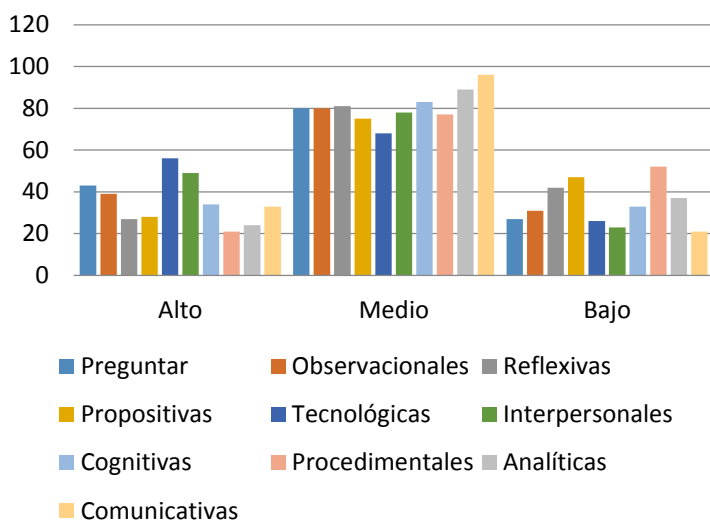
Table 1. Level reached by students in research skills.

Competences	High	Middle	Low
Ask	43	80	27
Observational	39	80	31
Reflective	27	81	42

7287

|			
Propositional	28	75	47
Technological	56	68	26
Interpersonal	49	78	23
Cognitive	34	83	33
Procedural	21	77	52
Analytical	24	89	37
Communication	33	96	21

Source: Authors.

The analysis of the results obtained by reflecting them in a bar graph (Figure 7), shows that, within the research skills worked, those related to technology and interpersonal are achieved at a higher level. At the middle level, the largest number of students are in the development of communicative and analytical skills, while the least achieved, being at the lowest level and requiring more work, are procedural, purposeful and reflective. Communication and interpersonal skills present fewer difficulties, which shows achievements in the establishment of collaborative links between students for the development of activities.

Figure 7. Levels achieved by students in research skills. Source: Jointly prepared.

When analyzing the general situation that students have in the development of research skills, it is appreciated that most of them have a medium level of preparation, still finding a significant amount at low levels, which require continuing with the intentional work by teachers (Figure 8). The high levels correspond to the mastery of students over digital skills, which facilitate the search for information and proposal of solutions with the application of various forms and tools provided by ICT.
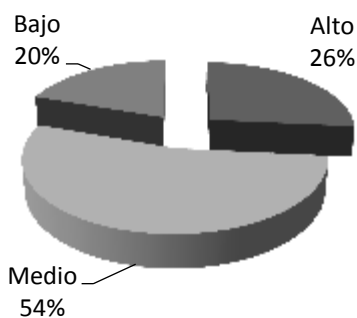
Figure 8. Level reached by students in research skills. Source: Authors.

7288

Eur. Chem. Bull. 2023, 12 (Special Issue 5), 7282 – 7291

DISCUSSION.

The advances in information and communication technologies that have been developed over the years in the twenty-first century have set new goals for citizens and with it, in the educational system for all staff, with emphasis on teachers and students. Teachers have been required to study new ways of working, the application of ICT and the development of new strategies for student learning.

The development of digital skills, both in students and teachers, not only needs to have the devices for work, but also largely part of the will to acquire new skills and knowledge, dedicate time to the search for information and learning in the different tools and applications provided with ICT, the development of skills in the management of these technologies and the systematic search for new forms of work, their application and development for professional and social life. In the teaching process, it has been shown that 38% of students have acquired good levels of development in digital skills, while they must still continue working with another 23% of students, in which although there are trained skills, they are not sufficient for the development of digital competences that are required in the training process of the professional future, for the search for new solutions to social situations and in the companies where they develop their professional life.

The development of digital competences has a high level of influence on students to achieve higher levels of development in research competences. The study showed that 69% of students manage to search for information in a short period of time, but the sources used for the search, in most cases, are not the most appropriate or of scientific rigor, but general sources of search engines such as Google are used, in which the materials do not always have high rigor of scientificity and veracity in the publications. In this sense, greater guidance and work actions are required by teachers with students, for the development of skills in search engines of higher scientific level and high-level databases in their publications, where information is permeated with rigor, science and topicality, such as Scopus, SciELO and Elsevier.

The investigative competences have been developed in the students at different levels, taking greater development of the technological, interpersonal and communicative competences. These competences favor the work in the students by achieving an exchange between them and the use of the technological means with the possibilities and tools that they offer, however, they do not constitute the fundamental ones in the investigative competences. The competences that students require in observation, analysis, reflection, knowledge and proposals for answers or solutions, are important aspects within the research, being elements in which they must continue working within the training process of university students of Accounting Sciences.

20% of the students who were part of the sample analyzed, still have difficulties in the development of the different research skills, within which some of them start from the difficulties they have in digital skills. In this order of competences, there is an appreciable relationship between the development of digital competences and research competences in university students of accounting sciences. It is necessary to increase the individualized work in the training process with students with greater difficulties in digital skills, so that these allow achieving greater results in the subsequent development of research skills. The levels reached by students of accounting sciences, despite being adequate in their majority, can be even higher, for this teachers must continue to improve the strategies of work in this regard with students.

There are many problems that young university students will have to face in their professional lives, where research skills will play an important role in the development of analysis, the search for information that is required and the proposed solution to it. The preparation they manage to achieve in their academic training constitutes the main basis for their social development.

The results shown in the research with the analysis of some aspects related to digital competences and research competences are a work material for teachers of accounting science careers. The transformations that occur within the training process have to start from the diagnosis of the real state in the development of competences, in order to direct actions towards the achievement of the desired state. In this sense, the work of the teacher and the participation of the student in their own training and acquisition of knowledge and skills is broad, all of which contribute to the competences required as a social individual who must respond to the interests and needs of this.

CONCLUSIONS.

The twenty-first century brought with it a growing development of information and communication technologies within society, which led to numerous transformations within the teaching processes in universities. Students and professors of accounting sciences have developed actions in order to achieve advances in the development of digital skills and research skills for professional performance.

The digital competences in the students of accounting sciences, benefit from the level of knowledge that they are reaching in the domain of technologies, the updating of these in a systematic way and the social exchange that occurs on a large scale today, where technological advances facilitate the search for information and the guidance of the teacher makes it updated and with scientific rigor.

Students of accounting sciences, manage to achieve satisfactory levels of development in research skills, but more work is necessary in the acquisition of greater skills, with emphasis on those skills that allow analysis, reflection, interpretation, knowledge and propose new answers and solutions to the problems that arise within the training process and that in turn, They form the basis for efficient performance in professional life.

REFERENCES:

Ambrose, S. A., Bridges, M. W., Lovett, M. C., Norman, M. K., & Diprieto, M. (2017). How learning works. Seven research-based principles for smart teaching. Editorial Universidad del Norte. https://books.google.com.cu/books?hl=es&lr=&id=PNJCDwAAQBAJ&oi=fnd&pg=PA1&dq=C%C3%B3mo+funciona+el+aprendizaje.+7+principios+basados+en+la+investigaci%C3%B3n+para+una+ense%C3%B1anza+inteligente&ots=ZVm70Kdm5x&sig=Zo7aerUH7hvxaxgRBANZ_6fs-_M&redir_esc=y#v=onepage&q=C%C3%B3mo%20funciona%20el%20aprendizaje.%207%20principios%20basados%20en%20la%20investigaci%C3%B3n%20para%20una%20ense%C3%B1anza%20inteligente&f=false

Barreiro, P. E. (2015). The research competences of the student in the teaching-learning process. Electronic Journal Training and Educational Quality (REFCalE), 3(1), 57-68. http://refcale.uleam.edu.ec/index.php/refcale/article/view/45

Branekova, D. (2015). Acquisition of digital competence in ICT courses for students in Pedagogy. Trakia Journal of Sciences, (13), 454-461. Retrieved from http://www.uni-sz.bg/tsj/Vol.%2013,%202015,%20Suppl.%201,%20Series%20Social%20Sciences/PF/PF/Pedag_Obraz_politiki/D.Branekova.pdf

Buendía, X. P., Zambrano, L. C., & Insuasty, E. A. (2018). The development of research competences of teachers in training in the context of pedagogical practice. FOLIOS, (47), 179-195. https://revistas.pedagogica.edu.co/index.php/RF/article/view/7405

Calatayud, V. G., García, M. R., & Espinosa, M. P. P. (2018). Training in digital skills for university students based on the DigComp model. Edutec. Electronic Journal of Educational Technology, (65), 1-15 (391).

Flores Flores, H., Ramos Cevallos, M. P., Huachua Pallin, J. V., Villarroel Nuñez, L. M., & Reyes Blácido, I. (2022). Remote teaching and achievement of competencies in university students in the context of covid-19. University and Society, 14(3), 417-427. Retrieved from https://rus.ucf.edu.cu/index.php/rus/article/view/2860

Garcés, J., & Mora, C. (2020). Learning strategies to mitigate student dropout in the context of COVID-19. SUMMA. Disciplinary Journal in Economic and Social Sciences, 2(E), 49-55. https://aunarcali.edu.co/revistas/index.php/RDCES/article/view/155

García, F. S., Tejeda, R., & Torres, R. M. (2014). The formation of scientific and research skills for environmental sustainability in the agricultural engineer. Electronic Journal Training and Educational Quality (REFCalE), 2(3), 59-70. https://observatorioturisticobahia.uleam.edu.ec/index.php/refcale/article/view/71

Garcia, F. S., Suarez, C. (2015). The formation of scientific research competences in the Agricultural Engineering Career of the Lay University "Eloy Alfaro" of Manabí, Pedernales campus. Journal of University and Society, 7(2), 115-120. http://scielo.sld.cu/scielo.php?pid=S2218-36202015000100017&script=sci_arttext

Gisbert, M., Espuny, C., & González, J. (2011). INCOTIC. A tool for the diagnostic @utoevaluación of digital competence in the university. Faculty, Journal of Curriculum and Teacher Education, 15(1), 76-89. https://redined.educacion.gob.es/xmlui/handle/11162/80705

Gutiérrez Rojas, I. R., Peralta Benítez, H., & Fuentes González, H. C. (2019). Integration of research and teaching in medical universities. Medical Education, 20(1), 49-54. https://www.sciencedirect.com/science/article/pii/S1575181318302444

Humphries, G., Nordvik, R., Manifavas, H., Cobley, P., & Sorell, M. (2021). Law enforcement educational challenges for mobile forensics. Forensic Science International: Digital Investigation, 38, 301129. https://www.sciencedirect.com/science/article/pii/S2666281721000275

7290

Lay N., Ramírez, J., & Parra, M. (2019). Development of citizen behaviors in eighth grade students of an educational institution in Barranquilla. En R. López, Memorias del I Congreso Internacional en Educación e Innovación en Educación Superior. Caracas, Venezuela. UPEL Publishing Fund. https://www.researchgate.net/profile/Javier-Ramirez-28/publication/343615710_DESARROLLO_DE_CONDUCTAS_CIUDADANAS_EN_ESTUDIANTES_DEL_OCTAVO_GRADO_DE_UNA_INSTITUCION_EDUCATIVA_DE_BARRANQUILLA/links/5f348643458515b7291be091/DESARROLLO-DE-CONDUCTAS-CIUDADANAS-EN-ESTUDIANTES-DEL-OCTAVO-GRADO-DE-UNA-INSTITUCION-EDUCATIVA-DE-BARRANQUILLA.pd f

López-Gil, K. S., & García, M. L. S. (2020). Development of digital competences of university students in informal learning contexts. Education siglo XXI, 38(1 March-Ju), 53-78.

Martínez-Garcés, J., & Garcés-Fuenmayor, J. (2020). Teaching digital competences and the challenge of virtual education derived from covid-19. Education and Humanism, 22(39), 1-16. https://revistas.unisimon.edu.co/index.php/educacion/article/view/4114

Pavié, A. (2011). Teacher training: towards a definition of the concept of professional competence of teachers. Revista Electrónica Interuniversitaria de Formación del Profesorado, 14(1), 67-80. Retrieved from http://www.aufop.com/aufop/uploaded_files/articulos/1301587967.pdf

Pirela, A., González, N., Pérez, R., & Carrillo, J. (2019). Training in research skills in students of an inclusive university. SUMMA. Disciplinary Journal in Economic and Social Sciences, 1(1), 35-51. https://aunarcali.edu.co/revistas/index.php/RDCES/article/view/56

Rabanal, R., Huamán, C. R., Murga, N. L., & Chauca, P. (2020). Development of personal and social skills for the labor insertion of university graduates. Journal of Social Sciences (Ve), 26(2), 250-258. https://produccioncientificaluz.org/index.php/rcs/article/view/32438

Rodríguez, M. D. M., Méndez, V. G., & Martín, A. M. R. M. R. (2018). Information literacy and digital competence in teaching students. Faculty, Journal of Curriculum and Teacher Education, 22(3), 253-270.

Rubio, M. J., Torrado, M., Quirós, C., & Valls, R. (2018). Self-perception of research skills in students in the last year of pedagogy at the University of Barcelona to develop their undergraduate work. Revista Complutense de Educación, 29(2), 335-354. https://revistas.ucm.es/index.php/RCED/article/view/52443

Vallellano, M. D., & Rubio-Valdehita, S. (2018). Mental load and job satisfaction: a comparative study between social workers, social educators and primary school teachers. Anxiety and Stress, 24(2-3), 119-124. https://www.sciencedirect.com/science/article/abs/pii/S113479371830071X

Zhao, Y., Pinto Llorente, A. M., & Sánchez Gómez, M. C. (2021). Digital competence in higher education research: A systematic literature review. Computers & Education, 168, 104212. https://www.sciencedirect.com/science/article/pii/S0360131521000890

7291

Eur. Chem. Bull. 2023, 12 (Special Issue 5), 7282 – 7291