Multimedia educativa "Odontopediatría" Educational multimedia "Pediatric Dentistry"

Jasiel Pavón Leyva[1]*, Yadeleine Lee Garcés[2]

[1]*Center for Technological Applications for Sustainable Development (CATEDES), Guantanamo, Cuba*

[2]*University of Medical Sciences, Guantanamo, Cuba*

*Corresponding author: Jasiel Pavón Leyva, Center for Technological Applications for Sustainable Development (CATEDES), Guantanamo, Cuba

Abstract

An educational multimedia was made that is proposed as a means of teaching for the exercise in the classes of the subject Pediatric Dentistry of the Stingology career of the University of Medical Sciences of Guantanamo, which allows a better understanding of the contents related to the psychological management of children, prevention, traumatic injuries, endodontic treatment in temporary and permanent young teeth, surgical procedures and rehabilitation in the dental patient, periodontal disease and interceptive orthodontics in children and adolescents. The structure was formed as follows: it begins by showing the cover with a brief introduction of what is intended of the multimedia, then the contents to be addressed reflected in three questionnaire-like topics, with their e.g., ercicios, connected with hyperlinks between them and when the credits come out.

Keywords: Stomatology; pediatric dentist; educational multimedia

Introduction

The use of the computer is a topical topic in the educational field, both globally and in the country, in most cases it is considered as an ideal way to solve the learning problems presented by students, because it allows access to a considerable amount of information, presented in different formats (written, sound and visual) or the combination of these, as well as a valuable interactivity of the student with the medium, through the technological product [1] (Figure 1). Today there are dissimilar conditions to raise the quality of learning. Software and textbooks are used; but we need to know how to use these means and resources to achieve the development of the practical skills needed; teachers must better prepare based on their correct use [2] (Figure 2). The means of teaching are a fundamental factor in the preparation of future specialists in Stomatiology, for the development of knowledge, skills and skills. In the subject of Pediatric Dentistry students must appropriate many of them to achieve better learning [3]. To prepare in this regard,

they must have well-updated means of teaching depending on maintaining the oral health of patients (Figure 3). In the teaching-learning process promoted in the subject Odontopediatría, from the career of Stomatitology at the University of Medical Sciences of Guantánamo, difficulties in learning students on the contents related to the psychological management of the child, prevention, traumatic injuries, endodontic treatment in temporary and permanent young teeth, surgical procedures and rehabilitation in the dental and pediatric patient, periodontal disease and interceptive orthodontics in children and adolescents for the development and execution of the activities they will perform once graduated, all of which limit the purposes and objectives to be achieved [4]. Considering these budgets, the following objective is stated: to develop an educational multimedia for the subject of "Pediatric Dentistry" that allows to consolidate the contents and acquire the skills and skills that the student needs in this subject by solving several questionnaires (Figure 4).
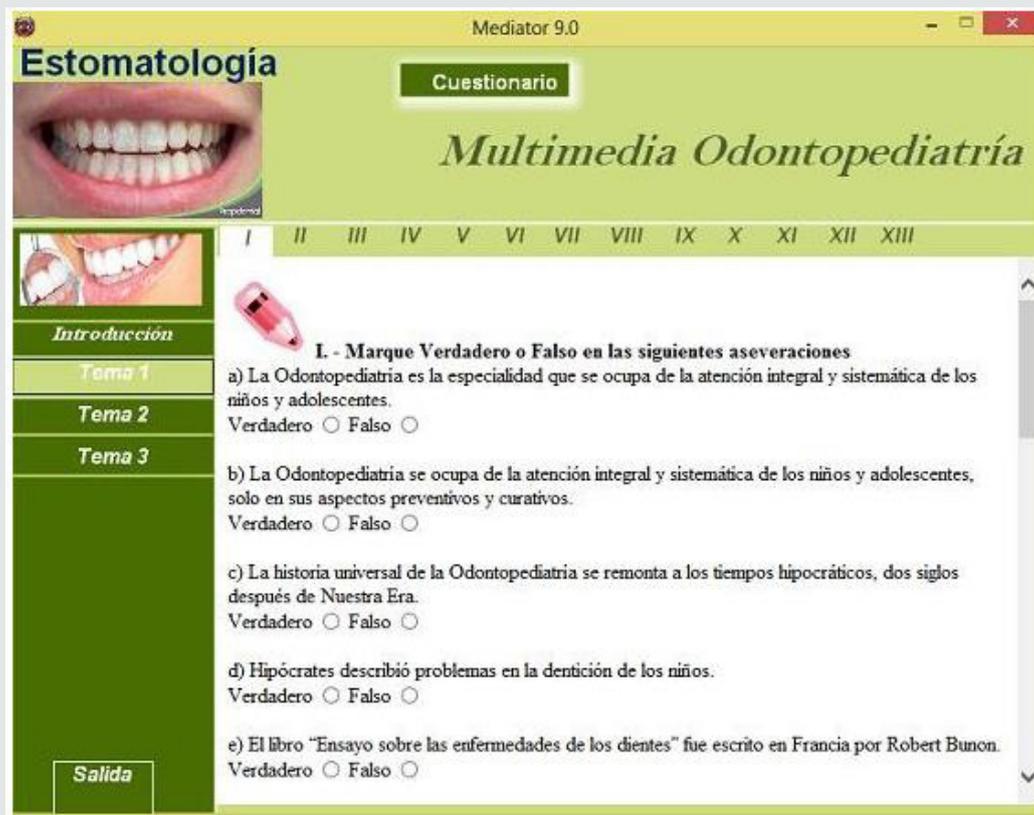
Figure 1: Cover.

Figure 2: Question I of V or F of item 1.
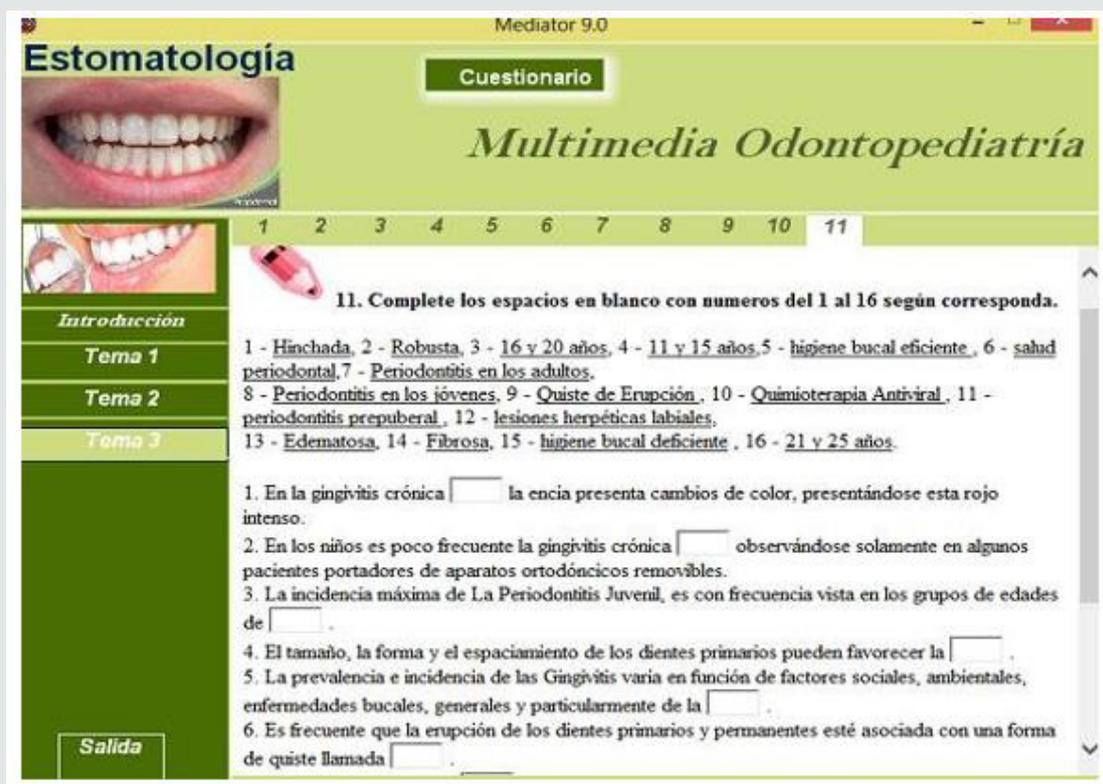
Figure 3: Link Question VIII of item 2.

Figure 4: Question 11 ofco-mpletamiento of item 3.

Development

Several authors suggest that the educational teaching process currently taking place in the Faculties of Stomatology in Cuba, it should be revised, since both the predominant educational model, as well as the contents of the curriculum, are outdated with regard to the development of ICT ; that is, they do not respond to recent scientific and technical advances, to new expectations for the improvement of the technical and human quality of health care [5]. Neither the teachers study them, nor the teachers use these latest generation media in their entirety. In addition, the authors of this multimedia share Luengas view that the consolidation of the ethical values to be developed in professionals during their

training process must also be considered [6]. One of the subjects you need from this review is Pediatric Dentistry, which is within the integrative discipline of curriculum D. Plan D of the career of Stomatitology is designed in such a way that it allows to obtain an egress that is able to carry out comprehensive attention to the population characterized by actions of health promotion, prevention of diseases of the maxyl-facial complex, as well as that it provides the necessary tools for the diagnosis and timely treatment of these referral to the second level of care where required (Figure 5).
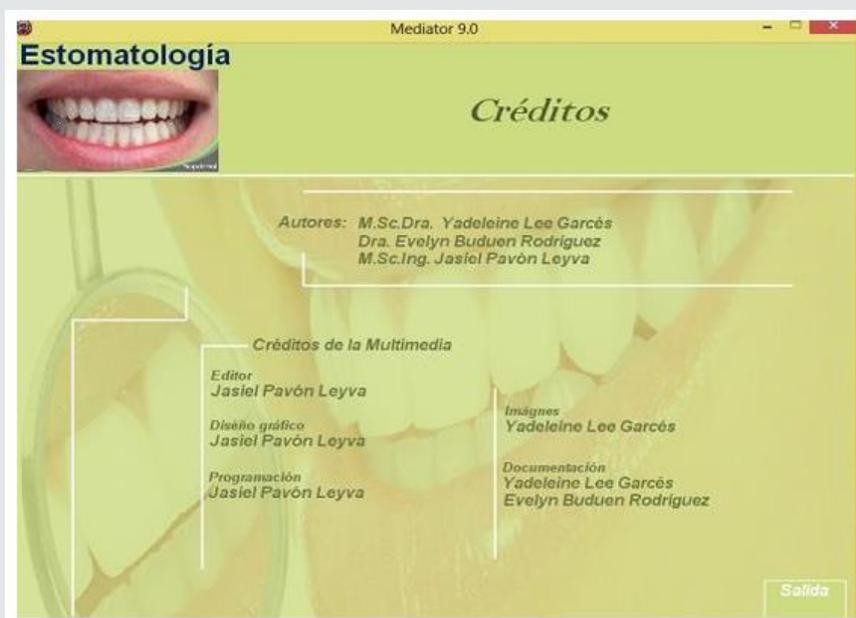

Figure 5: Credits Media Check.

The way of organizing the main teaching in which you can achieve the objective is Education at work where the student learns by doing, however, we help ourselves with dissimilar means of teaching such as x-rays, photographs, study models, use of videos and powers point on the computer etc. Today's reality imposes a challenge: applying information and communication technologies to teaching, thus helping to develop a scientific methodology in educating based on controversial situations that allows them with a simple approach to interpret and resolve real or simulated situations. In view of this situation, it is necessary to ask: Are the Faculties of Stoitology prepared in Cuba to take on the current challenges imposed by technological advances to develop the new curriculum (Plan D)? Is the program of the subject Odontopediatría structured using the latest generation means? Do students and teachers have sufficient mastery of ICT for the development of the teaching process learned from the contents through these new technological advances? The New Communication and Information Technologies, so-called TICs, allow the development of various technological tools to answer the questions that are raised among which are multimedia.

They integrate different media such as visual, auditory and haptics into a single application. These characteristics are the ones that allow it to be used most frequently in the teaching process to learn about both undergraduate and postgraduate. The multimedia proposal is based on the structure, which will allow to obtain a relevant tool according to the target population, target to which it is aimed. The Pediatric Dentistry has different characteristics than other subjects because it is based on the attention of the child population, so the student has to acquire knowledge, develop skills and values that allow him to identify the different clinical cases and problems situations presented to him to make safe diagnoses and appropriate treatments. Multimedia will be a means of teaching and a technological tool of the latest generation that contributes to the student's achievement of the overall objectives of the subject; for example, you can identify different pathologies such as Chan and Rodríguez [7], in this case by observing images, which lead to a specific diagnosis and treatment of the case, in addition to inferring differential diagnoses. So, it integrates knowledge, skills and consolidates values so necessary in the care of the under-19s. The images, text (content), audio, and exercises of multimedia questionnaires, are in line with the purpose of their creation, is of cir, the learning of students and the consequent change in clinical performance and skills expected in the professional future [8-11].

The product presented has a logical order and is easy to handle by the user, who once sits in front of the machine and operates the equipment to access the multimedia, Just clip the executable "Multimedia.exe" to read the presentation or cover where they appear: to the center, a brief introduction of what is addressed in the

software, the first screen, which is the mother screen, is displayed from here you navigate to the other parts of the program; the same pattern the different topics that are addressed, the minimize and close buttons at the top right, and the output button on the lower left pair (Figure 1). The product has instrumental music and has a user manual [12-14]. In the educational multimedia "Odontopediatricría" a questionnaire appears, its content is related to the psychological management of the child, prevention, traumatic injuries, endodontic treatment in temporary and permanent young teeth, surgical procedures and rehabilitation in the dental-pediatric patient, periodontal disease and interceptive orthodontics in children and adolescents. When accessing the different slides, the user will find links that, by clipping them, will allow them to find the information they need, move backwards, continue browsing or simply leave the product if desired.

For the use of multimedia, the procedure is very simple, you only have to copy it to the computer and run it through the executable mentioned above: "Multimedia.exe". The topics contained in the product are divided into three, each of which has a questionnaire consisting of a number of exercises ranging from 13 to 15. Questions of true or false, links, completeness, and chronological order appear in each question. For each of the responses, the system displays a score that indicates which ones are correct and which are incorrect. The first topic addresses exercise on the history of Pediatric Dentistry, the foundation, the precursor to it; how parents and family members approach their children's Stomatological treatment; management techniques for conduct a control in the dental-pediatric patient, physical restriction techniques; Matzukubo technique, Dari screen technique, the use of fluorides, cyst statics, dent bacterial plaque, pulp coating, cavity varnishes, form cresol and calcium-gone hydrox. The second topic concerns operating actions in young temporary and permanent teeth, the characteristics of this, the advantage of tunnel cavities, physurotomies, lastia am lop, preventive restorations, pulp chambers, the concave occlusal cavity, the pulp amputation technique and pulpotomy. The third topic exposes minimally invasive techniques, loss of space in arcades, elimination of occlusal interference, physurotomies, amyloplast, chronic edematous gingivitis, chronic fibrous gingivitis, rash cyst, and antiviral chemotherapy. At the end of the credits of the multimedia, where the names and surnames of the authors of the product and their scientific category are reflected.

Results and Discussion

The multimedia was put into practice with the fourth-year students of the Stomatological Clinic Julio A Mella, for a period of one year, to check its feasibility as a means of teaching, it complies with the principle of hierarchy and integrity, is coherent and affordable. The following clinical case is analyzed to verify its usefulness. 9-year-old girl. APF: The mother refers that there is no member in her family who has this anomaly. APP: the girl does not suffer from systemic diseases; but sometimes has chalk being allergic to dust and often cannot breathe through the nose. About 21 days ago he fell at school while playing in the garden and his previous teeth suffered tissue leaks that compromised enamel and dentin. The extrabucal examination reveals a convex profile, short, hypotonic upper lip, and a strengthening of the chin tassel muscle when ordered to close the mouth. Whenre-alizing the intrabucal examination is a highlight of 6 mm, exceeds 1/3 crown. Ratio of disto occlusion molars, diastemas between the upper incisors. The terminal plane of the second temporal molars in distal step. Loss of normal co-loration of 11 and 21, presents visible coloration in brownish crown. In 84 and 75 white spot that does not retain the explorer towards distal and mesial rims respectively, but which responds to contact with sweet foods and before cold water hot como refers the girl. The girl practices proper oral hygiene but the marginal gum of the anterosuperient teeth is somewhat swollen and with bleeding at the slightest stimulus, the patient does not have tooth decay.

Students were asked to respond to this clinical case:

a)   Is this type of malocclusion preventable? If yes, please mention some measures that would help prevent this dentomaxilofacial anomaly.

b)   What are the diagnostic methods you would use to arrive at a diagnosis in this case?

c)   Is the trauma of the previous teeth common in these types of patients and why?

d)   Diagnose the traumatic injury present in 11 and 21. Explain what behavior, both mediate and immediate, you would take with both.

e)   Diagnose lesions in 84 and 75 and say what characteristics you should ensure in your treatment to avoid excessive aggression to the dentinopulpar complex.

f)   Why is there gingival inflammation if the patient is correct oral hygiene?

g)   Is it necessary to inter consult with other specialties? Explain.

It was shown that multimedia is based on the materialistic dialectical conception of the world and has as its theoretical basis the Didactics, hence the process of teaching – learning subject to laws and as a dynamic activity that needs to be considered at every historical moment in correspondence with the development achieved by society. Aim for the methodological projection of the teaching that the teacher can plan to direct the learning of the students, starting from this itself and the characteristics and

possibilities of the contents addressed in it. The Multimedia "Pediatric Dentistry" was generalized through its implementation in the Stomatological Clinic Lidia Doce and Departments of Stomatology of the Teaching Polyclinics of the Guantanamo Province. 100% of the teachers interviewed agree that the multimedia Educational "Pediatric Dentistry" is valid, because it allows the systematization of the contents related to pediatric dentistry for students of the stomatithology career of the University of Medical Sciences of Guantánamo, also makes it possible to direct the learning teaching process, promotes the realization of independent work, stimulates the creativity of students and solves a problem of socio-educational practice in the career, since there are no multimedia methods to treat this content. Students and teachers consider multimedia to be easy to manipulate and allow the apprehension of information in a clear way, through the use of a technical language absent from verbal stereotypes.

Conclusions

The educational multimedia "Pediatric Dentistry" complies with the principle of hierarchy and integrity, is consistent and affordable, is valid and feasible to consolidate the contents and acquire the skills and skills that the student needs in this subject.

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