

Experiences and perception of dentistry students and professors regarding online classes during the COVID-19 pandemic

Roberto Zimmer*; Guilherme Anziliero Arrozi**; Eduardo Galia Reston**; Fernando Freitas Portella***

* Graduate Student in Dentistry, Universidade Luterana do Brasil

** PhD, Professor, Universidade Luterana do Brasil e Universidade Feevale

*** PhD, Professor, Universidade Feevale

Received: 08/01/2020. Aprovado: 08/21/2021.

ABSTRACT

The present study aimed to describe the perception of Dentistry professors and students regarding the activities developed in virtual environments during the period of social isolation. Through self-administered questionnaires, professors and students from four Dentistry courses were invited to answer objective and subjective questions about their experiences and sensations during the period. Both professors and students consider that the learning in this period was inferior to the face-to-face, however, they agree with the maintenance of the virtual classes during the pandemic period.

Descriptors: Education, Dental. Education, Distance. COVID-19.

1 INTRODUCTION

The suspension of face-to-face activities in higher education institutions was a measure adopted as a strategy of social detachment with the objective of reducing the peak of the epidemic curve of the new coronavirus (COVID-19)¹. Through normative ordinance of the Ministry of Education, face-to-face meetings were replaced by virtual activities made available by a large part of the institutions during the entire period of confronting the pandemic².

A model of effective online learning needs

a project and a careful instructional plan, so the urgency of changing from the real to the virtual can cause a limitation in the use of resources and methodological innovations^{3,4}. Because of this, there is the concern to understand how professors are dealing with the abrupt change of their paradigm from classroom activities to education activities via digital platforms. Likewise, there is a need to assess the perception of students with virtual activities as it is found that online learning carries a lower quality stigma than face-to-face learning, although research shows the opposite⁵⁻

⁸. Thus, the present study aimed to describe the perception of Dentistry professors and students regarding the activities developed in the virtual environments of educational institutions during the period of social isolation.

2 METHODS

The present study brings the data collected in an online survey answered by professors and students of four Dentistry courses at private universities in southern Brazil, namely, Feevale University located in Novo Hamburgo and Lutheran University of Brazil, covering the campuses of the cities Cachoeira do Sul, Canoas and Torres. Professors and students who were developing some curricular teaching activity in the remote format were eligible to participate. The total number of professors and students of the Dentistry course at the institutions in the 2020/1 semester is 97 and 717, respectively (Ulbra Cachoeira do Sul: 12 professors and 86 students; Ulbra Canoas: 50 professors and 326 students; Ulbra Torres: 14 professors and 151 students; Feevale: 21 professors and 151 students).

The survey was carried out through two independent self-administered questionnaires, composed predominantly of objective questions, made available online (Google Forms). The questions were proposed by the researchers and adjusted by a pilot study carried out with three professors of and ten dentistry students from other institutions that were not part of the final sample. In addition to the objective questions, there was an open field for the participant to comment on their experiences and feelings during the period. The links to access the questionnaires were sent to the coordinators of the courses, who shared the access link to the questionnaire with the professors and students of the institution. University professors were asked to reinforce the invitation to participate during

classes. Responses were collected between June 1, 2020 and June 14, 2020, a day before the regional government allowed the return to face-to-face practical activities. The study was approved by the Research Ethics Committee of the Lutheran University of Brazil (Opinion n°. 4.062.276, CAEE 30769120.0.0000.5349).

3 RESULTS

The response rate of professors was 71.3% and 32.8% for students. Among the most cited teaching activities, real-time classes, recorded video-classes and the sharing of lesson slides stood out. Table 1 presents the detailed responses according to the institutions. The relationship of time dedicated to virtual activities is inversely proportional for professors and students; while professors consider that their time dedicated to classes during this period was higher compared to the face-to-face mode, students devoted less time (figure 1). Even with a long time of dedication, part of the participants reported difficulties during the development of remote education, and the perception of professors and students about the construction of knowledge in virtual environments is described in figure 2.

In relation to learning in virtual environments compared to face-to-face classes, 2.6% of students considered that there was no difference between the modalities, while 97.4% of students reported that there was a decrease in the level of learning. Among the students who reported this decrease, 9.8% considered that learning during the period of social isolation was up to 20% less, while 24.7% considered a decrease of up to 40%, 28.1% reported a decrease of up to 60%. A portion of 17.9% of students reported a decrease of up to 80% and 15.3% stated that learning was up to 80% less. A portion of 1.7% of students reported that they learned nothing during virtual activities.

Table 1. Response rate and activities performed during the distance learning period

	Feevale	Ulbra Cachoeira do Sul	Ulbra Canoas	Ulbra Torres
Students				
Respondents/Total (response rate)	97/154(63.0%)	33/86 (38.4%)	81/326 (24.8%)	24/151 (15.9%)
Classroom slides	92 (94.8%)	30 (90.9%)	76 (93.8%)	19 (79.2%)
Discussion in forums	79 (81.4%)	9 (27.3%)	44 (54.3%)	6 (25.0%)
Video-lessons or videos of procedures/techniques produced by their professors	66 (68.0%)	18 (54.5%)	62 (76.5%)	12 (50.0%)
Video-lessons of procedures/techniques produced by other professors	53 (54.6%)	9 (27.3%)	35 (43.2%)	6 (25.0%)
Real-time online classes	93 (95.9%)	33 (100.0%)	79 (97.5%)	22 (91.7%)
Others (reading articles, clinical cases)	1 (1.0%)	3 (9.0%)	2 (2.4%)	1 (4.2%)
Professors				
Respondents/Total (response rate)	15/21 (71.4%)	8/12 (66.7%)	43/50 (86%)	3/14 (21.4%)
Classroom slides	12 (80.0%)	6 (75.0%)	30 (69.8%)	3 (100.0%)
Providing complementary materials (scientific articles, book chapters)	13 (86.7%)	7 (87.5%)	39 (90.7%)	3 (100.0%)
Requesting the submission of complementary activities	13 (86.7%)	6 (75.0%)	32 (74.4%)	3 (100.0%)
Providing video-lessons of procedures/techniques	8 (53.3%)	3 (37.5%)	26 (60.5%)	2 (66.7%)
Providing video lessons or videos of procedures/techniques from other professors	4 (26.7%)	1 (12.5%)	9 (20.9%)	2 (66.7%)
Online classes in real time	15 (100.0%)	6 (75.0%)	39 (90.7%)	3 (100.0%)
Others (peer review, concept maps, discussion of clinical cases)	4 (26.7%)	2 (25.0%)	1 (2.3%)	-

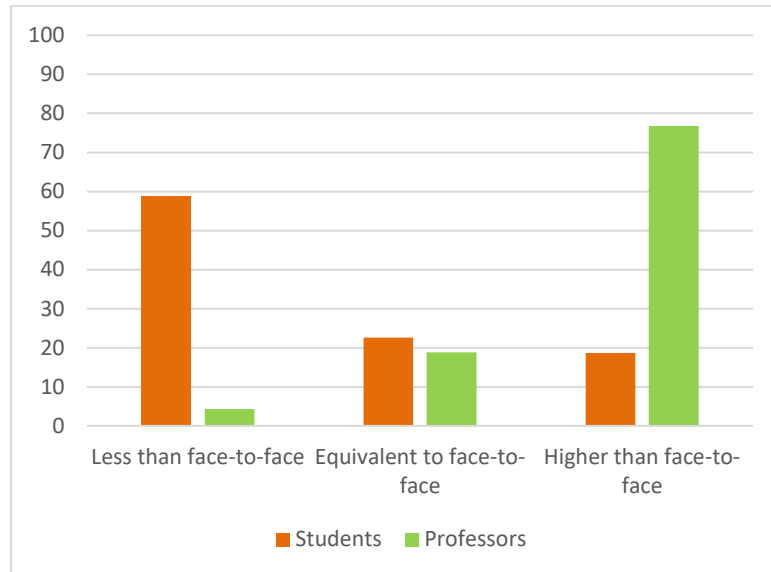


Figure 1. Time allocated for virtual activities during the period of social isolation

4 DISCUSSION

The COVID-19 pandemic will promote permanent changes in dental practice and in the interaction between professors and students for the construction of knowledge. The consequences of abrupt and unplanned changes from face-to-face to remote education need to be assessed⁹. In the short term, the participants of the present study reported that virtual learning was inferior to face-to-face, even though most students are used to using information and communication technology tools to study.

Remote learning requires a different planning of activities, which are not normally routine for professors of Dentistry courses, which have a predominantly in-class workload. In addition to facing difficulties in the development of virtual activities, most professors reported that they are devoting more time to virtual activities that relate to face-to-face classes. This is due to the need for professors to learn how to teach online and evaluate the effect of the methodologies used and, even so, in many cases, failing to deviate from the traditional “content delivery”¹⁰.

The substitution of classroom teaching for

remote teaching is a market trend in several courses. Studies demonstrate the benefits when distance learning is used properly⁵⁻⁸. However, the change from the real to the virtual and the difficulty in putting active methodologies into practice in virtual environments can be an explanation for the fact that professors and students consider that the use of remote classes is inferior to the face-to-face meetings, even agreeing with the maintenance of distance activities throughout the period of social distance.

In addition, the option for the online format has been adopted on an emergency basis and does not have, in its design, all the planning that the distance method requires, and it is being offered indiscriminately to students who sought an on-site course. These students possibly have different learning styles than the student who spontaneously pursued a distance learning course. It is worth mentioning that this alternative was adopted by the institutions in the sense of not totally pausing the training of students and keeping them active and motivated in the course, working on the theoretical contents in the period, and the practical activities were rethought to return to the face-to-face mode.

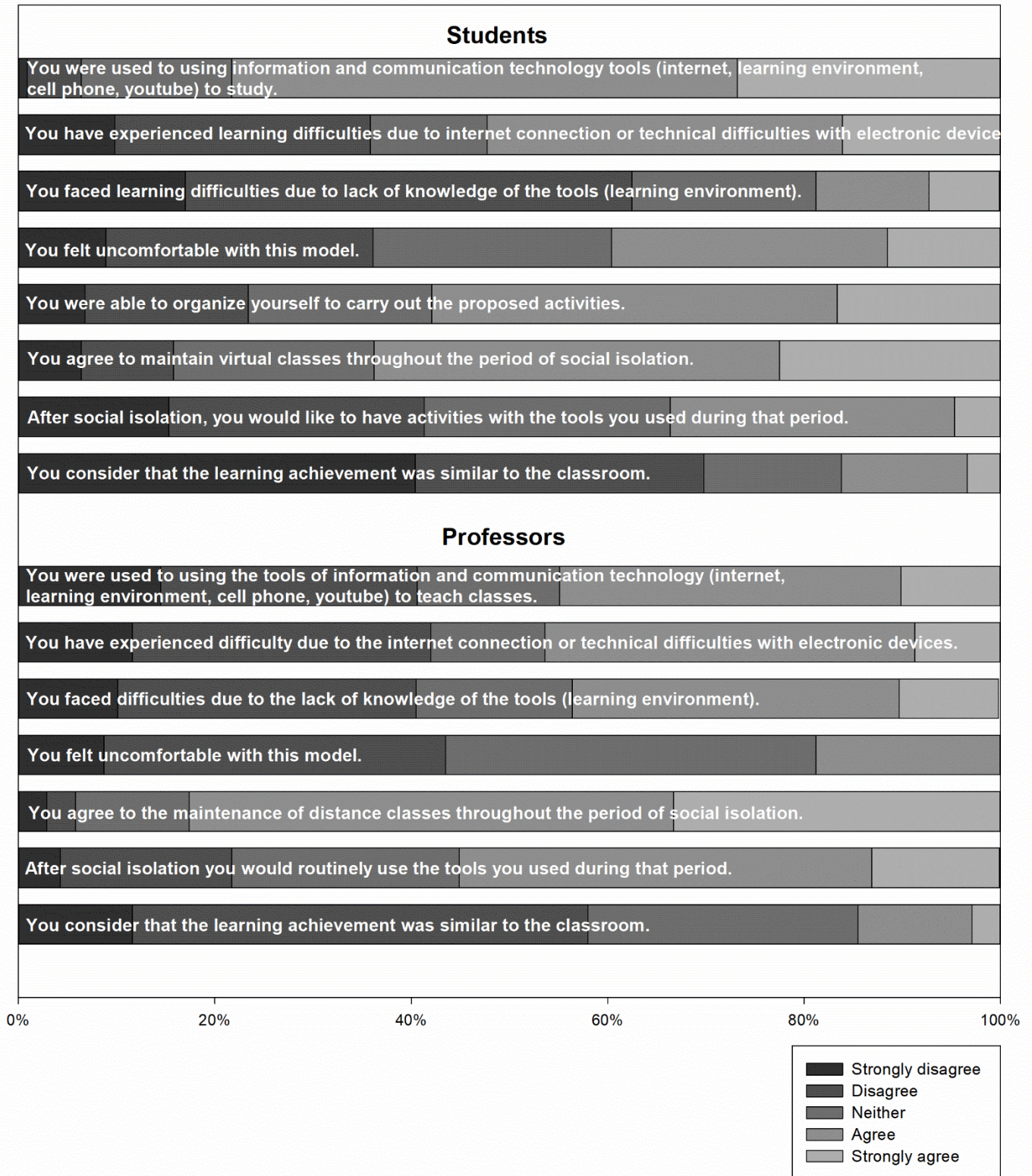


Figure 2. Perceptions of students and professors regarding virtual activities during the period of social isolation

The concern with the recovery of practical classes was pointed out by a good part of the students and professors participating in the research.

The factors that affected the response rate among students were not assessed, however, the response rates, including that of 32.8% of students, remained within the standards of the literature for online survey^{11,12}. Since electronic forms were used, precisely to assess perceptions about remote activities, one can imagine that non-respondents have negative perceptions regarding the activities performed. The real learning and assessment of the skills developed by the students will be a challenge to the pedagogical team of the undergraduate courses.

5 CONCLUSION

In general, students and professors consider that the learning in this period was inferior to the face-to-face, however, they agree with the maintenance of the virtual classes during the pandemic period. Even among professors, most are open to using online tools routinely after the isolation period.

ACKNOWLEDGMENTS

The authors are grateful for the support of professors and students who helped disseminate the research. The present study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (CAPES) – Finance Code 001.

RESUMO

Experiências e percepções de discentes e docentes de odontologia sobre as aulas remotas durante a pandemia de COVID-19

O presente estudo objetivou descrever a percepção de docentes e discentes de Odontologia sobre as atividades desenvolvidas nos ambientes virtuais de aprendizagem durante o período de isolamento social. Professores e

estudantes de quatro cursos de Odontologia foram convidados a responder a um questionário autoaplicável, contendo questões objetivas e subjetivas a respeito de suas experiências e sensações em relação às atividades. Tanto docentes quanto discentes consideram que o aprendizado nesse período foi inferior ao presencial, contudo, concordam com a manutenção das aulas virtuais durante o período da pandemia.

Descritores: Educação em Odontologia. Educação a Distância. COVID-19.

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Correspondence to:

Fernando Freitas Portella

e-mail: fernandoportella@feevale.br

Universidade Feevale. Rodovia RS-239 2755, 93525-075 Novo Hamburgo/RS Brazil