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Article

Teacher learning management with the use of Extraordinary Educational Services ICTs

Gestión del aprendizaje del docente con el uso de las TIC de los Servicios Educativos Extraordinarios

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Abstract

The objective of the research was the analysis of teachers' learning management in the use of Information and Communication Technology Tools (ICT). Specifically, it was developed the knowledge of the current situation regarding the use of ICT, the description of each of these and the characterization of the learning management processes in teachers. It was a descriptive, non-experimental and cross-sectional research. The results were obtained from a survey made up of 22 items addressed to teachers of students with incomplete schooling at the "Amelia Gallegos Díaz" Educational Unit, which led to the conclusion that technological tools are an important part of learning management, in addition to

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promoting its development and contributing to the students' evaluation process. It is recommended to promote the systematic use of technological tools for the benefit of education for young people and adults attending this educational establishment.

Keywords: Learning management; ICT; technological tools; teaching method.

Resumen

La investigación tuvo como objetivo el análisis de la gestión del aprendizaje del docente en el uso de Herramientas Tecnológicas de la Información y Comunicación (TIC). De manera específica se desarrolló el conocimiento de la situación actual referente al uso de las TIC, la descripción de cada una de estas y la caracterización de los procesos de la gestión del aprendizaje en los docentes. Fue una investigación descriptiva, no experimental y transversal. Los resultados se obtuvieron a partir de una encuesta conformada por 22 ítems dirigida a los docentes de estudiantes con escolaridad inconclusa de la Unidad Educativa “Amelia Gallegos Díaz”, con la cual se llegó a la conclusión de que las herramientas tecnológicas forman parte importante de la gestión del aprendizaje, además de que impulsan su desarrollo y contribuyen al proceso de evaluación de los estudiantes. Se recomienda promover el uso sistemático de herramientas tecnológicas en beneficio de la educación para jóvenes y adultos que asisten a este establecimiento educativo.

Palabras clave: Gestión del aprendizaje; TIC; herramientas tecnológicas; método de enseñanza.

Introduction

Learning management is characterized by being in constant evolution where new processes are not only nurtured by the learning experiences acquired in the classroom (Turnbull et al., 2020)but also from other environments linked to Information and Communication Technologies (ICT) and cultural industries (Han, 2020). This definition of management implies a new way of taking on the existing realities of teaching (Byram, 2020)The definition of management implies a new way of assuming the existing realities of teaching (Byram, 2020), since students must be able to develop communicative skills to explain and solve problems, understand the nature of these in order to participate in a democratic society and be

trained for the work of creating a social life (Ministry of Education of Ecuador, 2025). (Ministry of Education of Ecuador, 2022).

From the perspective of the Ministry of Education, teachers must keep abreast of developments and research related to their field of work, while building and applying scientific knowledge to issues directly related to their professional environment and practice. Engaging with students through persuasive communication. (Alawamleh et al., 2020)provide proactive classroom management (Nagro et al., 2019), use innovative teaching strategies (Bernad-Cavero & Llevot-Calvet, 2018) and represent the necessary elements of educational activities for the benefit of society are essential aspects of learning management.

On the other hand, the teacher can use different current didactic resources to deliver lessons inside and outside the classroom (Sukmawati & Nensia, 2019)among which the following can be highlighted: digital whiteboards, social networks, virtual classrooms, audio and video editors, live chats, technological applications, among others. (Rojas-Segovia & Romero-Varela, 2019).. All these resources require virtual platforms where their function is to allow the creation and management of complete courses for the Internet without requiring in-depth programming knowledge. Structurally, they have different modules that allow responding to the management needs of educational centers.

The literature has shown that there is a significant relationship between school technology availability and the use of ICT by teachers according to the elements that make up teachers' digital competencies (Mancinas, 2020). Other studies have shown that there is a direct and positive relationship between the use of the virtual classroom and competency-based learning in high school students (Vargas, 2020).. Results of Orosco et al. (2021)showed that students present a high level of knowledge in areas of digital competencies, concluding that more than 50% of digital competencies prevail at an expected level of achievement. The technological tool most used by students is the computer and they are familiar with this type of technologies, mainly for the management and manipulation of information (Salazar, 2020).

The objective of this article was to analyze the learning management of the teachers of the "Amelia Gallegos Díaz" Educational Unit of Riobamba in relation to the use of ICT, so that the acquisition of student learning is really significant. Evidently, there is a significant digital gap in the education of the current teacher, so it is necessary

to know their capabilities and limitations, so that the applied technologies and educational projects are reflected, to see if these respond and adapt to the demands of students with unfinished schooling of Extraordinary Educational Services for Youth and Adults.

Materials and methods

The research was carried out at the "Amelia Gallegos Díaz" Educational Unit, in the Veloz parish of the Riobamba canton, province of Chimborazo. It offers an early education level, basic education and high school. It is a public school, located in the urban area of the parish of the Sierra school system, with a classroom and morning schedule. It currently has 67 teachers and 1505 active students.

The research approach was quantitative, with a field research type, descriptive in scope, and a non-experimental cross-sectional design. The study population consisted of 20 teachers of the Educational Unit, who work with students with incomplete schooling of the Extraordinary Educational Services for Youth and Adults. The survey technique and the questionnaire instrument were applied, which was applied in a face-to-face modality within the facilities of the Institution. Questions related to learning management and the application of ICT were evaluated.

Once the results of those consulted were obtained, it was possible to describe the use of technological tools by teachers towards students and thus learn about their strengths and weaknesses. For the processing of the results obtained, a detailed description of the information collected in the instruments is made. Specifically, the Excel program was used for the organization, tabulation and calculations of frequencies and percentages for the data obtained from the instrument answered by the teachers.

In the present study, the explicit authorization of the authorities of the institution, teachers and students of the Amelia Gallegos Díaz Educational Unit of the city of Riobamba was respected. All participants were informed in writing of the most relevant aspects of the research by means of the Informed Consent document, which was submitted to the corresponding authority for the pertinent purposes.

Results

The following are the results of the surveys conducted with 130 third-year students

Table 1 shows the results obtained from the surveys conducted with the teachers of the "Amelia Gallegos Díaz" Educational Unit in the Veloz parish of the Riobamba canton. To the first question, 35% of the total respondents indicated that they always select technological resources according to the reality of the students, 20% indicated that almost always, 35% indicated sometimes and only 10% answered that almost never. The second question showed that 50% of the teachers surveyed plan their learning activities according to the technological resources available to the students, while 15% indicated that they consider the availability of technological resources almost always, 30% do it sometimes and only 5% never. Regarding the third question, it could be observed that 55% of the respondents always organize the educational resources provided by the Ministry of Education for the extraordinary education model, followed by 20% who indicated that they almost always do so; 15% indicated that they do so sometimes and the remaining 10% never do so. In response to the fourth question, it was found that 35% always use ICT tools to stimulate student learning through the activities they organize, 15% indicated that they do so almost always, 45% sometimes and only 5% mentioned that they never do so.

With regard to question five, they reflected that 40% always use the tools suggested by MINEDUC for their planned classroom activities, 30% indicated that they do so almost always, 10% indicated that they do so only sometimes, and finally 20% responded that they never use these tools. To question six, 75% of the teachers responded that they always conduct their activities using the model for people with incomplete schooling, while the remaining 25% responded that they almost always do so. In question seven, the results indicated that 60% of the respondents always seek to determine the cognitive progress of the students in order to condition the PCA, 25% said almost always, 5% responded that sometimes, another 5% said almost never, and the remaining 5% indicated that they never determine such cognitive progress. The results of the eighth question showed that 30% of the respondents always evaluate with study guides for students with incomplete schooling online, 20% said that they evaluate in this way almost always, while 40% indicated that sometimes and the remaining 10% indicated that they do not evaluate their students using this method.

In response to the ninth question, 30% of the respondents answered that they always interact with students using Information and Communication Technologies, while 20% indicated that they do so almost always. Forty-five percent indicated that they use ICTs in their interaction with students sometimes and the remaining 5% indicated that they interact with their students using ICTs almost never. In response to the tenth question, 45% of the respondents indicated that they always use ICT tools to guide their students' meaningful learning, 30% said sometimes, 20% indicated that they do it almost always, and the remaining 5% answered never. The results of question 11 showed that 40% always allow students to contribute ideas in collaborative work groups with ICT tools, 30% said they do it almost always, 25% said they do it sometimes, and 5% said never. For question 12, 60% said that the teachers always establish collaborative spaces for students to build their learning. Fifteen percent mentioned that they do it almost always and 25% indicated that they establish such spaces sometimes.

Table 1. *Surveys conducted with teachers of the "Amelia Gallegos Díaz" Educational Unit.*

1. Do you select the technological resources in your planning according to the reality of your students?

Alternatives	Frequency	Percentage (%)
Always (S)	7	35
Almost always (CS)	4	20
Sometimes (AV)	7	35
Almost never (CN)	2	10
Never (N)	0	0

2. Do you plan learning activities based on the technological resources available to students?

Alternatives	Frequency	Percentage (%)
S	10	50
CS	3	15

3. Do you organize the educational resources that the Ministry of Education has provided for the extraordinary education model on its website?

Alternatives	Frequency	Percentage (%)
S	11	55
CS	4	20
AV	3	15
CN	0	0
N	2	10

4. Do you organize activities making use of ICT tools to stimulate your students' learning?

Alternatives	Frequency	Percentage (%)
S	35	35
CS	3	15

AV	6	30
CN	0	0
N	1	5

AV	9	45
CN	0	0
N	1	5

42. **6. Do you direct the activities against the model of 3. education for people with incomplete schooling?**

43. **5. Do you establish the activities with the use of the technological tools provided by the Ministry of Education (Teams, Office, among others)?**

4.	**Alternatives**	**5.**	**Frequency**	**6.**	**Percentage (%)**
12.	S	13.	8	14.	40
18.	CS	19.	6	20.	30
24.	AV	25.	2	26.	10
30.	CN	31.	0	32.	0
36.	N	37.	4	38.	20
44.	S	45.	15	46.	75
51.	CS	52.	5	53.	25
57.	AV	58.	0	59.	0
63.	CN	64.	0	65.	0
69.	N	70.	0	71.	0

47. 8. Do you evaluate student performance with online study guides for students with incomplete schooling?

7. Does it determine the cognitive progress of the students, with the purpose of conditioning the PCA?

9.	**Alternatives**	**10.**	**Frequency**	**11.**	**Percentage (%)**
15.	S	16.	12	17.	60
21.	CS	22.	5	23.	25
27.	AV	28.	1	29.	5
33.	CN	34.	1	35.	5
39.	N	40.	1	41.	5
48.	S	49.	6	50.	30
54.	CS	55.	4	56.	20
60.	AV	61.	8	62.	40
66.	CN	67.	0	68.	0
72.	N	73.	2	74.	10

10. Do you guide your students' meaningful learning by9. Do you interact with students using Information and Communication Technologies (ICT)?

Alternatives	Frequency	Percentage (%)
S	6	30
CS	4	20
AV	9	45
CN	1	5
N	0	0
S	9	45
CS	4	20
AV	6	30
CN	0	0
N	1	5

12. Do you establish collaborative spaces for students to**11. Does it allow students to contribute ideas in collaborative work groups for the various learning projects using ICT tools?**

Alternatives	Frequency	Percentage (%)
S	8	40
CS	6	30
AV	5	25
CN	0	0
N	1	5
S	12	60
CS	3	15
AV	5	25
CN	0	0
N	0	0

construct their learning?

Discussion

Information and Communication Technology tools are part of the learning management elements of each of the surveyed teachers of the Amelia Gallegos Díaz Educational Unit, which are implemented as part of the didactic resources. The learning management process by the teachers of the Amelia Gallegos Díaz Educational Unit is transversalized by the use of technological tools and consequently this management process has become more fluid and effective.

Limitations were identified in terms of digital competencies, which can be improved as the technological process advances and equipment renewal is achieved. The lack of knowledge, use and application of ICT in the teaching and learning process is not adequately developed due to the socioeconomic problems of the educational environment, which directly affects the teaching and learning process. The use of ICT tools by teachers in different areas of learning management revealed that they propose collaborative work groups for learning projects using ICT tools.

This paper suggests promoting the creation of mechanisms for teachers of Unfinished Schooling at the Amelia Gallegos Díaz Educational Unit to promote the use of Information and Communication Technology tools, since, based on the findings of this study, the integration of ICT in the management of teacher learning is still in process.

In addition, it is recommended to motivate the production of educational didactic material by teachers, in pedagogical projects, creating activities that make possible the total integration of ICT tools in the learning management process, since they can be used to transmit fully elaborated information, demanding answers from the students that in turn will be reinforced with the traditional styles and, of course, the knowledge imparted.

It is important to generate plans, projects or workshops that are directed to the educational authorities of the central government, in order to implement adequate pedagogical tools that allow a technological evolution in the teachers and that will be replicated in the students. It is essential to keep the institution at the forefront in terms of technology so that it can constantly provide teacher training processes, and in turn also train students periodically.

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