

ONLINE ACADEMIC JOURNEY: STUDENTS' PROFILE AND EVALUATION THROUGH DIFFERENT DIGITAL MEDIA IN DENTISTRY

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Abstract

The aim of this study was to present an academic event in the online version and evaluate the user's profile who have signed up and the different digital media used by them. The Dentistry School of State University of Rio de Janeiro performed its first Online Academic Journey, available for free on your Moodle platform for participants who have registered, with five different courses: Computerised Tomography, Endodontic, Aesthetic, Implantology and Periodontology. In order to receive course certificates participants had to complete an evaluation form. The results (quantitative and qualitative) were obtained using data from Facebook, Youtube, Moodle platform and Google forms showed that: most of the participants were from the Southeast region of Brazil (80.6%), 69% of users were female aged between 18 to 35 years, professional dentist activity (70.1%) with graduation academic level (89.4%), 80% of respondents expressed satisfaction with the courses and the device most used by users to watch the courses was the computer (70%) followed by smartphone (21%). We conclude that the methodology used was an innovative experience and provided quality information to different profiles in different regions. The use of different media and technological tools for conducting an online academic journey provides very important resource in disseminating quality academic content, not only for users of the institution that performs as well as geographically distant places.

Keywords: dentistry; dental education; telehealth; telecommunications; eLearning

Introduction

The development and use of digital media are influenced by the user profile for which it was established. For the education area, the evolution of information and communication technologies has

proven very useful in this knowledge relationship. Through the tools available, teachers and students share their knowledge and exchange experiences expanding the information.¹ The online approach places the student at the centre of the learning process that defines autonomously its way of learning, building their knowledge through interaction with materials, with technology, with the tutor and with fellows.²

Information and communication tools have proven to be very useful, in the health area when applied in training professionals and students, in the development of protocols through the exchange of experiences, long distance clinical trials and diagnostic images.

The popularity of the Internet and the frequent use of technological devices improves access to education in the health area. Although the education process in Dentistry is still very conservative, the use of different tools and media are becoming more common. The two environments, face to face classroom and virtual lessons are complementary.^{3,4}

Brazil is a large continent and its social-economic differences are huge between the political regions. That's why eLearning is crucial as a tool to create interactivity, independent learning (which provides a choice of the time and place), overcome distances and improve access to information.

The aim of this study was to evaluate the profile of users of an innovative academic event in this area using different digital media.

Methods

The academic journey is a Dentistry School of State University of Rio de Janeiro (FOUERJ) annual event directed to undergraduate students but open to all professionals in this area. In 2016, the face-to-face model was changed to an online offering from 1st to June 3rd.

Five free short duration (two hours) courses were offered, with different contents: Endodontic (Root canal treatment and filling core in single session),

Periodontics (Gum Smile: biological and clinical practice), Implantology (Reconstructing smiles with dental implants), Aesthetics (Planning and execution of contact lenses) and Radiology (Computed tomography Cone Beam face).

For each topic area we invited one specialist professor, who were instructed on how to develop didactic material with this profile. The teaching sessions were recorded and edited at the core studio of Teleodontology by an audio and video professional and a designer. After the editing, the materials were sent to the professors to evaluate the recording and editing before the materials were made available on the platform.

The courses were advertised through the Teledentistry Center/FOUERJ Facebook page and an electronic mail to Brazilian Public Dentistry Schools, private and public Dentistry Schools of Rio de Janeiro State, Federal Dentistry Council and Regional Dentistry Councils was sent with the information and instructions of the event.

Users signed up on the Moodle platform that automatically generated electronic messages so that the registrations could be made. After registration for the online event, the students chose their desired courses. At the end of each course, the student could request the certificate and fill out an evaluation form that included questions related to their profile and the quality of the teaching material.

The evaluation of online courses was carried out through a Google Form drafted 2 months before the event by the technical team of Teledentistry Center of FOUERJ, obtaining 114 responses. The form consisted of 18 questions of which 7 were discursive and 11 were objective, addressing the profile of students participating and the evaluation of each course offered.

The information obtained about the students' profile was evaluated by the place of origin, occupation, educational background and familiarity with distance learning.

Results and Discussion

Advertisement of the online academic journey was made through the Facebook page of Teledentistry Center/FOUERJ created one month before the event, and linked to ~7,500 people. The event got 364 subscribers through the Moodle platform. At the request of a large number of users who wanted to

attend the courses of the journey period were changed from 1-5 June. The data were obtained from YouTube, Facebook and the Moodle platform. A total of 1,354 views were verified through YouTube, with 16,628 minutes of attended courses and 95 % of these views were in the Moodle environment.

All but one participant in this online academic journey were Brazilians, the other was from Colombia. A large proportion (80.6%) were from Southeast region of Brazil (States of Rio de Janeiro, São Paulo, Minas Gerais, Espírito Santo). Users from all of the states of the Southeast region participated in the online academic journey. A low proportion of students from other regions such as Central West (Brasilia), Northeast (Pernambuco, Paraíba), South (Rio Grande do Sul, Santa Catarina) and North (Pará) participated in this study. The difference in the number of users between the other Brazilian regions and the Southeast region is a consequence of faster technological development, with great access to information and connectivity and because it's the most populous region. Despite this, the presence of users from all the federal regions of the country, proves the effectiveness of this model offering access to academic information. According to Lopes et al (2010) distance education in higher education is a concrete tool for social inclusion, brings new possibilities for communication and information and motivates the rethinking of educational practice.⁵

Females aged 18 to 34 years old were the most represented (59.4%) followed by males aged 18 to 34 years (24.6%). (Table 1) According to the analytical report of distance learning in Brazil (2010), CensoEAD.BR that verifies the evolution and mapping

Table 1. Users' distribution by gender and age.

Gender	Age	Percentage (%)
Male	18-24	12.2
	25-34	12.4
	35-44	4.7
	45-54	1
	55-64	0.6
	65	1
Female	13-17	2
	18-24	28.7
	25-34	30.7
	35-44	5.9
	45-54	0.8

of online education, reports that the predominant gender in this type of education is the female and students are on average 30 years old.⁶

Eighty percent of respondents expressed satisfaction with the courses (good or excellent). (Figure 1) Users' satisfaction can be related to the teaching being independent of time and place making the training possible anywhere at any time. Users can also determine their own learning pace, so that the individual can have an active role on the pace and learning needs. In addition, the topics of the courses and the chosen teachers were also important in this evaluation. According to Vieira et al, satisfaction is a prime factor that guarantees the motivation of the student in their training and qualification.⁷

Most participants were dentists (70.1%). (Table 3)

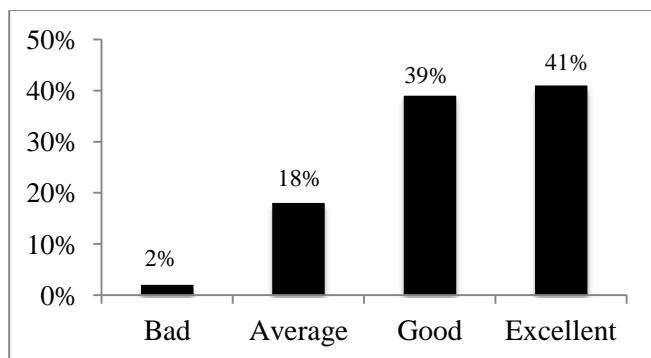


Figure 1. Users' perception of course quality.

Students evaluated the following criteria: content, presentation and applicability of the subject. (Table 2)

Table 2. Participants' satisfaction with content and presentation of courses.

Courses	Level of Satisfaction	(%)
Content	Bad	0
	Average	1.4
	Good	19.8
	Excellent	78.8
Presentation	Bad	0.3
	Average	0.6
	Good	23.8
	Excellent	75.3
Applicability	Bad	0.6
	Average	0.6
	Good	19
	Excellent	79.8

Table 3. Professional activity of students enrolled in online courses.

Professional activity	N=	(%)
Student	31	27.2
Dentist	80	70.1
Professor	1	0.9
Radiology technician	2	1.8

The level of academic achievement of the participants is shown in Figure 2. Most users were graduates (89.4%). The report of distance learning in Brazil (2013) - CensoEAD.BR, identified that those with a Higher level of education had a greater adherence to projects and use of distance learning than those who had a Basic education. The literature frequently describe the profile of distance learning students as adults, professionally active and self-motivated.^{6,8}

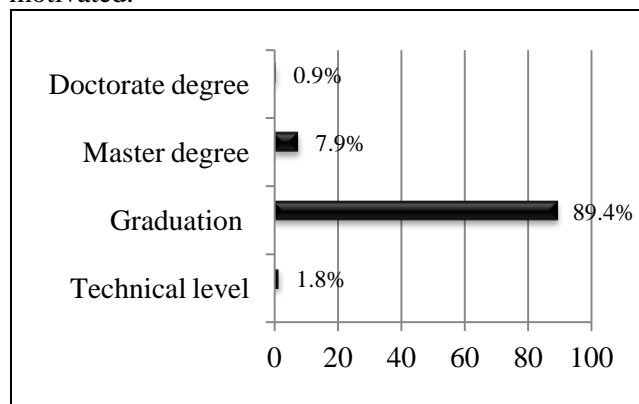


Figure 2. Academic level of enrolled users.

The Academic Journey online the first experience in distance education for 40.6% of users. Data obtained from YouTube showed that courses were accessed predominantly through computers 70%, and smartphones 21%, with 8.2% using tablets and 0.8% TV.

Conclusion

The use of different media and technological tools for conducting an online academic journey provides very important resources for disseminating quality academic content, not only for local users at the host institution but also others who are geographically distant.

The participating audience of the online courses available during the five days of the online Academic Journey of FOUERJ was quite diverse and they were predominantly in the Southeast Region followed by the Northeast. Users were mainly female dentists aged between 18 and 35 years who did not have a further postgraduate degree. Over half of the users had participated in distance education before. Students and professionals from various parts of Brazil took part, and most people used a computer or smartphone to access courses. The content, layout and applicability of the subject was considered good or excellent.

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