



ONLINE TOOLS IN THE HOSPITAL CLASSROOMS OF THE REGION OF MURCIA

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ABSTRACT

The investigation presented has a conclusion of improving the educative attention that children who find themselves in the care of hospital receive during considerable amount of time (and that during this period, they attend classes overseen by the hospital) through the use of ICT.

After undergoing the investigations and experiments related to the topic, we come to the conclusion that in the majority of cases, the playful use of ICT in the hospital classrooms dominates the educative.

Through this investigation, our intention is to form a module of curricular integration with ICT, through the creation of an online tool that categorizes diverse digital educational resources and tools with the use of Web 2.0, that can have educative applications in the hospital classroom. This educative experiment originates from the collaboration between investigators from different universities, experts in educative technology and the teaching staff from hospital classrooms in the region of Murcia.

In this assignment we present the actions taken, the phase in which right now we find the project and the actions yet to be completed.

Keyword: hospital classrooms, ICT, hospital, ALTER

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1 THE EDUCATIVE ATTENTION IN HOSPITALS

Hospital Pedagogy is the branch of education that means to help hospitalized children in developing and maintaining a normal and natural lifestyle as possible, taking on education while having an illness and being hospitalized. According to Lizasoáin (2011, 20), it is considered that the fundamental objective of Hospital Pedagogy is centered “in maintaining and avoiding the process of educative marginalization for children of a school age that find themselves admitted to hospital”. The author adds that this finality must be the same as general education: “the search for the person’s integral development, including an anomalous situation like being ill and hospitalized”. This branch of knowledge, was developed from the creation of hospital classrooms.

Nowadays we think of hospital classrooms as school units whose principal objective is the educative attention for young patients between three and sixteen years old or for patients attending obligatory education. Education professionals work in these classrooms at the disposition of the patients and their family members. For this, the administrations want to guarantee that the hospitalized student is able to continue with the educative process and improve his/her medical conditions whilst staying in hospital. The hospital classroom is an “open and flexible area, principally aware of the hospitalized child’s needs, where he/she may come and go freely, with the possibility of leaving the class depending on the requirement of attending his/her medication and care, and may later on re-join the group and tasks” (Guillén y Mejía, 2002, 18).

The main objectives for the hospital classroom are of a formative educational nature, not only to achieve pedagogic objectives established by the center of reference, but is also necessary to prepare the child to overcome different situations that could arise during his/her care. According to this principal, Violant, Molina and Pastor (2011) point out the following objectives: continue the established curriculum; facilitate the integration of the student in public/private schools at the end of their stay in the hospital, giving them a feeling of security and self-opinion; achieve that the student adequately values the different dimensions of his/her illness; provide communication with others; stimulate creativity; use ICT in favour of affective social and communicative development.

It is evident that these classes are peculiar because of where they are situated, keeping in mind that although they present similar characteristics, each one is different by numerous and variable functions, for example; the peculiarities of the hospital student body. (Serrano y Prendes, 2011).

1.1 ICT educative possibilities in the Hospital Classroom

We must not be surprised by the great quantity of possibilities that ICT can offer us in the general educative field if we keep in mind that society's progress depends on the quality of the educative system, being evident the relation between social and educative technology. Dertouzos (2000) reflects part of this idea affirming that "technology goes hand in hand with humanity and to carry out an authentic progress", both must be of equal stature.

The outstanding benefits that ICT can contribute towards education are: increase of quality, diversity, effectiveness of teaching systems; universal access to information; amplifying the possibilities of training; invaluable help in methodology (individual or group) that the student carries out activities by himself/herself; design a learning environment; favour creativity and motivation; personalize training; promote the cooperation between students, teachers and schools (Serrano y Prendes, 2011).

Besides from these benefits, Bartolomé (2004, 216) considers them "necessary in education because they are the necessary tools for intellectual work". On the other hand, we must keep in mind that the incorporation of technologies for the teaching-learning process is vital, "being that this new generation, process information in a different way than before, and for that we need to employ strategies that include ICT" (Aguiar, 2011, 104).

Nowadays ICT offers new possibilities of improvement for educative attention with hospitalized students, affecting diverse dimensions, such as: the process of teaching and learning; the conduct of the hospital classroom and between the different agents; psychological level; and the continuous training of the teaching staff. These can convert into an instrument of great utility to maintain that ill children and young adults may continue with a most normal lifestyle as possible. The greatest benefits that these technologies can have can increase in this peculiar environment, having diverse devices at hand that can access fun and educational content, besides providing the possibility to keep in daily contact with family members, friends and their own school. This way it is possible to weaken the feeling of separation and isolation one can suffer from being in such a place (Bienzle, 2008).

In a work from before (Serrano y Prendes, 2011) we lay out the possibilities of ICT in educative attention in the hospital classrooms, we shall not dwell any further on this point.

After review of the research and experiments of use with ICT in hospitalized classes, we conclude that the majority of the experiments from before (national and international) make use of ICT centred in two principal axes: on one hand, it is used for the use of gaming and

helping children escape the reality of their current situation and on the other, to enhance the communication between children in different classrooms. Some of these projects are: *mundo de estrella*, *Teleducación en aulas hospitalarias*, *aula en línea*, *Proyecto E-Hospital*, *The Starbright Foundation*, *Sterreking*, *Ciberhosto*, *SOLAS Project*, *Aít Eile Project*, *Proyecto Global Aulas Fundación Telefónica Hospitales...*

Therefore, after following approach to different jobs with ICT in hospitals, our proposal centres on the use of these for the supporting of teaching-learning of hospitalized students. This proposal gave place to the ALTER Project, which we will describe briefly below.

2 ALTER PROJECT

The ALTER Project. *Alternativas Telemáticas en Aulas Hospitalarias: una experiencia educativa* (www.um.es/aulahospitalarias.es), approved by Resolution on the 29th of December, 2009 and financed by the aid of projects for research in Humanities and Social Sciences formed in the Séneca Program 2009, it aims to improve the student's education and labour staff with the use of ICT. This project is lead by M^a. Paz Prendes and includes the participation of researchers from the Investigation of Educative Technology Group and the University Of Murcia, Researchers of the University of Santiago De Compostela and the University of the Illes Balears.

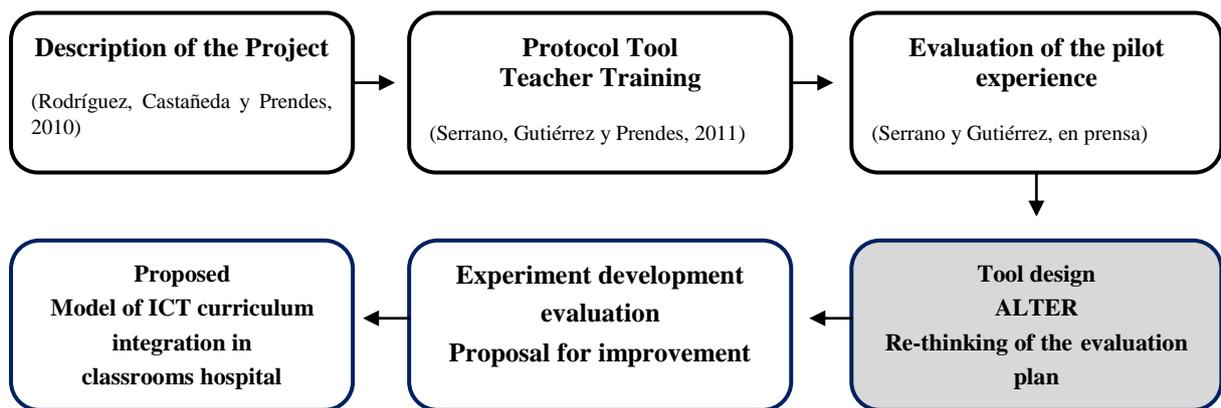
Besides these, support is also given from the Education Council, training and employment of the Region of Murcia and with the inestimable collaboration of the teaching staff in the hospitals; University hospital Virgin De La Arrixaca, University Hospital Santa Lucia, H.G.U. Reina Sofía and H.G.U. Morales Meseguer de la Región de Murcia. This investigation began in 2009 and will finalize and the end of 2012, after the extension by one year from the funding body.

2.1 Development of the project

In figure 1, we show the relation of jobs which are stretched out with actions related to the ALTER Project.

In turn, we intend to place the reader in the phase that is currently the Project.

Figure 1. Phase relation and publications of the ALTER Project



The shadowed box indicates the phase in we find the project while writing this assignment. After studying the possibilities of ICT in hospital classrooms, the particularities of the hospitalized student and the design of the protocol tool (network zone where activities categorized by areas, educative steps and methodology were found and in which used tools from Web 2.0) the pilot experiment was carried out as well as the evaluation, of which was carried out for 3 months in different hospitals. Then we obtained a set of conclusions (Serrano and Gutierrez, in press) based on the results of the evaluation of the experiment.

The approaches to improve were organized into three big blocks: Formative and informative actions, educative integration with ICT, improvement of protocol. In the last block of approaches, the team of research decided to substitute the Protocol tool for a new application called ALTER. Below, we will highlight the principal characteristics and its functional aspects.

2.2 ALTER tool

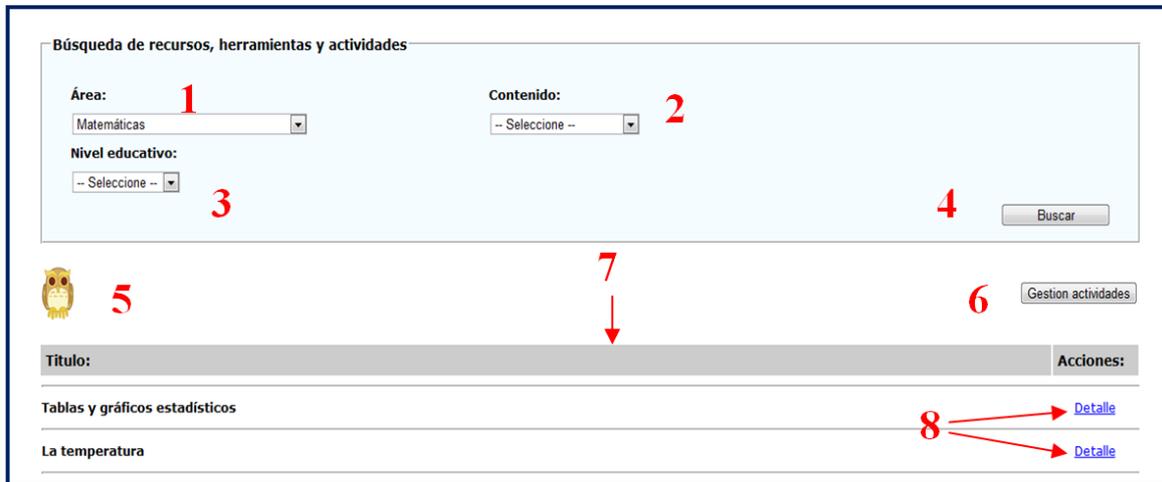
This application¹ is a data base integrated on the ALTER Project website that permits the hospital teachers to use and incorporate all digital educative resources online which are categorized by different criteria easily and freely without having to register. In addition to a selection of categorized Web 2.0 tools from a study (Torres, 2011) made under the ALTER Project.

In the first phase, the researchers of the Project, experts in Educative Technology, performed a selection of digital educational resources in a network under a set of criteria taking into account the needs and peculiarities of the hospital classrooms. Later teachers were able to remove or add new resources or Web 2.0 application tools.

Below we show aspects of functionality and structure of the application.

¹ On www.um.es/aulahospitalarias.es/. Is possible the application graphic design of application will be able to change

Figure 2 (screenshot of search option screen and search results)



1. Curricular area selection. On this panel one is able to select la online tools option, offering a category of tools in a content criteria search.
2. Depending on the chosen curriculum area, there is the possibility to make a more concrete search following the contents of this area, contents selected by the hospital class teachers keeping in mind the Primary and Secondary curriculum.
3. Education Level select.
4. Research search button.
5. From the owl icon we can access a list of recommendations of online tools created by the investigation team.
6. Button to edit data already entered in the ALTER application. With the aim to Project the integrity of the data base, to access this option, it is necessary to have an access key that only the investigators and participating teachers of the project know.
7. List of Educative digital resources online according to the search.
8. Access to the resource.

Figure 3 (screenshot of the search results)



1. Title and access to the educative digital resource online.
2. Description of the resource, source, licence...

3. Ability to display educational applications based on whether at the time of addition is incorporated.

2.3 Evaluation plan

The evaluation plan (Table 1) of experience is consists of eight instruments of information collection. It will be necessary three evaluation moments (initial-process-end) and the participants are: students of hospital classrooms; families; researchers and teachers hospital classroom.

Table 1: evaluation plan (In: number of instruments)

	Initial	Process	End
Teachers hospital classroom	In4		In5
Families			In8
Students of hospital classrooms	In1		In6
	In2		In7
Researchers		In3	

All instruments of evaluation were validated at PI2TE (Research International Panel in Education Technology) offered for EDUTECH Association². Numerous are advantages³ of this service for researcher, that receive the validation report after his/her request.

The researcher will be the responsible of management all instruments. Only participate the students whose hospitalization exceed fifteen days or they can use ALTER tool at least five sessions. The researcher will do observations (In3) about the use of ALTER tool of teachers and students.

At the end experience, we will publish all results on Webpage of ALTER Project⁴

3 CONCLUSION

Traditionally in hospital classrooms, activities of a playful nature have principally been carried out. However the tendency has changed substantially in the last decade, being that in this context the teachers come offering an education more bordered with the curriculum, keeping in mind the emotional and physical status and type of illness the child bears, we must remind ourselves that the child's health care comes strictly before the curricular education given in the classroom.

ICT offers us enormous possibilities for the educative attention in hospitalized classrooms, as we have briefed in this assignment. Emulating the tendency from before, these technologies

² <http://gte2.uib.es/panel/>

³ <http://gte2.uib.es/panel/content/ventajas>

⁴ <http://www.um.es/aulahospitalarias/resultados.html>

were used primarily for leisure, encouraging a multitude of experiments and investigation projects.

For this reason and by the work done in the framework of the Project and ALTER tool design, we aim to improve the educative attention of the hospitalized student thanks to the use of ICT, knowing that these technologies represent “a substantive contribution to the improvement of education and training, what is essential is that teachers using these technologies can depend on the well-equipped pedagogical models” (Escudero, 2009, 20). Therefore, our final objective is the creation of a curricular integration module of ICT in hospital classrooms, coinciding with Pío (2004) in which these technologies are going to “demand the creation of new learning modules, new ways and strategies of searching, organizing, processing and use of information” (62).

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