Snackson in a classroom of technical education an application of Mobile Learning

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***Abstract*—New technologies have led to changes in society so great that educational processes have not been exempt from depth. New models such as mLearning training and content creation as Microlearning, are the result of putting technology at the service of education. The following article is to show the application of these concepts through the learning platform, Snackson, which seeks to expand the educational process at any time and place.**

1. Introduction

The great promoter of technology and the expansion of knowledge across the globe is the Internet. Its creation has meant that the creation and transmission of knowledge stop making so located in research centers, but its network character allows shareable immediately by anyone and, simultaneously, to the same person contribute to improve it.

Logically, this capability was introduced in the educational process, because it transformed the way we store and transmit knowledge. Naturally, the popularity of personal computers brought the internet and thereby opening a window called World Wide Web (hereafter WWW) where the user can access, create and collaborate on knowledge of universe. This whole process was introduced in schools as they were incorporating adequate infrastructure and teachers began to change their role as consumers of educational materials creators thereof, to improve student learning.

We are currently facing a new step in this process. Our students do not consume information by means of personal computers but their main way of communication with the WWW is the smartphone. Therefore, it makes no sense not to use this medium as a means of learning.

This article aims to summarize research work in a vocational training center, with extensive experience in ICT based training through devices such as personal computers and laptops, using a commercial tool company Snackson which until now has been used for non-contact training in companies. Training for companies have commonalities and differences with formal training, so it is interesting to know the results and how they should adapt the particular tool and educational methodology applied to formal education.

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2. Theoretical fundament

2.0.1. The use of mobile devices in educational programs?. The origin of Monlau Study Center is a vocational training center, more than 25 years ago, so when it was proposed to incorporate ICT in classrooms, ten years ago, it was decided by the management that studies FP were best suited because of its maturity and prestige within the center, and has justified that a professional technician future have a high level of computer skills. The technological part of the ICT incorporation was that each student of Vocational Training and Computer Services, had to bring their own laptop. The center developed a fiber optic network, high-speed, Internet-controlled surveillance systems, Intranet made in Microsoft Share Point, workspace with students and teachers, and classrooms equipped with projector and whiteboard. In the educational part, he trained teachers in the use of ICT tools and the Intranet environment and an educational methodology based on learning from the realization by the student of the largest number of activities and practices developed on your computer. In the upper echelons of Informatics, due to technical level of equipment, the center considered to provide a fixed equipment in the classroom, but to apply the same methodology as in the other studies.

Ten years later, the figures for the use of smartphones or smart phones by students and debate that is occurring in society about its restriction or use, has led the center to perform experiments on the educational use of them. Following the philosophy implemented ten years ago, these studies are based on belief in a clear methodological basis, in this case the Mobile Learning as a foundation on which to base the experiences, some contents suitable developed specifically for these devices and are not a translation of the education via web to education via mobile, and an educational platform to merge all and allow an attractive user experience, which in this case is Snackson.

2.1. MobileLearning or m-learning

We can define mobile learning as educational modality that facilitates the construction of knowledge, problem solving learning and development of various skills autonomously and ubiquitous thanks to the mediation of portable mobile devices (Brazuelo F., Gallego d. 2010) Other researchers

(360 e-learning group, quoted by Quinn, 2007) define more from the process and mention that the m-learning is any activity that allows individuals be more productive when they consume, interact with or create information, mediated through a compact digital device, the individual carries steadily, which has a reliable connectivity and fits in your pocket. Either definitions are valid in this context in which the study is conducted. What characterizes the mobile device as an educational tool?

The mobile device has a number of features as it is integrated into the daily life of the student, incorporating elements such as geolocation, sound recording and image, ability to share information, and may use the clock either at home, on the subway, in the car, in a park,

Once we are clear about the methodological basis and the right to work device, the following is to define the content to use, and make sure they are not a translation of the traditional web content to a mobile device. The contents in a virtual environment are the backbone of learning seeking promoted in an educational situation. While in the e-learning the organization of content can be done in many ways: projects, units, themes, definitions, m-learning is more promotes atomised content organization, similar to when working with learning objects (Ramirez, 2007) and is recommended topics sectioning content in small units, with full information.

Design activities in a learning environment is also linked to the educational ideas for design. While in the e-learning more reading activities, text and graphics are to describe the instructions in the m- earning they are used more voice, graphics and animations for instructions and further promotes learning field (Sharma and Kitchens, 2004, cited and modified by Laouris and Eteokleous, 2005). But it should be noted that the design of activities is not only in the form of ”delivery activities” (if voice is used instead of text, for example), but on learning that wants to be achieved, the content to be transmit and strategy to be used. A part of the rules defined in the design activities are reflected in the Microlearning.

2.2. MicroLearning

The Microlearning is an evolution of micromedia (Twitter, Youtube, etc ...), that is, a set of applications focused on transmitting specific information. This information we define as microcontent. This microcontent can adapt the contents at a rate appropriate work for the student, agile, modular and fast.

The Micro Learning is defined as a blended learning strategy, consisting of two components:

- The demand for information now and in a particular place (just in time)
- The compressed information (byte size learning)

The distribution of this content is from information in different formats (video, animations, graphics, computer graphics, hyperlinks, short texts ...), which makes the Microlearning enhances multiple intelligences. With Microlearning students take an informal learning and knowledge achieved microcontent format with fast transmission, through web services.

All this is achieved by identifying the needs of the target, creating attractive content on the topic and that build knowledge from them, and adapting to the rhythm of shipment via the recipients.

To facilitate this work, have a mobile web platform that allows the creation of microcontent easily and sent to users by using mobile, greatly facilitates the work to be done. So we chose Snackson, a company that develops an application that meets these requirements.

3. Snackson

Snackson is an application that articulates a very specific cuestiiones based on allowing reach a reflection, analysis and consolidation of the proposed learning concepts. With this web application and mobile temporary challenges, from one to eight weeks, allowing acquire knowledge naturally created. The challenge microcontent reach the mobile student in the time slot that the teacher has defined. The student receives the content and earn points by viewing or by correctly answering the questions that are posed. The duration of each challenge and is two to three minutes. Professor, via the web application receives the results of the challenges and can perform analysis of results. The work process and is the follow-up consists of:

1) The teacher designs a number of content format and creates Microlearning users (students) in the web application
2) The teacher creates a challenge. challenge is defined as a group of students who receive a certain number of microcontent in a defined time frame
3) When the user begins the challenge receives notice of the mobile application that tells you the beginning of it
4) The student interacts with the contents. The same data are stored on the server of the company Snackson
5) The consultation results challenge teacher, grades and user activity

4. Method of research

The steps followed to plan the research were as follows:

1) Selection of the subject Of all the subjects that make up the curriculum a subject that is representative of the training cycle and adaptable to Microlearning content is selected.
2) Sample Caracterstiques The study population are students in vocational education studying in the private center. This population is made up of:
    - Two Groups (1st and 2nd) Intermedate Level Administrative Management - 60 students

- Two Groups (1st and 2nd) Intermedate Level Microcomputer Systems and Networks - 60 students
- Two Groups (1 and 2) Higher Level Management Information Systems and Networks - 60 students
- Two Groups (1 and 2) Higher Level Multiplatform Application Development - 60 students
- A Group (1st) Higher Level Marketing and Advertising - 30 students
- Two Groups (1 and 2) Higher Level of Hospitality Management - 60 students The total number of students is three hundred and thirty.

The sample is formed by students of the two groups Intermediate Level Micro Systems and Informatics Networks. The sample is not probabilistic, since it is not a random sample. For this basic feature is not possible to calculate the sampling error of the values found in the sample and applying techniques of inferential statistics. The reason for selecting these groups as a sample and you already have experience working with ICT tools and are students who are clear that their future is to study computer science. Many times we can find freshmen who have selected these studies as an option but then do not continue and change specialty

As a summary of the procedure, to meet the targets two groups of students in vocational education Intermediate Computing they are studied. They will be introduced on the Mobile Learning used within their learning process and they raise the realization of a challenge as the concept defined in Snackson platform. This challenge will take place outside of class hours and content and duration shall be governed by the concepts of Microlearning. These contents will receive the student is your mobile device and will be discussed at the end of the Challenge class.

5. Research results

The nine selected contents are based on the theme of security content. A content of interest to students of computer science. These contents are divided into three categories in order to organize them better:

- Introduction to SSL Protocol
- Attacks SSL Protocol
- Web Application Security

The contents contain a hyperlink to a video www.intypedia.com page and a multiple choice question a single answer based on what displayed on the video.

Students will receive on their mobile device according to the microcontent the above criteria. Each time the student answers the question and the response to the score, as well as its position within the classification Challenge raised appear.

Once the challenge, the student will receive a link to a form of satisfaction performed on Google Forms in order to meet data considered interesting and their views on the challenge both from a standpoint of learning as application functionality .

After completing the two challenges, the results are as follows:

1) Challenge 1
   This challenge raised thirteen children, of these thirteen students accepted the challenge, therefore eleven were installed application. This eleven students participated in the challenge eight since the beginning to the end, so they finished making all microcontent presented.
   The best result that 56
2) Challenge 2
   This challenge was raised to eighteen students of these six students accepted the challenge, therefore eleven were installed application. This six students participated in the challenge three since the beginning to the end, so I ended doing all microcontent presented, while six others abandoned it to 22%, 56% and 67% of its realization.
   The best result that 85% of success in the questions asked and the result was but 42%.
3) Satisfactory Survey
   Out of a total of fourteen participating students ten they conducted the satisfaction survey. Numerical answers are scored with values between 1 (more negative) to 5 (most positive).
   Find attached the results of the questions:
   a) What degree of planning consider that the training has been received?
   b) What degree of satisfaction with the training of your teacher you have?
   c) Appreciates the degree of adaptation of the training course to circumstances
   d) The operating system with which you worked
   e) The browser that you have interacted
   f) Have you been able to work comfortably with own collaboration tool environment?
   g) The way the information is presented takes into account our learning style?
   h) The way the information is presented serves the principle of usability?
   i) The way the information is presented serves the principle of accessibility?
   j) The way the information is presented serves the principle of adaptability?
   k) Is the statement adequately contextualized so that arising from the application of knowledge and skills in similar situations?
   l) It is sufficiently explicit evaluation system? * Mark only one oval.
   m) Rate as has been the teaching methodology used in the process make it easier teaching and learning.
   n) Rate to what extent the navigation system is accessible and intuitive, allowing you

TABLE 1. COUNT OF ANSWERS

QUESTION	1	2	3	4	5
A			1	5	4
B				5	5
C				5	5
D	10				
E			4		6
F			1		9
G			1	1	8
H				5	5
I			1	5	4
J			4	2	4
K			2	4	4
L			1	2	7
M			1	3	6
N			3	1	6
O			1	3	6

to interact freely in the environment and produced materials and collected therein.

o) Rate to what extent the monitoring system allows reflect the whole process of teaching and learning.

6. Conclusion

The first conclusion reached is that with an index of real participation of ten students on a total of thirty-one, is that the study has been unattractive for the student. Factors that can be attributed to this are:

- The age of were between 16 and 19 students, an age in which they still see as strange an educational experience outside the classroom
- In the explanation of the importance of Mobile-Learning it has not been known to arouse the interest of the experience
- The selected platform has attracted interest in this age profile
- The selected contents were not attractive enough to maintain interest in the development of challenge
- It should have opted for a clear policy of prizes to the winners

For these reasons in future field work the following measures be taken:

- Select older age groups, such as students Higher Level, hoping that greater maturity involves greater involvement in the educational process
- They will be conducted during the course, small experiences with one content before a complete challenge, with the aim of preparing students to experience
- He will engage students in the selection of content. They should determine what subject should guide the challenge. Thus it increases motivation An associated classification will be introduced to some awards
- It will work in conjunction with Snackson development microcontent, seeking an increase in satisfying user experience from the beginning

The second conclusion reached is in the information gathering platform on the challenge. From the point of view of a teacher, the information obtained in excel format student work is reduced. It would be of great interest to:

- Determine all times of student access to the platform and its duration
- Determine the time of start and end at the completion of each microcontent
- Be able to view this information not only in numerical form but in graphical mode.

A section where students selecting all this information becomes available is proposed.

- Be able to modify microcontent if it has not been sent yet
- Be able to incorporate that work microcontent group: For example, each user receives a portion of microcontent and once we review all have to answer it. To this figure could enter a chat.

The final conclusion we get from the results of the survey is the high degree of satisfaction of students who have completed the challenge.

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