Digital skills in the performance

of primary level teachers in times of the Covid -19 pandemic

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Abstract

The article shows us the way that digital skills influence the performance of primary level teachers, considering these times of the Covid -19 pandemic, the article is relevant because it will provide pertinent knowledge and results that serve as, an alternative to the solution to the problem posed and its line of research Pedagogical. Innovations. The objective of this article is to recognize that digital skills should be part of teaching performance, establishing new forms of learning during and after the pandemic, based on the review of the scientific literature, this review Theoretical was carried out under the methodology of the systematic review based on the Prism strategy.

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Resumen

El artículo nos muestra la manera que las habilidades digitales influyen en el desempeño de los docentes del nivel primario, considerando estos tiempos de pandemia Covid -19, el artículo es pertinente porque aportará conocimiento y resultados relevantes que sirvan como alternativa a la solución al problema planteado y su línea de investigación Innovaciones pedagógicas. El objetivo de este artículo es reconocer que las habilidades digitales deben formar parte del desempeño docente, estableciendo nuevas formas de aprendizajes durante y después de la pandemia, a partir de la revisión de la literatura científica, esta revisión teórica se realizó bajo la metodología de la revisión sistemática con base en la estrategia Prisma.

Introduction

The educational needs of students who face the pandemic in face-to-face classrooms, have had to be changed from one moment to the next for virtual classrooms, since given the health safety of the educational community, we realize that in at present our reality for virtual teaching is not the most favorable to assume a purely virtual teaching. Given this overwhelming need for health care and the achievement of the skills to be developed in our children, there is great concern to be able to develop certain digital skills in teachers that will help strengthen the strategies[1].

UNESCO, being an organization that watches over education and culture above all, emphasizes the importance at all times of proposing good training, taking into account the preparation of the student for new knowledge in the society, that he has had to develop and the development of technology, including the novelties that are presented every day. Using intensively and in a prolonged way the use of technology in education in all that is the performance of capacities, the challenges exist not only for students but also for teachers in the acquisition and acceptance of information and communi-

cation technology. But, also adapting to using technological resources to effectively facilitate innovation and improvement in their educational development, these digital skills are essential in the new form of communication between teacher students and the community educational[2-4].

Technology, especially digital technology, has its primary consumers in children and young people. Throughout the world there are very extensive inquiries about the Internet, uses and preferences, and about computers; everything related to the use of the Internet in children, they analyze the benefits, disadvantages, opportunities and risks that the use opens. These opportunities for children can be given access to information, but to what extent does this information help or harm, contact with their peers and family and the completion of school tasks. Digital ability is a competence to be developed in students and for that, primary level teachers must be prepared for good guidance and become the facilitator of skills, so that students of all ages can benefit from the new events offered by technology for a more modern, effective, motivating and inclusive.[5 6 7]

The digital skills that are required these days are being developed with greater intensity in people, due to the reality that we are going through, at present, to advance in this context that we develop from the use of information and the use of technology. Being part of or having places of exchange that are based on ICT can be defined as perhaps reaching the concept of how to be integrated or also be part of the digital culture, in order to function in this technological aspect it is necessary and very important to have this type of skills being currently those that are being established due to the need of the digital world. Since digital skills are related to a set of knowledge, as know-how and knowledge about the concept of doing are already worked on, this knowledge is always related to the use of communication, management, process and related tools. to the creation of information[8-11].

On the performance in relation to the teacher, because it is a concept that is represented in the person about what he does and how he does it, it is considered according to different aspects that can be established within the educational aspect. When one begins to speak of the term of performance, it is done considering an action, which corresponds to the actions, practices that are carried out or are innate to the teaching profession. Teacher performance has been changed, at the different junctures of education according to the new reforms or laws established by the incoming governments in recent years and the introduction and designated assessments for students at their different levels for national and international recognition[12-14].

The research on digital skills in the performance of primary level teachers in times of the Covid -19 pandemic is relevant because it will provide appropriate knowledge and results that serve as an alternative to solving the problem posed and this topic corresponds to the Academic Program of Doctorate in Education and his line of research Pedagogical Innovations. Teacher performance, within the framework of good teacher performance, is a complex task that demands constant re-flection on their pedagogical performance included in the pedagogical principles that guide educational practice, within a dynamic of interaction between teachers, students, and the educational community, in acting pedagogical[15,16].

It is important because this study will contribute to the improvement of digital skills for primary education teachers, considering that these skills will contribute to the progress of students at this level. Developing skills in their learning, however, they depend on the use of digital skills that technological devices offer and the frequent use of these to carry out different activities[17].

It was justified theoretically since it will provide timely theories that are consistent with the research study on the definition of digital skills; the importance of the use of these skills and the educational process in the digital age, which will be used for the meaningful understanding and assimilation of theories that are related to the theme and problem of the study. Regarding the conception of the practical, alternatives will be provided that will be able to develop these skills in this new digital aera in the teacher, enabling an alternative for the development of digital skills, using strategies in teaching performance.

Methodology

A systematic review of the literature was carried out based on the adaptation of the Prisma methodology, the objective of this systematic review is to describe the digital skills in the performance of primary level teachers. To start the review, the information was searched in the Scielo digital repository for the search for scientific articles, using the keyword "Digital skills", filtering the results by type of literature (articles), obtaining 57 results, of which, 4 were filtered by subject area (teaching performance). The articles found were published between 2015 and 2020, in Spanish.

Also, the Dialnet database was reviewed, for the investigation of information, through the keywords "Digital skills" and "teaching performance", finding 17 results filtered by type of document (journal article), published between the years 2017 and 2021, in Spanish. In addition, the search continued, using the keywords "Skills" "performance" and "digital", resulting in 10 scientific articles, only in Spanish. Continuing with the search for sources, we used the Redalyc online library, where we typed the words "teaching performance with digital skills", obtaining as results, 4 articles in Spanish, between the years 2016 and 2020.

In the first selection phase, the following inclusion criteria were defined: original articles published in indexed scientific databases, in Spanish and English, published between 2015 and 2021, referring to the field of digital skills in teaching performance, which describe the concepts, importance. The second selection phase consisted in defining the following exclusion criteria: results that do not correspond to the type of literature of scientific articles and are not referred to the educational field.
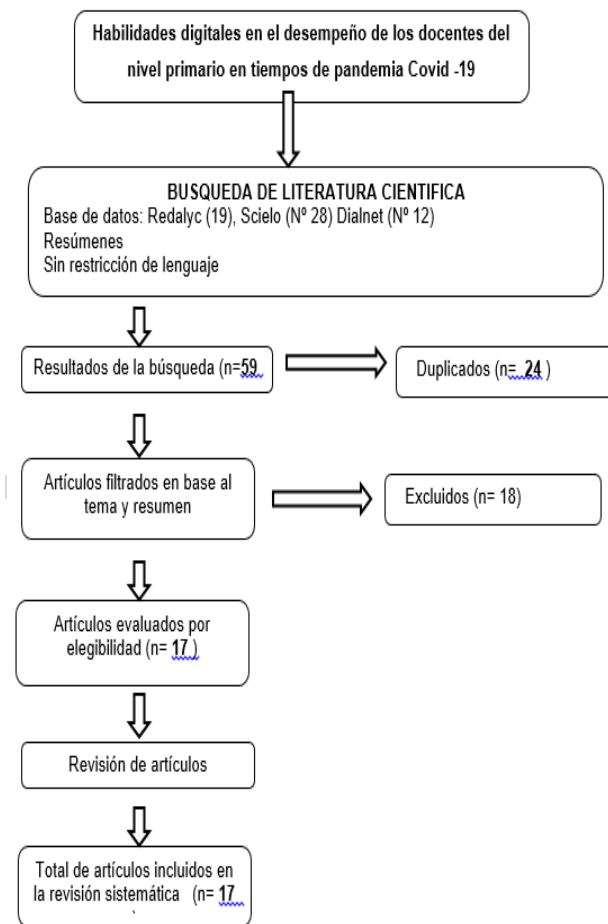
Results

In the quest for this research, the following results were obtained: 59 scientific articles located in the following journals such as: Redalyc 19 articles, Scielo 28; Dialnet 12; Searching for the variables, 34 were found for the Digital Skills variant and 25 for Teacher Performance. The years of publication of the articles found were between 2011 and 2020, in Spanish.

After the review of the first review filter, where duplicates were eliminated, 24 articles remained. Subsequently, to determine if they are related to the established objective, inclusion and exclusion criteria were applied, excluding 18 articles, finally leaving a total of 17 articles for the start of the systematic review as shown in the article selection flowchart. (Figure 1).

Figure 1. Article selection flowchart

Habilidades digitales en el desempeño de los docentes del nivel primario en tiempos de pandemia Covid -19

BUSQUEDA DE LITERATURA CIENTIFICA
Base de datos: Redalyc (19), Scielo (Nº 28) Dialnet (Nº 12)
Resúmenes
Sin restricción de lenguaje

Resultados de la búsqueda (n=59) → Duplicados (n= 24)

Artículos filtrados en base al tema y resumen → Excluidos (n= 18)

Artículos evaluados por elegibilidad (n= 17)

Revisión de artículos

Total de artículos incluidos en la revisión sistemática (n= 17)

The 17 scientific articles chosen, according to the database, were classified as follows: Scielo 65%, 11 articles; Dialnet 12%, 2 articles and Redalyc 23%, 4 articles.

Regarding the years in which the research articles considered in this systematic review have been published, it can be said that they are between 2015 and 2020. (Figure 2)

Figura 2. Artículos científicos por año de publicación.

Año de Publicación

Likewise, the study approach of the 17 selected scientific articles was considered. The 17 articles of this research are presented in the qualitative approach.

The continent and country in which the 17 selected articles were published should also be indicated. In Europe, we have Spain with 1 article: Central America, Cuba 3, South America, Peru with 4, Colombia 1 and Chile 3, North America, Mexico 5.

Each of these countries with their number of corresponding items will be detailed in figure 3.

Figure 3 Geographic location identified in scientific articles.		
Continente	País	Número de artículos
	Perú	4
América	Colombia	1
	México	5
	Chile	3
	Cuba	3
Europa	España	1

Concluding with the presentation of the characteristics of the selected sources, the scientific articles found with their respective database, year of publication, journal, title of the article, author, country, focus and language will be displayed in table N° 01, adding in total 17 articles.

Table N° 01: Scientific articles found

TABLA N° 01
ARTÍCULOS CIENTÍFICOS EMPLEADOS
Habilidades digitales en el desempeño de los docentes del nivel primario en tiempos de pandemia Covid -19

N°	Base de datos	Año de publicación	Revista	Título del artículo	Autor(es)	País	Enfoque de estudio	Idioma
1.	Dialnet	2017	Funcas Instituto Universitario de Lisboa	La medición y el mapeado de las habilidades digitales	Antino Mirko	España	Cualitativa	Español
2.	Redalyc	2018	Revista ujat	Habilidades digitales en docentes de escuelas primarias particulares del sur de Sonora, México	Armenta, Juan.	México	Cuantitativa	Español
3.	Scielo	2020	Revista de Psicología Educativa	Desarrollo de las competencias digitales de docentes a través de programas de intervención	Benavente-Vera, S. Flores Miriam, Coronado, Felipe, Núñez Luis	Perú	Cualitativa	Español
4.	Scielo	2015	Reduc.edu.cu	La habilidad digital recuperar información digital en la escuela primaria cubana	Carvajal Hernández, B., Legañoa Ferrá, M., & Oms Paneque, D.	Cuba	Cuantitativa	Español
5.	Scielo	2020	EDUMECENTRO	Percepción del alumno sobre el desempeño docente en la asignatura optativa Actividad Deportiva y Salud Bucal	Díaz L. y Valle R.	Cuba	Cualitativa	Español
6.	Scielo	2018	Propósitos y Representaciones	Evaluación del desempeño docente: Preparación para el aprendizaje de los estudiantes en el Marco de Buen Desempeño	Gálvez Suarez, Eric, & Milla Toro, Ricardo.	Perú	Cualitativa	Español
7.	Redalyc	2016	Apertura	Diagnóstico de las habilidades digitales y prácticas pedagógicas de los docentes en educación primaria en el marco del programa Mi Compu.MX	Glasserman Morales, Leonardo David y Manzano Torres, Juan Manuel	México	Cualitativa	Español
8.	Redalyc	2020	Ciencias de Actividad Física	Enseñanza virtual en educación física en primaria en México y la pandemia por COVID-19	Hall-López, J., & Ochoa-Martínez, P.	Chile	Cuantitativa	Español
9.	Scielo	2017	Investigación educativa	La construcción sociocultural de las habilidades digitales en el bachillerato: De la interacción cotidiana al estudio.	Hernández, J & Reséndiz	México	Cualitativa	Español
10.	Scielo	2019	Educación Médica Superior	La mejora del desempeño profesional pedagógico de los docentes para la evaluación formativa	Lake Queija, Mairim, Alea González, Mariana, & Rodríguez González, Jannette	Cuba	Cuantitativa	Español
11.	Scielo	2019	Propósitos y Representaciones	Habilidades digitales y educación.	Lévano-Francia, Luz, Sánchez Diaz, Sebastián, Guillén-Aparicio, Patricia, Tello-Cabello, Sara, Herrera-Paico, Nancy, & Collantes-Inga, Zoila.	Perú	Cualitativa	Español
12.	Scielo	2019	Formación Universitaria	Competencias Digitales en los Estudiantes del Grado de Maestro de Educación Primaria.	Pascual, M., Ortega, J., Pérez M & Fombona, J.	Chile	Cualitativa	Español
13.	Scielo	2020	Investigación Valdizana	La gestión pedagógica en la mejora del desempeño docente	Quispe-Pareja, M	Perú	Cualitativa	Español
14.	Redalyc	2017	Sophia	Desarrollo de habilidades digitales docentes para implementar ambientes virtuales de aprendizaje en la docencia universitaria	Rodríguez Espinosa, Holmes; Restrepo Betancur, Luis Fernando; Aranzazu Taborda, Diego	Colombia	Cuantitativa	Español
15.	Scielo	2020	Apertura	Elaboración de módulos audiovisuales para mejorar las habilidades digitales de estudiantes universitarios	Sandoval, V, Organista, J, López, M, & Reyes, S	México	Cualitativa	Español
16.	Dialnet	2018	Redipe	Habilidades digitales en la educación secundaria y su capacidad tecnológica instalada	Vera de la O, Francisco Javier, Sergio Jiménez Leticia Izquierdo, Hernández Gloria.	México	Cuantitativa	Español
17.	Scielo	2019	Formación Universitaria	Competencias Docentes y Transformaciones en la Educación en la Era Digital	Villarreal, S., García, J., Hernández, H. & Steffens, E	Chile	Cualitativa	Español

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On the concepts of digital skills

In the 17 articles analyzed, the authors have agreed on the concept of digital skills. The articles by Pérez (2017), Gonzales (2015), Armenta (2018) and Ulloa S (2020) argue that digital skills are a set of skills that facilitate organized teamwork, autonomous learning, communication, communication and critical thinking, these skills generate comprehensive development in people in the area of knowledge, generating their own knowledge and seeking their own learning strategies.

On the importance of digital skills

The authors Rodríguez (2016), Sandoval 2020), Vera de la O (2018), Hernández & Reséndiz (2017), Pascual (2019) Hall-López, J. (2020) maintain the importance of digital skills in teachers that make it easy to achieve the digital skills that are currently required for virtual sessions. These skills being so important to develop in the educational field, it has the reference that teachers must gain access to achieve these skills, currently teachers the more they acquire these skills, they will be able to develop the virtual sessions with better acceptance.

About teaching performance

The authors who refer to performance Benavente-Vera (2021), Gálvez and Milla (2018), Benavente (2021) Gálvez (2018) and Quispe-Pareja (2020) the authors refer to the logic provided by the concept of practice in the professional field in this regard to their professional work, the influence of the content system represented on the discipline that each teacher must teach. With respect to the importance of teaching performance, currently each one is responsible for developing their skills for the good performance of their teaching practice.

Discussion

After reviewing the articles, there are two authors who take digital skills into account for the development of teacher performance Pascual (2019) Glasserman (2016) the authors encourage the development of these skills in the performance of each teacher to strengthen the competencies that will help develop their virtual sessions. Both authors talk about performance but each one has their own position regarding performance, Pascual recommends developing the skills of teachers for the development of their performance, Glasserman focuses on the development of primary education, since it provides a greater incidence in children of this age. Taking into account that it is the age where they acquire their knowledge through play and recreational activities, recommending updating the development of these teaching skills.

Regarding Pascual, he emphasizes that teachers are the first to develop these skills in order to be able to guide students of these ages, considering that students are currently self-taught in digital skills, teachers must seek strategies with those that can be arranged to first develop digital skills in teachers and thus can improve their teaching performance in primary education.

With the systematic review of the selected articles, it can be known that it is very necessary for teachers to update themselves by developing different skills, especially digital ones, taking into account that due to the covid-19 pandemic, the deficiencies of the elementary school teachers regarding digital skills. Giving rise to the fact that teaching performance has been greatly affected by moving from face-to-face education to virtual education, currently students have already developed these digital skills, teachers must face that reality and join that daily work and thus strengthen their performance knowing and using digital resources.

Conclusions

The authors of the reviewed articles agree that the skills must be developed as early as possible at the corresponding ages, currently and now in times of pandemic, elementary school teachers and students must achieve their competencies by developing digital skills for themselves.

Regarding teaching performance, it is essential that each teacher internalize the way to reach their students through these skills, since primary level students, are the most knowledgeable, about this technology and teachers should not be left without developing these digital skills. To be able to guide their students and thus achieve learning in a more effective way according to the needs and interests.

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