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About the Traditional Digital Lyteracy in the University Context*

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Abstract: Digital competence is a set of cognitive skills that develop actions in an environment mediated by technology. These skills also improve both the teaching and learning aspect, e.g., basic knowledge of computer systems, basic equipment operation, use of word processing, surfing the Internet, using email, and creation and capture of images, processing of multimedia documents and basic spreadsheet knowledge (Gonzalez, 1999; Marques, 2008; Gallego et al., 2010). The European Parliament (2006) emphasizes the confident and critical use of ICT for work, leisure, and communication through computers. Alternatively, the use ICTs is also defined (Benvenuto, 2003; González, 2008; Jaramillo & Ruiz, 2009) as electronic tools that help store, process, retrieve transmit and present data, information and content. his presentation is the product of research titled HUM 1907 “Digital Skills in Graduate students in the UMNG” registered in the research group “Culture of Human Development”, conducted by the author of this article and financed by the Vice Presidency of Research of the Military University Nueva Granada, Colombia.

Key words: ICT, high education, technologies, MOOC

1. Introduction

The XXI century society is characterized by changes generated by the use of ICT, which have become essential tools for humans. However, there is a difference between two groups of people that need to be brought to attention as called by Prensky (2010), digital natives and digital immigrants. The former, also known as Generation N (Net) or Generation D (digital), are characterized by the way they use and process information, build knowledge, use of technology, multitasking, their preference of graphics over text, the use of social, work and academic networks. Given the changes that are occurring at different educational levels, it is inevitable the connection of education with new technologies.

Meanwhile, the digital immigrants use ICT in their everyday professional and academic life requiring instructional processes. Nevertheless, for this group, it will be easier to read print content than preferring its digital counterpart and will often require calling the recipient of an email to confirm whether it was received. The purpose, quality and pedagogical renovation of education in the XXI century is centered in the importance of a culture of research, in order to achieve a critical and innovative thinking and sustainable human development. It

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will also foster the strengthening of ICT pedagogical processes as tools for learning, creativity, scientific, technological, and cultural advances that allow human development and active participation in the knowledge society.

2. Propose

Some projects have previously studied this topic such as Diagnostic of information competencies of students of VII semester Information Science Major-Library of the Pontificia Universidad Javeriana. Electronic resource, Pontificia Universidad Javeriana (Valderrama, Mesa -Dir., 2006).

Given the changes that are occurring at different educational levels, it is inevitable the connection of education with new technologies. It is also fundamental the implementation of these technologies in environments where there is production of training resources and in human resources departments of many companies. It is required the presence, both in schools and in businesses, of professionals that combine their training in the dual perspective as experts in knowledge and training resources.

Simultaneously, in Colombia various programs have been implemented by the Ministry of Education and the Ministry of ICT by creating networks and raising projects regarding the use of technology in the classroom, in order to train teachers, researchers, and the community in the socialization of educational practices mediated by ICT. A remarkable example of this is The Educational Innovation Project with the Use of New Technologies in Higher Education and RENATA.

Competency, as proposed in 2007 by Mulder, Weigel and Collins (cited by Tobon) (2010) is the “ability to perform and use knowledge, skills and attitudes that are integrated into the professional repertoire of the individual” invites teachers and students to integrate knowledge and technological use in their practice.

Faced with the few studies on digital competence in postgraduate studies, several questions have been previously raised but are still under investigation and analysis: What are the digital skills in using ICT postgraduate students and the relative factors related to instrumental skills in the use of ICT, as well as methodological-didactic skills and cognitive skills in the use of ICT?

This first step is the basis for the development of the current research, which enables to offer elements to diagnose the digital competencies of graduate students, and building on this information, suggest counseling and mentoring processes along with designing courses that promote the development of these skills.

The overall objective of the current research is to design a model document that generates guidelines for digital competence training to students at the Masters level of the UMNG. The aforementioned task will be based on the characterization of the graduate level learners that use ICT as a tool for their studies. The next step is to identify strategies used by these graduate students in handling and search of information through information and communications technology. An additional goal is to identify significant relationships between digital competencies in the use of ICT in graduate students and associated variables such as age, grade, and social stratum and ultimately formulate the guidelines to strengthen digital competencies in students of Masters courses of UMNG.

3. Methodology

This project is seen under a descriptive and mixed cross-cutting perspective where information regarding the concept and digital competencies in graduate students UMNG will be collected. Thus, the analysis will focus on

the description of competencies in educational technology by students themselves. The first aim is to identify strengths and abilities to be improved with regards to learning and working in the digital age, student learning, professional growth and digital citizenship. Secondly, the study will analyze the component related to creativity and innovation, technological operations, digital citizenship, critical thinking, research, information, communication and collaboration. Quantitative data will provide information on each of these aspects and the information gathered in the qualitative phase will serve to obtain an integrated view to facilitate the proposal of a model.

Population and sample: For this study, postgraduate students will be addressed associated by their level of proficiency when handling computers and technology. Also, it is important to bear in mind that these programs not only require training on the inclusion of educational technologies but also shape professionals whose object is the same. Beyond the operational and instrumental knowledge, the research intends to study the development of competencies, seen as the integration of technology into being, knowing and doing in the student.

Techniques for gathering information: In the quantitative phase, a questionnaire for students will collect information on aspects of educational technology as outlined above. This questionnaire will be adjusted from the proposal made by ISTE, taking into account vital aspects such as the context. This form will be sent by electronically.

• Collection of Information. Various techniques will be used for recollection: Interviews with teachers who handle subjects that require the use of technologies, surveys of graduate students along with documental consultation.

INSTRUMENTS:

Table 1. Development of literature review and data collection.

• Literature review.

•Interview Design.

• Conducting interviews and polls with teachers and graduate students.

Table 2. Other Instruments

• The questionnaires prepared for the interviews and surveys are semi-structured and contain both open and closed questions. The interview will be recorded and then transcribed to ensure a better analysis of the categories. The development of the questionnaire for the survey will be framed within the standards of the Ministry of National Education digital competencies.

• Study of documents consulted.

For the qualitative phase, semi -structured interviews will be performed separately on groups of students or the study will open spaces for conducting focus groups. This instrument is intended to gather information about the needs and expectations of training in educational technology. This information complements the collection in the quantitative phase and allows the construction of a proposed model for training in digital competencies. Collection instruments will be submitted to facial validation and content through an initial application (pilot).

4. Findings and Discussion

In universities, students are still trained to acquire knowledge with a mechanistic approach, which has not been possible to remove from the majority of teachers. The teacher should take advantage of information technology and communication as these technologies will eventually facilitate the education process. Universities

are not designed to accommodate the ways society is creating and disseminating information. In this way, the Internet presents a valuable set of communication possibilities such as email, video conferencing, web services for communities in the global context. With the addition of multimedia environments, the role of the teacher as a mere transmitter of knowledge morphs to a facilitator in organizing academic learning activities, allowing students greater autonomy and responsibility in the search for information. For this reason, the teacher looks at the moral and ethical aspect to select, design, and produce educational material, the application of ICT strengthens the acquisition of significant knowledge (Cardeño, 2011).

The use of ICT in modern times is leading to significant changes in our way of life. It raises the concept of a knowledge society or learning or information society. The development of this culture and the dissemination of technologies have become a challenge for education but has also brought up a valuable opportunity. The desire worldwide is to improve the quality and effectiveness of student learning and nations are committed to ICT as a means to achieve it. The adoption of ICT has led to the transformation of education in at least three very important ways: first, precedent curricular reforms have originated "inside" the system in an attempt by educators to gather their own content. ICT, however, have emerged “outside” of the world of education, however, there are compelling arguments for their adoption in the field of education. Secondly, it is observed that oftentimes students are more interested than their teachers in these technologies. Finally, the expansion of ICT has profound implications in the philosophy and organization of educational environments (OECD, 2002).

5. Conclusion

This new environment allows us to think about the setting in which the digital student is performing. Profited by the use of ICT that is now taking into account the following three conjoined environments that show the learning experience as a whole: life in the education center and life outside it, being both scenarios heavily embedded by communication technology resources. Notwithstanding, it is important to clarify that learning is not by any means, limited to the use of ICT but also these media provide new links and opportunities. One of the most common misinterpretation observed is the belief that ICT would diminish the importance of teachers and that the reality “within” the school is substantially different. Educational institutions are still a key element for students and teachers still remain the main point of contact. However, within the education center, integration with ICT implies the need for some transformation in the organization and vast changes in the role of teachers.

It is also fundamental the implementation of these technologies in environments where there is production of training resources and in human resources departments of companies. It is required the presence, both in schools and in businesses, of professionals that combine their training in the dual perspective as experts in knowledge and training resources. Currently, teachers have many options to update themselves in the use of tools, apps, and software for teaching. For example MOOC (Massive Open Online Course) are free platforms, where they can take a course and download resources, videos, simulations, games, articles etc. or they can incentive their students to sign up in this platform to learn simultaneously. Coursera, Edx, Upcity, Khan, Udacity, Miriada-X are some the most important MOOC.

On the other hand, when people use technology they learn faster and easier, but the problem is that some teachers are not trained enough to use the ICT. They believe that, the more students use technology the less they learn. They considered that any machine can replace the roll of teachers.

As I see it, it is necessary for teachers to develop digital competence. In spite of generation N and Y students

are characterized by their skilled use the technology for to learn. Although, we must not forget that the principal key factor is the knowledge and its use in order to solve the real problems of the world. Technology is only an additional tool.

To sum up, more and more people are using technology for updating themselves. For this reason it is necessary especially for teachers to develop digital competence for implementing their classes, nevertheless technology might not the most important factor in the education, but it can help like tool for incentive the knowledge.

To do this, it examines some of the policies and procedures used by selected universities in the UK. It also analyses the interview responses given by students who attended three universities — Birkbeck University of London, London South Bank University and London Metropolitan University. These students experienced mitigating circumstances that affected their educational progress. There is need for follow-up research to address issues such as deferrals, appeals, medical certificates, self-certification, confidentiality and how and when to submit claims.

Generally, the findings from an analysis of the HEIs' rules and regulations show that HEIs in the UK are committed to recognizing mitigating circumstances and dealing with them in a manner that will not make students miss out on their education by becoming drop outs. The findings from the analysis of the students' responses have shown that mitigating circumstances are real and that they should be addressed in a way that benefits students' educational progress. They also show that HEIs should pay closer attention to basic human rights principles in helping students to progress.

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