

How to Teach in Emergency Remote Teaching? MOOCs for the Continuing Education of Higher Education Teachers

Como Ensinar em Ensino Remoto Emergencial? Uso dos MOOCs para Formação Continuada de Professores da Educação Superior

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Abstract

The inability to delivery presential classes at Brazilian universities in 2020 and 2021, due to the COVID 19 pandemic, significantly impacted the higher education. This case report addresses the results of three massive on-line courses for continuing teacher education for higher education, offered in the state of Rio de Janeiro in 2020 to 4200 teachers. The courses aimed to reflect on the changes that have taken place in the didactic transposition of face-to-face classes to the virtual model, through emergency remote teaching use. The results shows high demand and engagement of teachers looking for courses about remote teaching practices and use of technological tools. Most of the course participants were higher education professors, teaching for more than 10 years, with postgraduate training. The teacher's perception regarding the impacts of this period on their teaching practice was that experiences in remote teaching will lead them, in the future, to use more technologies to support face-to-face teaching, despite recognizing that they don't know enough about all teaching practices and technologies . Most of the participants agrees that they are able to manifest their teacher cognitive presence during to use virtual learning environments. Indeed, holding of these courses in MOOC format supported teachers at a historical moment of high instrumental and pedagogical demands on the subject.

Keywords: Continuing education. Higher education. Remote learning. On-line interaction.



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Resumo

A suspensão das atividades presenciais nas universidades brasileiras nos anos de 2020 e 2021 por conta da pandemia de COVID 19 impactou significativamente o ensino superior no estado do Rio de Janeiro. Este estudo de caso aborda os resultados de três cursos on-line massivos para formação continuada de professores para ensino superior, ofertados durante o ano de 2020 para 3000 cursistas. Os cursos tinham como objetivo a reflexão sobre as mudanças ocorridas na transposição didática das aulas presenciais para o modelo virtual, por meio do uso ensino remoto emergencial. Os resultados demonstram a alta procura e engajamento dos docentes da educação superior por capacitação docente para o planejamento de práticas didáticas com uso ferramentas tecnológicas para o ensino remoto. A maioria dos cursistas eram professores do ensino superior público, atuantes há mais de 10 anos, com formação de pós-graduação. A percepção dos docentes quanto aos impactos deste período sobre a sua prática docente foi que as experiências no ensino remoto os levarão, no futuro, a utilizar mais as tecnologias como suporte ao ensino presencial, apesar de reconhecer que não conheciam o suficiente sobre todas as tecnologias. Os mesmos também relataram aspectos positivos em relação sua presença cognitiva nos ambientes virtuais de aprendizagem dos cursos. Com efeito, a realização dos cursos em formato MOOC apoiou os professores num momento histórico de altas demandas instrumentais e pedagógicas sobre o tema.

Palavras-chave: Formação continuada. Educação superior. Ensino remoto. Interação on-line.

1. Introduction

The impact and the way in which we were surprised by the public health problem of the coronavirus pandemic (COVID 19) worldwide, confirmed by the World Health Organization (WHO), caused drastic changes and sudden changes in people's routine, in different social dimensions, economic, cultural and educational.

The need for social isolation imposed as the only effective protective measure to face the pandemic marked the interruption of face-to-face activities in education, so that academic calendars were suspended and many weaknesses of the educational system were exposed, in addition to the social inequalities of internet access, equipment and technological appropriation.

The month of March is traditionally known for the beginning of the first semester classes in public universities in Brazil. In the year 2020, the month of March was marked by the closing of schools and universities, accompanied by a period of many anxieties, fears and uncertainties about what would be the impact of the pandemic on people's lives and how long it would take for the return of activities. face-to-face activities.

In this sense, the example of the Federal University of Rio de Janeiro (UFRJ) is cited, which, on June 16, announced that it would only return to face-to-face classes when they discovered an effective drug or vaccine against the new coronavirus. (UFRJ, June 16, 2020). The other public higher education institutions in Rio de Janeiro followed the same understanding, as face-to-face teaching was unfeasible due to the high number of cases and deaths from the disease in Brazil. But, on the other hand, there was a growing understanding among managers, teachers and students of the need for continuity and resumption of teaching activities.

The uncertainty of when would be the return of face-to-face classes justified the reason for the adhesion and offer of emergency remote teaching by universities. The emergence of the term “Emergency Remote Education (ERE)” as an alternative modality occurred after the regulation through specific legislation of the Ministry of Education, in Ordinance No. consequently, of internal resolutions in universities.

For Arruda (2020), the novelty of the confinement situation and the lack of knowledge of the evolution of the flow of the new coronavirus pandemic made it difficult for any short and medium-term educational planning by governments. In universities, the scenario was no different, managements discussed internally in meetings of councils and departments how they could serve students in this exceptional situation, and what implications they would have with the offer of the ERE.

In view of the above, the objective of this work is to present a case study on a set of three online courses offered in MOOC format (Massive Open On-line Course) of continuing education offered under the project Contributions of the CECIERJ Foundation to Emergency Remote Teaching, in the state of Rio de Janeiro, developed between July and November 2020, for 4200 registered teachers, most of them higher education professors from the universities of the CEDERJ Consortium and other public institutions. The main objective of the courses was to work with teachers on two major central questions that hovered over teachers with less experience in online education in this period of social isolation caused by the Covid-19 pandemic.

1. How to teach only with the support of digital technologies in higher education?
2. What changes in relation to the didactic transposition of face-to-face classes to the virtual model of remote teaching in public higher education?

2. Differences between face-to-face, distance and remote teaching

Pedagogical innovation in teaching and learning processes brings challenges to university teaching. From this perspective, we start from the understanding that teaching practice is a complex activity that demands several aspects and conditions that influence the way in which the teacher acts (Darling-Hammond & Bransford, 2007).

When classes were suspended and universities were still in the preparation and planning phase to start ERE activities in the second half of 2020, the most recurring question was: what is the difference between distance education and emergency remote teaching?

It is clarified that there were debates and different opinions on this topic, divergences permeated during a period in the discussions. It was necessary to look for specialists in the DE field to make such a distinction, to explain what are the similarities and differences between DE and ERE.

It started from the idea that the planning that the teacher had carried out for face-to-face education would not be possible to apply. Therefore, many teachers felt unprepared to work in the ERE, using distance education resources. In addition, they questioned whether or not they should adhere to this alternative modality and the concern to ensure quality standards in the teaching and learning processes.

Behar (2020) sought to explain that these were different concepts, mainly due to the context we were experiencing.

The term “remote” means far away in space and refers to a geographical distance. Teaching is considered remote because teachers and students are prevented by decree from attending educational institutions to prevent the spread of the virus. It is an emergency because overnight the pedagogical planning for the 2020 school year had to be shelved (BEHAR, 2020).

One of the main distinctions between distance education and the ERE is in the way the contents of the disciplines are planned. For distance education, most subjects are prepared by teachers under the supervision of specialists in the area of instructional design and pedagogical coordination that will support teachers in the quality of teaching material produced for different media.

In the ERE, the teacher needs to act in a more autonomous way and will have to rely on the digital tools of self-production, which he himself had to learn to operate to produce his materials and learning resources, aiming to continue the transmission of the content and knowledge that was available. designed for face-to-face teaching. The production of content and the elaboration of specific digital teaching material may also be carried out with indication of other authors and materials that are not of their authorship, such as books or chapters, articles, videos, podcasts and other materials. This is just one example among several other aspects that the teacher used when preparing his classes for remote teaching.

3. Universities and remote learning

How did the public universities of Rio de Janeiro (RJ) define the ERE? The following are three examples:

3.1 Federal University of Rio de Janeiro (UFRJ)

The UFRJ Undergraduate Teaching Council, on an exceptional basis, authorizes the carrying out of non-face-to-face pedagogical activities, as long as the health restrictions of contingency of the proliferation of COVID19. Non-face-to-face pedagogical activities may be carried out by: I. Digital means (video classes, synchronous or asynchronous, content organized in virtual teaching and learning platforms, electronic mail, among others); II. Adoption of didactic material with pedagogical guidelines disseminated to students; III. Guidance for readings, projects, research, activities and exercises indicated in the teaching materials. The sizing of disciplines and classes remains at the same standards as face-to-face teaching". (UFRJ, RESOLUTION CEG No. 03, of JUNE 17, 2020).

3.2 Federal Rural University of Rio de Janeiro (UFRRJ)

Emergency remote teaching (ERE) is a temporary change in the way classes are offered due to the circumstances of the Public Health problem caused by the coronavirus-COVID 19. This new teaching modality involves the use of remote solutions for educational processes that, under normal, would be offered in person that will return to the face-to-face modality as soon as the pandemic crisis is overcome. The sizing of disciplines and classes remains the same as in face-to-face teaching. (UFRRJ, Art.01, RESOLUTION No. 40, of JUNE 9, 2020).

3.3 Fluminense Federal University (UFF)

The maintenance of academic and administrative activities defined by the superior management, which can be planned, guided and executed remotely, in the context of the pandemic, differs from the offer of the DE modality, as they present a didactic-pedagogical concept that aims to meet a change temporary to an alternative mode of education, through activities in a remote environment, mediated by technologies during an emergency and exceptional period. (UFF, RESOLUTION No. 156, of JUNE 12, 2020).

From the concepts mentioned, it is possible to infer that the ERE is considered as an experimental model that requires a different pedagogical planning from the face-to-face modality and distance education. The interaction and communication between teacher and students will take place exclusively through the use of digital technologies (internet). The main challenge for teachers when using the ERE 'modality' was to create a didactic sequence using only online tools, in addition to making content available.

In this sense, the federal universities sought to map what were the emergency needs and difficulties of teachers, in the planning of classes, to work in remote teaching. Rodrigues (2020) cites four main themes that were grouped from the answers to questionnaires and the recurring demands in the teachers' speeches. These topics should be considered during training and continuing education, namely: "1) Organization and planning of remote disciplines; 2) Student autonomy and pedagogical mediation; 3) Assessment in remote courses and; 4) Specific methodologies and technologies." (Ibid).

The case study by Ferreira et al. (2020) on the course "Potentializing teaching and learning using Classroom", describes that this service was designed to help UFF teachers to integrate the Google Classroom platform into teaching-learning practices in the context of the pandemic. In this sense, they highlighted that continuing education should not be restricted only to the instrumental use of the chosen VLE, but to discuss a conception of education mediated by technologies in a broader way, emphasizing the importance of interaction in the virtual learning environment for the pedagogical and educational relationship. the bond between teacher and students.

From this perspective, the Dean of Extension at UFRRJ (Federal Rural University of the state of Rio de Janeiro) offered the "Creative Teacher Workshop" on the Moodle platform, with the aim of asynchronously disseminating digital technologies to assist teachers and undergraduates. in the teaching-learning process. According to the results of a survey carried out by Veras et al. (2020) about this workshop, the course participants mentioned that they used the slideshow (Power Point) more; games and graphic materials, such as mind maps, infographics, banners and folders; audiovisual resources such as videos, music and podcasts.

4. Study context and methodology

The CECIERJ Foundation (Center for Science and Higher Distance Education of the State of Rio de Janeiro) is an agency linked to the State Secretariat for Science, Technology and Innovation (SECTI). It stands out with projects in the areas of distance higher education and scientific dissemination, in the municipalities of the State of Rio de Janeiro. The CEDERJ Consortium is a partnership formed between the Government of the State of Rio de Janeiro and eight public institutions of Higher Education (Celso Suckow da Fonseca Federal Technological Education Center – CEFET; Rio de Janeiro State University – UERJ; Northern State University Fluminense – UENF; Fluminense Federal University – UFF; Federal University of the State of Rio de Janeiro – UNIRIO; Federal University of Rio de Janeiro – UFRJ; Federal Rural University of Rio de Janeiro – UFRRJ and Instituto Federal Fluminense – IFF).

With the events of the COVID 19 Pandemic, starting in March 2020, there was a need, request and interest from several universities for the creation of the project "Contributions of the CECIERJ Foundation for Emergency Remote Teaching" offering free and online courses. line for Higher Education professors from CEDERJ Consortium universities and other institutions. The central aim was to offer better support to professors from universities belonging to the CEDERJ Consortium who, unexpectedly, had to adapt their face-to-face work routine to a remote reality in teaching mediated by technologies.

Three online courses were developed in MOOC (Massive Open Online Course) format. Each MOOC provided 1000 vacancies (total of 3000 vacancies filled), where the class had a month's availability for completion. Only the course participants who completed all the proposed training actions were certified. Courses in MOOC format have been presented as a worldwide trend in recent years for university extension actions, especially for adults looking for continuing education. In the case study in question, we tried to work with the format known in the literature as cMOOC.

cMOOCs are MOOCs with connectivist characteristics, as they promote communication, collaboration and knowledge construction in a network (Goshtasbpour, Swinnerton, & Morris, 2020). The purpose of this type of offer is to create non-formal training environments for a large number of course participants

quickly and effectively. In our case, teachers had at their disposal several reference teaching materials available in multiple media (videos, hypertexts, podcasts), but this was not the main learning tool of the course. The essence of this type of teacher training lies in the promotion of several collaborative activities, such as peer review activities, collaborative knowledge construction forums, collective creations, as well as other specific online teaching tools customized to exploit the advantages of connectivism (Siemens, 2005). The aim is to promote an intense process of interactivity, collaboration and communication with multidirectional (rhizomatic) and ubiquitous characteristics among course participants (Santaella, 2014), without the traditional communicational hierarchy on the part of the teacher or tutor. In this democratic space for the construction of knowledge, everyone is there to learn together and exchange experiences, with equal opportunities for participation.

The first course to be developed was “Remote teaching: where to start?”, the second “Virtualized face-to-face teaching: real-time remote classes” and the third “Virtual learning environments: exploring online interaction”.

The course “Remote teaching: where to start?” offered the rationale and basic notions about the process of transposing face-to-face classes to flexible models of remote classes mediated by technology. In addition, he highlighted the importance of educational planning and student guidance in this model, as well as guiding teachers on how to make the appropriate didactic and technological choices to start building an emergency remote teaching proposal for higher education.

The course “Virtualized face-to-face teaching: real-time remote classes” introduced the teacher to the features of the main technologies for conducting classes and activities in real time (synchronous), in addition to sharing some didactic indications to promote greater student interaction during virtualized face-to-face classes.

The course “Virtual learning environments: exploring online interaction” presented several possibilities and tools available for creating and using virtual learning environments (VLEs) for higher education. With this set of technologies, the teacher will be able to plan and teach classes via remote teaching, also using asynchronous tools as instruments to support face-to-face or virtualized face-to-face teaching.

Through research with a qualitative approach (FLICK, 2009) we selected and organized the collection of data from the courses, which were interpreted in the light of three categories of analysis: a) pedagogical planning and design; b) profile of the public enrolled in these MOOC teacher training courses; c) analysis of participation in interaction and evaluation activities.

The data analysis of this case study is essentially qualitative, which according to Flick (2009) brings a possibility of linking qualitative and quantitative data, so that the percentages were used only as a strategy to qualify the arguments about the results, in a complementarity relationship.

The team of teacher trainers was made up of a general coordinator and four specialist teachers in the field of distance education and educational technology, who met weekly for six weeks in the planning and production of content and media activities. In these meetings, the weekly production of materials prepared by each teacher was established, considering the syllabus that would be covered in the courses. These materials were evaluated by the team’s peers and, in the final stage, passed to the web designer sector for diagramming.

The courses were published and carried out on the website of the digital platform for open online courses (<https://extensao.cecierj.edu.br/mooc/>) following the same standards as the others and together with the MOOCs of the CECIERJ Foundation. The course participant had to register, which was conditioned to the number of vacancies, and according to the course start calendar, he received access to the virtual room.

The course guide presented the initial information about the learning objectives, program content, type of methodology, materials used, interactive and collaborative activities and tips for navigating through the content. In addition, the course participant was informed that if he/she encounters difficulties in using the virtual environment, he/she could request the support of a tutor. The tutoring also answered questions regarding content, with the support of specialist teachers. The tutor also activates weekly with the publication of notices directing the contents and activities of the courses, as well as coordinating the formation of discussion groups and collaborative activities of the courses.

5. Results

The results of this case study were obtained from the analysis of data associated with the following categories: 1) profile of course participants who enrolled; 2) their perceptions of the impact of the pandemic; 3) analysis of participation and evaluation rates; and 4) Evaluation of the effectiveness of the continuing teacher education project.

5.1. Profile of continuing education course participants

With the aim of investigating who were the ones who took the three online courses in MOOC format, offered in the first class of each course, we analyzed data related to the level of education they worked (Table 1), academic training (Table 2), type of bond regarding the school network (Table 1). Table 3) and length of service in teaching (Table 4). A total of 518 teachers responded to this survey (12.3% of the total of 3000 enrolled).

The offer was aimed at the public of higher education professors, from public, community or private universities. However, we also had a large number of teachers from basic education. Entry to the course was made by self-enrollment, there was no restriction at the time of enrollment, only the total number of seats (1000), as is common in offering courses in MOOC format. Below, the results based on the responses of the course participants in the questionnaires of the 3 courses.

Table 1: Teaching activities of the course participants

	Course 1	Course 2	Course 3
I'm not a teacher	7%	12 %	15%
Teacher of technical courses and others	15%	16 %	16%
Basic Education Teacher	32%	32%	35%
Higher Education Teacher	46%	40%	34%

Source: The authors

According to the percentages presented, it is possible to notice a similarity between the courses in terms of the level of education at which the teachers worked, and we obtained a very close percentage between the teachers who worked in basic education and those who work in higher education. In this case, it shows the spontaneous adhesion of basic education teachers in the search for continuing education to work in the ERE.

In the MOOC format, the student does not need to prove their education at the time of registration on the platform. The courses were prepared to serve a target audience of masters and doctors, titles that are required in competitions for entry into the career of higher education professors.

Table 2: Academic education.

	Course 1	Course2	Course 3
I don't have a degree	2%	5%	4%
Graduation (Bachelor's Degree)	7%	7%	6%
Graduation (Bachelor's Degree)	30%	32%	35%
Master's degree	24%	27%	26%
Doctorate degree	37%	28%	28%

Source: The authors

In summary, the composition of the percentages follows an order of coherence with the public of teachers who work in basic education, technical courses and others, in which the requirement for a degree is the undergraduate course to enter the teaching career. Although, this data was not analyzed in relation to the academic formation and the teaching level of the teacher's class regency.

Regarding the course participants' workplace, in particular, it is noteworthy that most course participants came from public institutions. One of the hypotheses is that the CECIERJ Foundation has a tradition in offering continuing education for teachers who work in the public network of the state of RJ, traditionally in the area of distance education.

Table 3: Type of link with the education network.

	Course 1	Course 2	Course 3
I'm not a teacher	9%	15%	15%
Public school/university	77%	66%	68%
Private school/university	15%	18%	16%

Source: The authors

Of the total number of teachers who answered the question about teaching time in the classroom, the results that stood out the most were those who had between 20 and 30 years of experience in the classroom, around 20%; followed by those with 5 to 10; 10 to 15 and 15 to 20 years of classroom experience, with approximately 15% for responses, thus demonstrating an audience with extensive experience in pedagogical practice.

Table 4: Classroom exercise time.

	Course 1	Course 2	Course 3
I never acted as a teacher	6%	12%	12%
Between 1 and 2 years	4%	4%	5%
Between 2 and 5 years	6%	8%	7%
Between 5 and 10 years	10%	13%	10%
Between 10 and 15 years	15%	13%	16%

Between 15 and 20 years	12%	14%	15%
Between 20 and 30 years	20%	11%	17%
More than 30 years	8%	15%	4%

Source: The authors

Based on the analyzed data, it is understood that the quantitative aspects of the 3 MOOC courses presented a similar distribution of the percentages related to the 4 attributes analyzed regarding the profile, indicating a sequence of participation of the same subjects in the courses, although this correlation has not been investigated in the graduates.

5.2. Teachers' perception of the impacts of the pandemic on teaching practice

In this analysis, a total of 486 professors-courses responded about how they perceived the impacts of the pandemic on their teaching practice. Below, some aspects that represented their ideas during the period of participation in the courses.

In course 1, when we asked if they were already working in face-to-face teaching with the use of technologies, the percentage of 68% that used it and 32% that did not use it was obtained. However, the vast majority, 93.6%, showed that they believe that the experiences in remote teaching that they are having during the pandemic will lead them, in the future, to use technologies more to support face-to-face teaching. And more than 80% of teachers responded that they will use new ways to innovate classes with the support of technologies in their work routine.

Below are some reports of perceptions of teachers who participated in course 1, collected from the open responses on how the course could contribute to their teacher training:

- Believes he needs to learn more to use online collaboration and interaction tools to teach students better;
- I would like to learn new pedagogical practices, and the use of new technologies;
- Believes he needs to participate in more teacher training;
- Participation helped him to be more adapted to the new realities he is currently facing as a teacher, in these times of pandemic.
- Believes he spends more time preparing and planning lessons now during the pandemic than I did preparing for my face-to-face lessons.

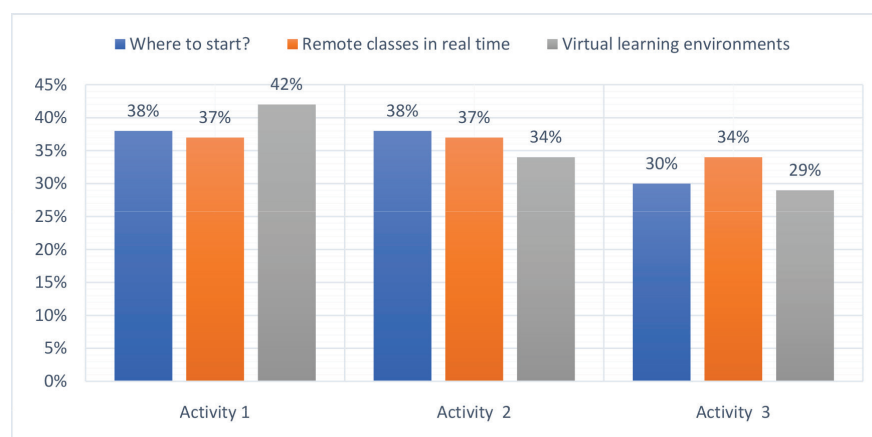
In course 2, the question was whether they knew enough about the synchronous tools needed to adapt their classes for remote teaching. Most (62%) responded disagreeing with the statement that they knew enough about technologies to teach classes in real time, and 91.2% needed to learn to use synchronous communication tools to teach my students more quality in times of a pandemic. Already 80% of teachers stated that they wish to continue using synchronous communication tools (chat, web conferencing, live, etc.) when returning to face-to-face activities to support classes.

5.3 Analysis of participation and evaluation in MOOCs

In the evaluations, the course participants highlighted the quality of the different communication channels (audio, video and text), so that the environment was configured to serve the different users, thus expanding the opportunities for participation. The course participants had the support of a tutor.

The participation of course participants enrolled in each of the three activities proposed in the courses is described in Table 1, with percentages between 30 and 40% depending on the course and proposed activity.

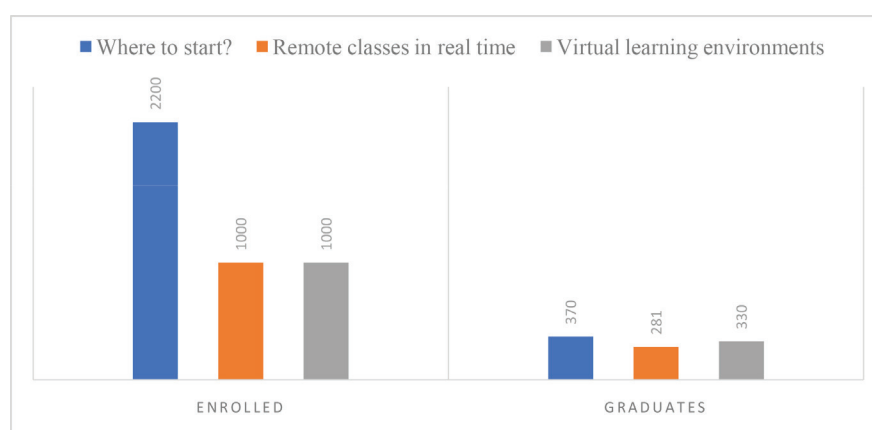
Graph 1: Distribution of participation in activities in the 3 MOOCs.



Source: Prepared by the authors

According to Graph 1, it is observed that the course “Remote classes in real time” had a greater participation in activity 1 than the other courses. In activity 2, the course “Where to start” had greater participation than the others and in the last activity, the course with the highest participation was the “Virtual learning environments”, as well as the course with the highest number of certificates issued.

Chart 1: Distribution of the total number of applicants and graduates in the 3 MOOCs.



Source: Prepared by the authors

The percentage of graduates, between 17 and 33%, and the participation rates in activities, between 30 and 40%, can be considered within the normal range for courses in MOOC format (Goshtasbpour, Swinnerton, & Morris, 2020). This demonstrates that the courses were not only attractive to professors, due to the high number of students enrolled, but that they voluntarily engaged in the activities proposed to complete the courses, a fact that reinforces that the characteristics of the online courses really had a connectivist proposal (Siemens, 2005).

5.4 Evaluation of the effectiveness of the continuing teacher education project

With the objective of evaluating the perceptions of the course participants in relation to the effectiveness of the learning environments of the three courses of the project, they were asked to answer the following question - What is their perception regarding their cognitive presence in the VLE?

Frame 1 – Self-perception of the students’ cognitive presence in the VLEs of the course.

Alternatives to the answer	% positive responses – agree or strongly agree
The quality of the environment encouraged me to explore content, activities and resources in order to successfully complete the course	74%
The organization of the environment was the triggering factor to search for the contents and how to solve the problem of transposing the classroom teaching to the remote	23%
The organization of the environment did not meet my expectations, so I was discouraged and with little participation	2%
The few opportunities to receive formative feedback was a major factor in my poor performance	1%

Source: Autores

The higher index indicates that, in the perception of the course participants, there was a good cognitive presence of the course participants while using the VLE of the courses, in which the participants consider the possibilities of communication between the subjects in the course and the construction of meanings about the contents and tools, characteristics of promoting a connectivist learning environment.

Regarding the characteristics of a VLE with good quality, among those presented in the course, the respondents listed with the highest percentage (58.33%) the item “the quality of the selected content and adequate to the target audience”, whereas the item “intuitive navigation and pleasant graphic design” got 29% and “interactive and collaborative activities” was the highlight for 12% of respondents.

Seeking to understand a little better how the course participants perceived the courses in this case study, we made the following statement available in a survey: “The continuing education courses offered by the Cecierj Foundation Extension helped me to be more adapted to the new realities that I am currently facing as a teacher, in these times of quarantine.”. We obtained the agreement of 79% of the teachers. Regarding the continuity of continuing education, we pose the following question: “The continuing education courses offered by the Cecierj Foundation Extension can contribute even more to teacher training in the face of new social realities in times of quarantine.” we got 95% agreement.

Among the points of view of the subjects who participated in the MOOCs of the CECIERJ Foundation Contributions for Emergency Remote Teaching project, we can highlight:

As experiências com as ferramentas síncronas estão contribuindo para que eu come in the future to adopt them constantly in my face-to-face classroom. The technologies I have been using are: WhatsApp (I use it for individual and group conversations), Google Meet and Collaborate (for academic meetings), Google Forms (for creating assessments, simulations and surveys in digital format), Moodle platform.”

In this example, the course participant cites the technological tools that he learned in the course and that he is using to teach his classes in remote teaching, already signaling that he intends to use them in his face-to-face classes. In this direction, follows the course participant’s report in the extract below.

This is a path of no return, synchronous and asynchronous teaching will be part of the learning structure. Regardless of face-to-face feedback, I will continue the learning process to improve the teaching process. The reality is that we don’t know if this pandemic will be unique or similar situations will happen in

the future, it is an obligation for those who work in education to be prepared. In general, I believe that the face-to-face future will be different and better, I could be wrong, but that's my opinion. I have observed the effort and attempt of the vast majority of people who militate with teaching in the search for knowledge, I hope that the return shows that I am right.

Some course participants made comments on aspects such as content, methodology, technologies and pedagogical organization of the project's courses. Below is one of the stories:

The course was of high quality, well-chosen didactic material and produced with high-value didactics for learning, easy to understand and with an instructional design that draws attention to the activities. Current and significant topics, videos with highly qualified and respected professionals in the academic environment. The forum as an asynchronous tool provided interesting discussions among the participants. It was an excellent choice given its flexible schedule and participation. Thank you for this opportunity to participate in courses of extreme importance for education professionals and students, in this atypical and difficult period we are going through. Congratulations to the entire team!

With regard to the testimonies of the course participants, these excerpts bring together a positive evaluation of the offer of continuing education for higher education teachers. As well, they reflect the importance of offering MOOCs at a time when teachers were looking for subsidies to prepare their classes, in addition to the appropriation and pedagogical possibilities with the use of technologies.

These results corroborate that the teacher often needs to participate in continuing education for the use of digital technologies, and that practices in emergency remote teaching are possibilities for new practices in a networked digital education concept (MOREIRA; HENRIQUES, BARROS, 2020).

6. Conclusions

Public higher education, in times of a pandemic in universities, was challenged and needed to reorganize its pedagogy to offer classes at the ERE. In general, the universities started from what had been planned to be carried out in the face-to-face modality, adapting to the new teaching modality defined as ERE. In this sense, the experience of teachers who already worked in the DE area was significant to distinguish the characteristics between the DE and ERE modalities.

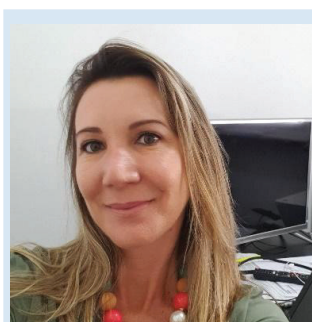
Regarding the profile of those enrolled in the courses of the present study, continuing education received the highest percentage of higher education professors, with a master's or doctoral degree. It is noteworthy that the majority worked in the public network, with more than 10 years of teaching experience, and already made use of some technology in their classes. These data suggest that teachers sought to improve the quality of their practice, as well as learn new digital technologies, to teach at the ERE.

The concern of higher education professors to ensure quality standards in the teaching and learning processes during the ERE was a unique opportunity to seek other ways of doing and living the learning experience, accompanied by problematizations about how to teach and learn. . The results of the present case study in relation to the number of teachers enrolled and graduating from the courses show that there were really many university professors in the state of Rio de Janeiro in search of this type of on-line continuing education action.

Regarding the perception of teachers regarding the impacts of this period of the pandemic on their teaching practice, most showed to believe that the experiences in remote teaching that they are having during the pandemic will lead them, in the future, to use technologies more to support face-to-face teaching. , despite recognizing that they did not know enough about all the technologies. They also reported positive aspects regarding the manifestation of their cognitive presence when using the VLE of the courses.

On the other hand, the comments and positive evaluations by the course participants about the project reveal that the action of continuing teacher education was very effective with the dissemination and dissemination of new didactic proposals with the use of new technologies for higher education teachers in the state of Rio de Janeiro. January. It is expected that a better understanding of the foundations and purposes of online teaching, as well as an understanding of the main tools to promote teaching with shared technologies during the course, have expanded the possibilities of using online tools in the various areas of knowledge within of public universities, including the incorporation of new didactic practices with the support of educational technologies even after the pandemic.

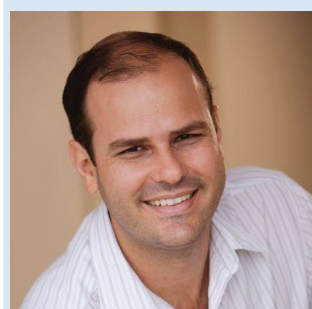
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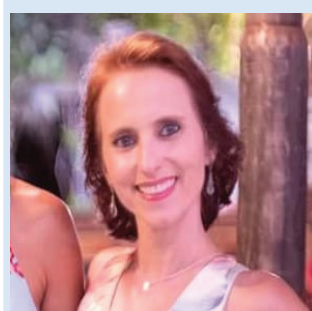
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