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TEACHERS' DIGITAL COMPETENCE AND ATTENTION TO DIVERSITY DURING COVID-19. CASE STUDY

La competencia digital del profesorado y la atención a la diversidad durante la covid-19. Estudio de caso

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Abstract

Following the establishment of the state of alarm caused by COVID-19 and the consequent closure of educational centers nationwide, formal education has moved from a face-to-face teaching context to virtual learning environments in a matter of hours. Digital competence is a pending subject in teacher training. Despite the efforts made by educational administrations to digitize the teaching and learning process in formal educational environments and systems, its application in daily teaching routines is far from reality. Furthermore, it is necessary to take into account the diversity of the students and apply measures to reduce the inequalities of the students since the compensatory role of the school (as an institution) cannot be supplied through the virtualization of teaching.

Through this study, we are going to analyze the digital competence of teachers and the measures of attention to diversity during the closure of schools due to COVID-19, through a case study of the educational center, of religious ownership, "Colegio Sagrado Corazón de Jesús y María Inmaculada" of Miajadas (Cáceres). This study has allowed us to define the levels of digital competence of teachers during confinement, but it has

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also revealed the deficient specific and individualized treatment of students with special educational needs for support or educational reinforcement.

Keywords: COVID-19, Case of study, Digital literacy, Distance learning, Attention to diversity.

Resumen

Tras el establecimiento del estado de alarma provocado por la COVID-19 y, el consiguiente cierre de los centros educativos a nivel nacional, la educación formal se ha trasladado de un contexto de enseñanza presencial a entornos virtuales de aprendizaje en cuestión de horas. La competencia digital supone una asignatura pendiente en la formación del profesorado. A pesar de los esfuerzos puestos por las administraciones educativas en digitalizar el proceso de enseñanza y aprendizaje en los entornos y sistemas formales educativos, su aplicación en las rutinas cotidianas de enseñanza dista mucho de la realidad. Además, es necesario tener en cuenta la diversidad del alumnado y aplicar medidas de disminución de las desigualdades del alumnado, ya que el rol compensador de la escuela (como institución) no puede suplirse a través de la virtualización de la enseñanza.

A través de este estudio que presentamos, vamos a analizar la competencia digital de los docentes y las medidas de atención a la diversidad durante la situación de cierre de los centros educativos por la COVID-19, a través de un estudio de caso del centro educativo, de titularidad religiosa, “Colegio Sagrado Corazón de Jesús y María Inmaculada” de Miajadas (Cáceres). Este estudio nos ha permitido definir los niveles de competencia digital del profesorado durante el confinamiento, pero también ha puesto de manifiesto, el deficiente tratamiento específico e individualizado de los alumnos con necesidades educativas especiales de apoyo o refuerzo educativo.

Palabras clave: COVID-19, Estudio de caso, Alfabetización digital, Enseñanza a distancia, Atención a la diversidad.

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1. INTRODUCTION

Digital competence refers to the skills, abilities and knowledge that teachers have to carry out a training process, using technology from a critical, safe and pedagogical perspective (Pozo, López, Fernández and López, 2020).

Digital competence is a pending subject in teacher training. Despite the efforts made by educational administrations to digitize the teaching and learning process in formal educational environments and systems, its application in daily teaching routines is far from reality. Higher education plans and continuing teacher training in e-learning place great emphasis on the digitization of teaching and the use of ICT as a routine and continuous part of the education system, at all levels.

The Spanish educational situation is in an exceptional moment, due to the international crisis caused by COVID-19. On March 13, 2020, it was announced the closure of educational centers in the national territory and the beginning of the confinement of the Spanish population to their homes (BOE, 2020a; EFE, 2020). The centers find themselves in a supervening situation, for which they are not prepared: the virtualization of teaching for an undetermined duration (although it was first established for fifteen days).

At that moment, the educational administrations (both regional and the Ministry of Education and Vocational Training) begin a race against the clock to establish the rules of operation of the centers during the confinement of the Spanish school population, as well as the monitoring of classes through the media and devices of the educational centers (BOE, 2020b). Teachers are forced to change the classrooms for their domestic spaces where they can continue teaching the contents in a second trimester practically finished (whose evaluations were completed) and with the hope of returning to the classroom after the Easter holiday period.

A deployment of platforms (Juste, 2020) made their resources available to the educational community (free of charge in most cases) and teachers had to deploy their digital skills for an educational transformation for which they were not prepared, despite the attempt of digital transformation of the vast majority of centers, which was started, in initial or middle stages, or about to start.

Teachers and families learned or tried to learn to digitize their concept of education and began to establish channels and platforms where students could access the monitoring of their classes, delivery of work and direct communication with teachers. All this, added to the availability of personal technological resources for teachers (Cueto, 2020) and families, may lead to the establishment of a new categorization of students according to their access and educational monitoring resources, during the confinement and de-escalation of the social and educational crisis caused by SARS-CoV-2.

It is necessary to talk about two digital gaps, one produced by the lack of ICT resources in families and the other caused by the lack of individualized digital attention according to the personal characteristics of the students and the work overload of the teacher. This leads to a decrease in the compensatory function that allows students to find themselves in equal material conditions and cultural tools to face the teaching and learning process, while at the same time accompanying them during the educational process, providing emotional stability or providing them with the necessary resources to learn (Díez and Gajardo, 2020).

This new educational situation, highlighted by diverse opinions on the educational model and the digitalization of education in a hasty manner and without proper training for professionals and the educational community (Martin and Rogero, 2020), focuses efforts on the educational continuity of students, while the digital competencies of teachers are evaluated and worked on within the framework of the health and social situation established in the country and worldwide.

As we have indicated above, the exceptional teaching situation requires the development and implementation of knowledge related to didactic applications in digital environments acquired by teachers and the creation of specific didactics for each of the students. To this end, this study analyzes the digital competence of teachers through a case study of the religious school "Colegio Sagrado Corazón de Jesús y María Inmaculada" in Miajadas (Cáceres) and the personalization of these resources for students with special educational needs.

Contextual Framework

Information and Communication Technologies (ICT) are resources that contribute significantly to innovation and the development of new cultural and educational processes. Educational policies, from this paradigm, have focused on the implementation of programs and resources that facilitate the incorporation of ICT at all levels of the educational system to make students digitally literate, leading to large investments in equipment and infrastructure within educational centers, as well as the creation of training plans for teachers or the creation of repositories and addresses of digital materials (Roig and Flores, 2014).

This process of ICT integration within educational centers has been much slower than expected (compared to other administrations or social institutions) since there are three elements to take into account in the difficulties of digitization: the social environment, infrastructure and teachers. Regarding the latter, it is necessary to focus on the digital skills that teachers have and how these are developed within the educational environments.

The National Institute of Educational Technologies and Teacher Training, Spain, (INTEF) establishes a Common Framework of Teaching Digital Competence divided into 6 levels, 21 competencies and 5 areas that develop digital competence as a key competence that any person must have developed to be able to join adult life in a meaningful way (Moreno, Gabarda, & Rodríguez, 2018). For its development, at the national level, different plans have been established to promote Information and Communication Technologies (hereinafter, ICT), such as the Strategic Framework for Teacher Professional Development, the Digital Culture Plan at School or the European Union's DIGCOMP Project; all these plans and strategic frameworks being a reference space for the promotion of ICT management within the educational environment.

If we move to a more normative level in education, the Organic Law 2/2006, of May 3 on Education (BOE, 2006), amended by the sole article of the Organic Law 8/2013, of December 9, for the Improvement of Educational Quality (BOE, 2013) states, in its article 111bis, the need to work ICT in a transversal and complementary way, as well as its need to be a key competence to work throughout the schooling of students. To this end, and following the recommendations of the European Union (Valle and Manso, 2013), a great national effort has been made for the implementation of educational technology within the centers, as well as the incorporation of this within the educational projects to comply with the digital competence in an effective way.

Following Gabarda, Rodríguez and Moreno (2017), we find an evolution in the development of the application of technology in the educational field, where the emphasis on the establishment of reinforcement programs for ICT learning for teachers stands out. Ongoing training programs, such as those created by INTEF or by the Regional Teacher Training Centers, offer the opportunity to update digital competencies to teachers, with the aim of performing effectively based on the mobilization of technological, informational, axiological, pedagogical and communicative resources (Marqués, 2008).

Fuentes and López (2018) expose that every social individual is involved, obligatorily, to incorporate digital literacy to be able to perform fluently within the digital era. This implies an essential statement within the educational environment, since it is undeniable the inclusion of ICT in educational spaces since, in the search for quality and educational excellence, it is necessary the optimization of the teaching and learning process of the student and the implementation of varied pedagogical resources, being those of a technological nature the essential ones to use to achieve such an end.

In addition, the current situation has led us to rethink the current situation regarding the attention to student diversity and the measures to be taken, since we find in ICT a resource of resources that can help us to meet the diversity of individual needs of our students, both in the school and in an exceptional situation of distance learning.

The construction of the new educational scenario, in which the educational community is immersed, depends on the autonomy of the centers and the media-information literacy of the families (Trujillo, 2020). Factors such as Internet access in the family home, family competence (both digital and cultural) and the personal and family situation of the students must be taken into account. The families with the greatest needs lack the material, cultural, pedagogical, educational and even emotional conditions to be able to face the personal and family situation resulting from social and economic paralysis.

Díez and Gajardo (2020) point out that the social and socioeconomic gap suffered by a large part of the population is exacerbated by a situation of crisis and confinement. This social gap is compounded by the digital and technological gap, further increasing inequality. Despite the efforts in the provision of technological resources (by educational administrations and schools), digital illiteracy makes it necessary to rethink the current

teaching and learning processes, in favor of the search for methodologies that favor learning and take into account the degree of autonomy and development of students (Moreno, 2020).

The impact of the current educational situation derived from the social emergency due to COVID-19, will have an unequal effect among students, since academic support, technological resources, non-cognitive skills and cultural level is a handicap for the most disadvantaged students that is difficult to make up for through virtual training without advanced digital training by teachers. Adding the difficulties that some of our students, due to their special characteristics, have to follow the rhythm of the class, or follow their individualized work plan without the presence of their tutor or specialist teacher, relying only on technological resources as the only means of communication.

1.2. Characterization of the educational center

The educational center "Colegio Sagrado Corazón de Jesús y María Inmaculada" located in Miajadas (Cáceres), belongs to the Religious Congregation "Hijas de la Virgen de los Dolores" and was founded in the decade of the 20's, in their eagerness to bring education and culture to a land and a people submerged in poverty and poverty, although the social, economic and political reality of today is very different, the pedagogical philosophy of the center remains the same, putting at the center of its pedagogical action, attention to groups at risk of inclusion in the locality. The school has 487 students and 46 teachers.

Regarding the pedagogical line of the center, it has several national and international awards in search of quality and efficiency in the educational process, involving not only the community of teachers and students, but also the parents, who are in a permanent process of pedagogical training and updating.

The peculiar environment of Miajadeño yields the following data:

1. The rate of children and youth population is higher than the provincial average, so the number of school-age students reaches almost 2000 people throughout the municipality.
2. Population growth has been constant in recent years (with a slight decrease in 2011).
3. There is a homogeneous birth rate (around 90-100 children per year). This rate of births makes it necessary to maintain the units arranged with our center, since the public education system cannot cover the total number of places demanded.
4. In the population there is a wide demand for our center from parents.
5. Miajadas has a large immigrant population (over 18%) and other minorities such as gypsies (around 5% of the population) who also demand this type of education for their children.
6. At the economic level, the crisis has hit the construction sector especially hard, with the fall of some important companies and a notable increase in unemployment in this sector. Self-employed workers are the real economic engine of Miaja-das, although all sectors are directly or indirectly related to agriculture.

With respect to the educational levels of the school, the center has the stages of Infant Education, Primary Education and Compulsory Secondary Education (free of charge for the students) and Baccalaureate (stage that is subsidized for the families). The center has two lines (i.e., two classes per year) and a bilingual section in the Primary and Compulsory Secondary Education stages. The center has two different groups of students with special educational needs: students with educational compensation (including those coming from minorities and ethnic groups, which account for a total of 32 students) and students with specific educational support needs (which account for a total of 11 students, of which 4 have Attention Deficit Hyperactivity Disorder and 9 have special educational needs).

2. OBJECTIVES

The main objective of this case study is to know the self-perception of the teachers' digital competence and their previous preparation for working in digitalized and shared environments with the students at the "Sacred Heart of Jesus and Mary Immaculate" Educational Center. In order to achieve the main objective, we have set the following objectives:

1. To establish the level of digital competence of teachers before and after the closure of schools due to the health emergency caused by COVID-19.
2. To determine the level of teacher training in the use of ICT and the technological resources available at the center.
3. Determine the use of ICT resources, in times of pandemic, according to the individual characteristics of students.

METHODOLOGY

Currently, there are different research methods, but "qualitative research has reached a high degree of development, methodological and scientific strength that is not exclusive to quantitative research" (Erazo 2011; cited in Hernando and Zwerg-Villegas, 2012). For the following work, we have considered it appropriate to use qualitative research because, as Flick (2012) states, using this type of methods can help us to describe the different perspectives and subjective and social meanings of the participants, as well as to analyze the interactions and interrelationships that occur between them and their environment. More specifically, the case study, since it is considered a process of systematic and in-depth investigation of unique educational entities (Bisquerra, 2009), which describes a very particular reality and the processes that take place in this context, in order to try to understand a very diverse and heterogeneous reality. The above reflection allows us to interpret the results, based on the assessment and meanings of the actors consulted, on the level of teaching digital competence and its application during the COVID-19 health emergency situation in educational environments.

As it is indicated above, the context of the study corresponds to a private-controlled center located in the town of Miajadas (Cáceres). The study was carried out with the

entire teaching staff, i.e., the selected sample consisted of 46 teachers covering all the educational stages taught at the center. Of the 100% of the people selected, 34.7% were men and 65.3% were women. The average age is 45.8 years and the average number of years of teaching experience is 13.2 years. All the teachers were selected because the center had some well differentiated characteristics: it includes all the compulsory educational stages, has a history and experience in dealing with diversity and all the teachers, in one way or another, are involved in the dynamics of inclusion supported by continuous training. Moreover, as it is a charter school, teacher mobility is very low.

The information was collected through a semi-structured interview, addressed to each member of the teaching staff and that lasted approximately 30 minutes. The questionnaire has a total of 20 questions, of which 8 are closed-ended and 12 are open-ended. The closed questions collect the personal and professional information of the teaching staff (gender, years of teaching experience or educational stage in which they teach, among others) and the open questions collect information on the level of digital competence of the teaching staff, previous teaching training in the use of ICT and the use of these for individualized attention to students during the closing of the center. For this purpose, the open-ended questions were divided into three main groups (referring to the objectives of this study). The first group of questions, on the level of digital competence of teachers, includes questions such as "Describe your previous training in the use of ICT", "What digital tools or platforms do you use in your face-to-face classes" or "What ICT training have you received during the school closure? Have you applied what you have learned to your online classes?". The second group of questions, on teacher training in the use of ICTs, includes questions such as "Does the educational center have sufficient technological resources for the integration of ICTs in the classroom? In what aspects should it improve?" or "How do you consider the integration of ICTs in the general dynamics of the center has been during the closing of the center? Has it been used correctly in its integration and training of the educational community?". The third group of questions, on the use of ICT for the individualized attention of the general student body and students with special educational needs, includes questions such as "Do you consider that the individual needs of the student body have been attended to during the school closure? What difficulties do you think that have been encountered in attending to the students during this period of time? Do you think that a better use of ICT could help to improve the educational attention of students with special learning needs? How could this be done? The questionnaire offered a lot of information, but only the information referring to the object of the research was chosen.

The center's management team thought it would be convenient for all teachers to participate in the survey in order to include the results in the course report and in the improvement proposals requested by the Regional Educational Administration of Extremadura. The Teams platform (provided by the University of Castilla la Mancha) was used and each of the videoconferences was recorded. Once the recordings were finished, they were viewed by the three researchers individually, who had previously established the following semantic categories: Perception of ICT use - Training needs

for the improvement of digital teaching competence - Difficulty of ICT use in extraordinary learning situations.

The responses were transcribed respecting the discourse of the actors. A systematic comparative analysis of the records was carried out, which allowed delimiting the dimensions that demarcated the analysis, extracting the labels used for the research and which were most repeated in the interviews and converting, through triangulation, the unified results into categories that allowed establishing the level of digital competence according to the descriptors of the levels exposed by the National Institute of Educational Technologies and Teacher Training and its didactics to each of the study subjects. This led to: a) coding all the information; b) grouping quantitative data into percentages and frequencies; c) creating tables to synthesize the information; d) interpreting the data in the context in which they were collected; e) applying Fisher's test to determine whether the qualitative variables were related by means of a frequency test and therefore had strength of association; f) drawing conclusions; and d) sharing these conclusions with the center under study.

4. RESULTS

One of the important aspects of this case study is the use of ICT within the educational environment by teachers. For this purpose, two moments in the use of resources were established: the use of ICT in a generalized manner when students were attending classes in person, before the pandemic, and the application of general resources during the suspension of classes in person, carrying out synchronous and anachronistic activities (videoconferences, tutorials, sending of materials, etc.).

During face-to-face teaching at the educational centers, the results of the interviews conducted show that the use of ICT at the center is to support the pedagogical models of the teaching staff. Its main use is for the use of the digital book or the projection of videos complementary to the relevant explanation. The interactive whiteboard (PDI) is used as a video and animation projector and the use of specialized tools is limited to its use at specific moments and for a short period of time (for example, as an evaluation tool for a learning session). Teachers show a low level of integration of their digital skills within the general dynamics of the classroom, since they do not highlight a creation of resources or a complete integration within the didactic programming, i.e., it is used as a complementary resource, giving priority to traditional resources, such as the book or the chalkboard. On the part of the center, the use of technologies is promoted, but the use is linked to pilot experiences (the duration of which has been interrupted due to the closing of the center).

If we move to the use of ICT during the period of virtualization of teaching, we find an increase in the digital competencies of teachers, motivated by the need to transfer the teaching and learning process to a virtual environment in an indeterminate manner. Teachers report an increase in the use of technological resources and virtual teaching environments. The use of communication platforms has been promoted (at the

discretion of each teacher's knowledge of which platform to use) and the presence of the center in digital environments has been enhanced (through the creation of web pages, personalized domains and common communication environments for teachers and students). This has favored the interest in the correct use of digital tools by the teaching staff, through internal training (both at the center level and by the educational administrations), adapted to the competence level of each teacher and with the ultimate goal of achieving an extrapolation to their teaching and classroom needs.

From the data obtained in the interviews with the teachers of the educational center, we found that the teaching staff has a low previous training in the use of ICT, since the integration of these in the teaching and learning sessions is minimal or support to the teaching expository strategies, corresponding to this basic training at an A1/A2 level (INTEF, 2017). After analyzing the results of the questions on the improvement in the use of ICT during the closure of the educational center, it is worth noting an improvement in the digital competence of teachers (skills, abilities and knowledge they have to carry out a training process, using technology) after the confinement situation, placing it at a competence level of handling level A2/B1 (INTEF, 2017). If we focus on the areas that make up the *Digital Teaching Competence*, the results by area would be the following:

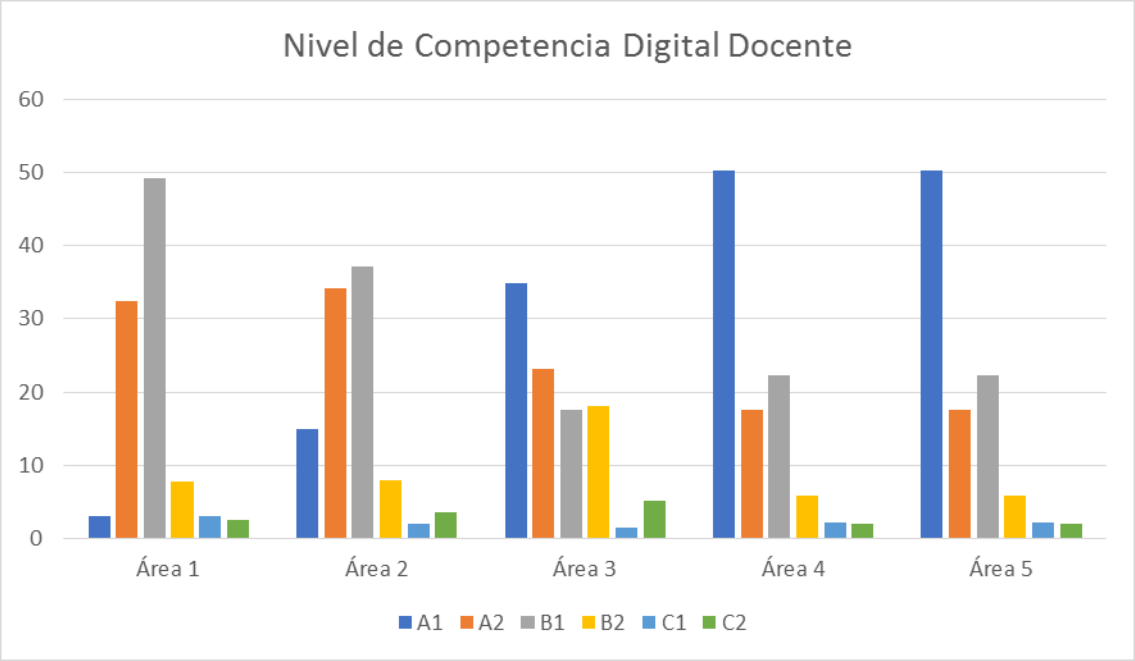

Figure 1. *Level of Digital Teaching Competence.*
Source*: Own elaboration.*

Analyzing the data presented in the graph above, we find that the level of Digital Teaching Competence is around an A2/B1 level. Following the descriptors of the levels exposed by the National Institute of Educational Technologies and Teacher Training (INTEF, 2017), we find that the teaching staff has a basic or intermediate level of

competence, with a certain level of autonomy in solving simple problems and in need of occasional help and appropriate support for problem solving, being able to develop their digital competence appropriately.

We found a teaching staff with a user level of digital competence, which uses Information and Communication Technologies for daily issues and direct communication (e-mail, teaching management platform, etc.), but which does not have the appropriate strategies for a process of virtualization of teaching in an exceptional educational environment. The results of the interviews show a deficient ICT training by teachers, despite the training opportunities offered by the Teacher Training Center of Extremadura and by the school itself.

By specific areas of Digital Teaching Competence, we obtain the following data:

1. Area 1. Information and information literacy: The teaching staff presents an optimal level in the use of the basic aspects of computer management and the use of digital resources (highlighting the use of ICT resources at user level), as well as the use of storage and retrieval spaces for information, data and digital content for personal and professional use.
2. Area 2. Communication and collaboration. In this area, the development of digital competence is framed in the personal use of technology to share and interact, highlighting the use of platforms and virtual spaces frequently used by teachers (Rayuela platform, YouTube, messaging services, etc.). Regarding the management of digital identity and netiquette, the level of competence is lower than the overall computation of the area.
3. Area 3. Creation of digital content. The results of the proficiency level in this area are lower than in the two previous areas. The creation of digital content and its legal framework (copyright, licenses, permissions, programming, etc.) is limited, since training in these aspects is limited to the use of certain platforms focused on specific moments in the classroom (evaluation and creation of presentations), although work in this area has increased during the period of virtual teaching by COVID-19.
4. Area 4. Security. The teaching team presents a very low level of acquisition in this area, since the knowledge on the protection of equipment and devices is limited to a user level use, presenting great deficiencies in the protection of personal data and digital identity.
5. Area 5. Problem solving. The resolution of problems derived from the use of technologies in the classroom (and at a personal level) is very limited, since the use of devices and programs or platforms is routine and the center has an area or department in charge of identifying and resolving these problems, available to the teaching staff.

This assessment of the competence level of the teaching staff by areas is qualified by a slight increase in digital skills and abilities. The closure of the school has enhanced the technological skills and knowledge of the teaching staff, and the use of ICTs has increased during this period of time.

Following this assessment, we can determine that the level of digital competence of the teachers of the school under study is closer to an intermediate level, since the situation that has arisen has been positive for the improvement of professional competence.

Regarding objective two of the study, the initial training of teachers with respect to ICT is not sufficient for a correct development of competencies and their direct application within the classroom dynamics. In addition to this remarkable aspect (where we have to highlight that we find teachers with an average teaching experience of 13.2 years), it is necessary to point out that the center did not have the necessary resources per classroom and children to be able to make a complete application of ICT within the didactic sessions and therefore develop the digital competence of the educational community.

The general opinion of the teaching staff is that the technological resources are not updated in all classrooms, in addition to the technical problems (connectivity and updating of resources) that may occur during the school year. The center is starting to have a plan to update resources and digitalize the educational environment, which has been urgently increased in its implementation time due to the closure of the center by COVID-19 (through the provision of e-mail accounts to teachers, training in the G-Suite applications package, use of communication platforms with teachers and families, etc.).

Motivation towards the improvement of teachers' individual digital competencies has increased during this period of time, with an increase in the use of specific applications, mentioned above, that complement the teaching process, as well as accreditation in the use of educational platforms or the request for specialized training in certain fields of educational technologies.

The research indicates that the use of ICT has experienced a conceptual and procedural increase in the teaching program of teachers in this time of pandemic. Being integrated in virtual sessions and making them an almost daily use. It is worth appreciating how students, in general terms and without forgetting the digital divide seen in some families, have adapted quickly to technological changes, a fact that is evident in the direct contact they have had throughout the on-line classes.

Finally, after the case study of the educational center, the level of digital competence of teachers is conditioned by various factors such as age, initial teacher training and the availability of classroom resources. In the specific case of this school, we have been able to see how the competence level has improved (from a basic level to a user level) during the confinement and the period of online teaching. This improvement should not be something isolated, but a constant that helps the center's digitalization plan and the teachers' own personal and professional development, since the improvement of professional competences is a short and medium term educational improvement.

In relation to the third objective, it has been observed that, to a large extent, no intense work has been done with students with Special Educational Needs (SEN), who

show greater difficulties than the rest of their classmates to develop the expected learning at their level and who require specialized support, but who should enjoy, like the rest, a variety of technological resources in the educational environment according to their curricular level and that offer them the opportunity of an innovative, motivating and individualized teaching-learning process.

As we have been able to verify in their answers, there are numerous obstacles or difficulties that have prevented this individualized curricular development. Among them we can highlight: overwhelmed by the situation, novelty of a completely unknown environment, overload of work with the regular group, very high ratios, lack of resources, diversity of family situations and the need, in some cases, of the help of an adult from the family environment, reorganization of program elements and significant curricular adaptations, lack of training and little confidence that the use of ICT resources would work with this type of students without the presence of the tutor.

All these aspects led to a more generalized performance of the group of students, providing individual work plans for those students with special needs, but without being able to do more in terms of individualized methodology in the use of ICT.

5. CONCLUSIONS

The incorporation of ICTs interrelating contents, pedagogies and technologies has to be achieved through the digital improvement of teachers. As we have seen in the case study, the health emergency situation has had a positive impact on improving the digital competence of teachers, since the transformation of face-to-face teaching to virtual environments has helped to put into practice strategies, resources and teaching skills that are not put into practice in the daily reality of the classroom. Although it is true that there are many aspects that have not been worked on effectively enough, such as attention to students with special educational needs.

The use of educational technology and its inclusion in today's society as a backbone, has led to changes in the teaching of teachers, has introduced new resources and emerging methodologies in schools and schools have to facilitate the digital literacy of students (whose significance goes beyond the school environment) through the digital literacy of teachers (Girón-Escudero, Cózar-Gutierrez and González-Calero, 2019), which is why it is necessary to develop it correctly through the training of teachers in their initial training and through continuous and ongoing training.

This need for training and development of digital competence in teachers is given by a correct use of technology (in an effective and appropriate manner), which allows using it in the classroom dynamics through its adaptation to students and the learning that they have to achieve.

The situation caused by COVID-19, has highlighted the shortcomings of our educational system in terms of the correct use of Information and Communication Technologies, since educational improvement (which is sought from the regulatory and legal development, as well as from the educational centers), has to start from a change

of direction of the pedagogical models and has to be a common goal of the entire educational community. To this end, the inclusion of technology in the general dynamics of the centers cannot be relegated to the background and must be taken into account as a main element in the teaching and learning process, since it plays an important role in the daily life of students (which we can consider as digital natives) and the school must exercise its educational role through the teaching of the correct use of technological tools through their use.

For this reason, digital competence in teaching is an essential requirement for achieving excellence in the educational field. ICT in the classroom has become a tool whose use is conditioned by the teacher's training profile (Pozo, López, Fernández and López, 2020). COVID-19 has helped us to identify deficits in the attitude and technological training of teachers and has highlighted the need to update educational practices, since it has been shown that their inefficient use in centers (and the lack of acquisition of technological resources for students by the competent administrations) favors the digital divide and the categorization of students into those who have resources and training and those who do not.

This premise allows us, once again, to highlight the need for teacher updating and for technological tools in educational centers to be integrated into the methodological corpus and pedagogical proposals, where the teacher is considered as a guide and orientor of the students' digital competence learning and a correct inclusion of emerging technologies in educational centers can be carried out (López, Pozo, Fuentes, & Romero, 2019), since they allow fostering and improving constructivist meaningful learning, motivation and academic results.

On the other hand, authors such as Sánchez, Romero and Harari, cited by Sánchez (2019) state that ICTs favor the teaching and learning process of ACNEAES students (Alumnado Con Necesidad Específica de Apoyo Educativo) considering it as a good curricular and methodological element that facilitates the learning of students in general and, in particular, of those with special educational needs.

Several studies (Arnaiz, de Haro and Maldonado, 2019) have shown how ICT can become a decisive element to improve the quality of life of these people with some kind of disability, being in some cases, one of the few options to access the school curriculum, enable communication and facilitate their social integration. For this reason, these resources are increasingly being implemented in educational plans, in order to provide a more individualized response to the needs of this group (Easton, cited in Hernández and Sosa, 2018).

However, they should not be considered as just another tool, but should be part of the curricular programming, which implies innovating in methodologies and didactic strategies. To this end, tasks should be sought that, adapted to the particular characteristics of each individual, allow improvements in their own development and in the use of digital tools. In this way, the teaching-learning process in students with disabilities will be more encouraged by the use of these digital media.

There are many studies that have opted for the incorporation of ICT in this situation, considering them as a support tool for both teachers and students with SEN. There are many web pages or applications specially designed for these students, guaranteeing that they are based on usability and accessibility techniques. Usability refers to the ability of a program to be understood, learned and used by any user under specific conditions; and accessibility refers to the degree to which all people can visit and use web pages and applications (Renilla, Pedrero and Sanchez, 2010).

And why should these resources have been used as support or reinforcement for children with ASDD? First of all, because digital media are very attractive and fun for those who use them. As if it were an almost innate ability, this group seems to have a natural affinity with the use of technological devices. Secondly, some research cited in García, Garrote and Jiménez (2016) have pointed out that ICTs offer this student body a controlled environment, with predictable situations and perfect and understandable indications. In addition, they will give the option of repeating those activities or actions that they find most pleasurable as many times as they deem appropriate; something that is necessary for these children.

On the other hand, we can indicate that ICTs stand out for their adaptability. In this sense, they adapt to the non-presential teaching-learning process, making possible any curricular adaptation that these students may require, based on the activities proposed to the group-class. Likewise, it can be said that ICTs adapt to the characteristics of each person, favoring different learning rhythms and styles and providing greater individualization.

Following along the same line, there are studies (Cabero and Ruiz-Palmero 2018) that highlight that, although ICTs allow the development of autonomous learning, they also offer the possibility of performing learning tasks jointly through videoconferences, chat, virtual classes. Thus, ICTs would be a means for the development of emotional and social skills, which would make it possible for them to communicate and interact with their peers at a distance (Corp, 2020).

Therefore, education and schools, both face-to-face and online, should be a place of protection and reduction of social inequalities, where students find normality, stability and hope (UNICEF, 2020). The education system must offer a system of face-to-face protection for all students, but inclusive principles and measures to address diversity cannot be relegated to the background in exceptional situations of social emergency (such as the one caused by COVID-19).

We do not want to close this research without exposing a personal reflection that we researchers have reached: Perhaps we have missed the opportunity, during these months of virtual communication, to explore the thousands of resources, programs, games, methods and good practices that can help the teacher in the didactic accompaniment of the potential of students with special educational needs. Perhaps we have missed the opportunity to prove that ICT resources can not only be a good ally in the process but also a good tool for the empowerment of students. Perhaps the

opportunity to close the learning circle between the student, the teacher and the family supported by a technological device has been lost. But... there is still time.

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