

Negotiated Didactic-Pedagogical Replanning In Times Of Pandemic: A Case Study At A Public University

Replanejamento Didático-Pedagógico Negociado Em Tempos de

Pandemia: Um Estudo De Caso Em Uma Universidade Pública

Replanificación Didáctica-Pedagógica Negociada En Tiempos de

Pandemia: Un Estudio De Caso En Una Universidad Pública

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ABSTRACT: *This article discusses the didactic-pedagogical replanning process in the context of the Covid-19 pandemic, taking as an object an experience developed in an undergraduate course in Geography. This is a case study that seeks to present the challenges experienced in the Methodology of Geography Teaching I and II disciplines and the ways of rethinking the proposals, based on a detailed survey, using forms, about the students' profile, challenges, and difficulties, suggestions for replanning and the reception of students to the changes made. It combines quantitative and qualitative methodologies, enabling a deeper analysis of the investigated phenomenon. It is concluded that the context of health crisis and social distance has produced an accumulation of challenges of various kinds and an assertive way to overcome these challenges is to adopt a dialogical and critical stance towards the reality in which we are living, seeking to establish the development of negotiated replanning.*

TEACHER TRAINING. REMOTE EMERGENCY TEACHING. HIGHER EDUCATION. PANDEMIC. DIDACTIC-PEDAGOGICAL PLANNING.

RESUMO: *Este artigo aborda o processo de replanejamento didático-pedagógico no contexto da pandemia de Covid-19, tomando como objeto uma experiência desenvolvida em um curso de licenciatura em Geografia. Trata-se de um estudo de caso que busca apresentar os desafios vivenciados nas disciplinas de Metodologia do Ensino de Geografia I e II e as formas de equacionamento das propostas, a partir de um levantamento detalhado, por meio de formulários, acerca do perfil dos alunos, desafios e dificuldades encontradas, sugestões de replanejamento e a recepção dos estudantes frente às modificações realizadas. Combina metodologias quantitativas e qualitativas, possibilitando uma análise mais aprofundada sobre o fenômeno investigado. Conclui-se que o contexto de crise sanitária e distanciamento social tem produzido um acúmulo de desafios de diversas ordens e uma forma assertiva para superar esses desafios é adotar uma postura dialógica e crítica frente à realidade na qual estamos vivendo, buscando estabelecer o desenvolvimento de replanejamentos negociados.*

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FORMAÇÃO DE PROFESSORES. ENSINO REMOTO EMERGENCIAL. ENSINO SUPERIOR. PANDEMIA. PLANEJAMENTO DIDÁTICO-PEDAGÓGICO.

RESUMEN: Este artículo analiza el proceso de replanificación didáctico-pedagógico en el contexto de la pandemia Covid-19, teniendo como objeto una experiencia desarrollada en un curso de grado en Geografía. Se trata de un estudio de caso que busca presentar los retos vividos en las disciplinas I y II de la Metodología de la Enseñanza de la Geología y las formas de resolver las propuestas, a partir de una encuesta detallada, mediante formularios, sobre el perfil de los estudiantes, retos y dificultades encontradas, sugerencias para la replanificación y cómo los estudiantes evalúan los cambios realizados. Combina metodologías cuantitativas y cualitativas hacia un análisis más profundo. Se concluye que el contexto de crisis de salud y distanciamiento social ha producido una acumulación de desafíos de diferente orden y una manera asertiva de superar estos desafíos es adoptar una actitud dialógica y crítica hacia la realidad que vivimos, buscando establecer el desarrollo de la replanificación negociada.

FORMAÇÃO DE PROFESSORES. ENSEÑANZA REMOTA DE EMERGENCIA. ENSEÑANZA SUPERIOR. PANDEMIA. PLANIFICACIÓN DIDÁCTICO-PEDAGÓGICA.

Introduction

In times of pandemic, it is undeniable that educational practice was one of the human activities most affected in several aspects. Despite the short time span, several academic works have sought to understand this phenomenon. This paper intends to contribute to the effort to build knowledge about this theme.

We present here a research that starts from detailed empirical data on a university teaching experience, aiming to answer questions such as: What are the characteristics and challenges experienced in this context of teacher education? Which aspects allow us to scale these challenges for the construction of a didactic-pedagogical re-planning negotiated in the transition from face-to-face to emergency remote teaching? What are the factors that permeate the teaching practice in this context?

Therefore, it is convenient to carry out a proper contextualization of the scenario in which the didactic and pedagogical experience discussed here took place. The year 2020 was marked by the Covid-19 pandemic. Cases of this disease have reached almost all countries. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2021), more than 1.5 billion students were affected by the closing of schools and universities to contain the spread of the disease.

In this context, the Digital Information and Communication Technologies (DICT) were seen as the main tools for the continuity of the teaching-learning process. In Brazil, the Ministry of Education (MEC) established ordinance No. 544, of June 16, 2020 (Brazil, 2020), which provides for the replacement of classroom classes by classes in digital media during the pandemic.

Thus, to ensure the continuity of the school year, the University of São Paulo (USP) has established new guidelines. USP recommends the use of DICT that enable contact between professors and students. Thus, after a period of stoppage, classes were resumed with the characteristics that came to be conceptualized as Emergency Remote Teaching (ERT).

The term ERT was coined in 2020 by researchers in the field of Distance Education (DE) who sought to distinguish DE from the new model created in the pandemic. Without the equivalent planning and instructional design to be online, ERT emerges as an alternative to face-to-face teaching in the current crisis situation. "Thus, the objective of the ERT is not to create a robust environment for online teaching, but to provide totally remote teaching solutions, which would be taught in person and will temporarily be offered online" (Silus, Fonseca & Jesus, 2020, p. 3, our translation).

Given the above, this article deals with the challenges faced in the teaching practice of higher education in two disciplines for initial teacher education at the Faculty of Education of the University of São Paulo (FEUSP). We will analyze the disciplines Methodology of Teaching Geography I and II

(MEG1 and MEG2). The objectives of this work are: i) to present the challenges faced and the didactic-pedagogical re-planning made in the disciplines throughout this ERT experience; and ii) reflect on the teaching practice in this period.

This is a case study that aims to present an experience of offering these disciplines during the two semesters of 2020, under a quali-quantitative approach to understand the social phenomenon observed in different aspects. The construction of data was based on the Freirean approach, considering that teaching requires research and understanding of reality, it demands knowing how to listen, it requires an availability to a dialogue that respects the autonomy of the student's being (Freire, 2016). The analysis of the results took into account the concepts of the practical character of education (Severino, 2019) and the biopsychosocial subject (Arias Beatón, 2019). Recognizing the importance of combining theory and practice, we intend to show throughout the article how this understanding of the human being, as a biopsychosocial subject, is something that the pandemic has exposed, showing the presence of such theoretical elements in the training experience reported and analyzed here.

We organized the paper in two sections: 1) Methodological and Technical Procedures, in which we detail the procedures adopted for the development of this research and 2) Training Teachers in Times of Pandemic: Trajectories, Results and Discussion, in which we present how the adaptations were made along the way, showing the results achieved and discussing the difficulties and lessons learned.

1 Methodological and Technical Procedures

This paper consists of an empirical research that investigated the development of an educational practice in the context of teacher education. In this work, we use mixed methods as methodological procedures because we consider the importance of complementary perspectives, that is, because we recognize that a survey that combines both qualitative and quantitative characteristics allows a broader and deeper analysis of the investigated phenomenon (Bryman, 1992 cited by Flick, 2009). In this sense, we take the mixed methodology as a type of research design that incorporates qualitative and quantitative approaches in the stages of elaboration of research questions, data collection, analysis and/or inferences (Tashakkori & Teddlie, 2009). According to Alonso (2016), the mixed approach has become a trend in contemporary research in studies aimed at phenomena of a social nature.

The research comprises a case study that, according to Gil (2010, p. 37, our translation), “consists of the deep and exhaustive study of one or more objects, in a way that allows their broad and detailed knowledge”. Ventura (2007, p. 384, our translation) highlights that this type of study “aims at the investigation of a specific, well-defined case, contextualized in time and place so that a detailed search for information can be carried out”. According to Yin (2001, p. 19, our translation), “case studies represent the preferred strategy ... when the researcher has little control over events and when the focus is on contemporary phenomena inserted in some real-life context”.

1.1 Data Construction

By following this process, we obtained both qualitative and quantitative elements that allowed us to analyze the development of these disciplines and our teaching practice throughout 2020. This work is based on the construction of primary data. Immediately after the suspension of classes, the training teacher requested the delivery of activities by email in order to maintain some kind of contact with the students, a situation in which we pay attention to the return rate for delivering the activities. The data construction became more systematic when we were convinced that we were in an extremely serious health situation and, therefore, the first half of 2020 would not be resumed in the face-to-face mode until the situation was alleviated - more details about this are presented in the next section of this article.

With the news that the semester would have to be resumed in virtual format, we created a

questionnaire like “Google Forms”, which we will call Form 1 (F1). Applied to those enrolled in MEG1, the purpose of F1 was to survey the profile of students and their academic, social/family, technical (equipment and internet) and psychological conditions to continue with the course in that period. F1 was composed of 10 closed questions (CQ) - 9 of which multiple choice and one of check boxes - and 4 open questions (OQ), which guided the resumption of the discipline.

At the end of the first semester, in order to assess the students' reception regarding the adapted format of the classes, we prepared another questionnaire with 19 CQ and 6 OQ, which we will here call Form 2 (F2). This questionnaire model was applied in both semesters, with slight adaptations from one to the other, in order to meet the respective specificities. The form applied in the second semester is called Form 3 (F3).

F2 and F3 were composed of sections related to the program, activities and assessment methods, the mandatory supervised internship and the attitude of the professor and monitors. For these questionnaires, we used a different strategy in the CQ: we used Likert scales, which present as alternative answers ordinal categorical variables in gradations in the form of “strongly agree, partially, fully disagree, partially” (Lima, 2016, p. 20, our translation). For this case study, we used a scale from 1 to 5, with 1 corresponding to “totally disagree” and 5 to “totally agree”. For each section addressed in the questionnaire, we added an open question so that students could also comment on each topic investigated to avoid being limited only to the available expression possibilities or, even, so that they could justify their previous answers. In addition, we performed OQ related to the general assessment of each semester, as well as comments on aspects of the student experience during the pandemic, suggestions and criticisms.

An agreement established between USP and the company Google (G Suite) allowed us access to additional features of Google Meet, such as class recording and connectivity reports. Thus, we were able to survey the number of students who attended the course and quantify the drops in connection.

1.2. Data Analysis

From the survey of adherence to activities by students, application of questionnaires and detailed reports from Google Meet, it was possible to obtain quantitative and qualitative data, and develop a quali-quantitative analysis.

Quantitative data were processed in the Microsoft Office Excel program, version 365. Through these resources we were able to obtain various information related, for example, to the absolute and relative quantitative of people who answered the questionnaires, followed the classes, enrollment cancellations, dropouts, connection losses, among other factors that measure quantities and proportions related to the observed phenomena.

Qualitative data were processed in the NVivo software, with which we generated word clouds (a resource that ranks the frequency of words, displaying them visually and proportionally) and coded the responses, which helped us in the construction of categories - methodologically based procedures in Content Analysis (Bardin, 2011).

When reporting the development of a training practice in pandemic contexts, highlighting the challenges faced and developing an analysis of the teaching practice in this scenario, we did so based on an analysis of the data produced in the empirical research taking as theoretical reference the ideas of Severino (2019, p. 43, our translation) when the author highlights the “practical character of education” stating that more than an action, doing education is acting consciously, “it is an intentional practice”. We start from the premise that both students and teachers are “empirical beings, natural and social entities, historical entities, determined by objective conditions of existence”, but that, mainly, “when acting, they permanently interact with these conditions, modifying them by their praxis.” (Severino, 2019, p. 43, our translation).

Another theoretical lens is to conceive pedagogical practices under a Vygotskian-inspired Historical-Cultural approach, that is, we understand that the human being constitutes and is constituted by his actions in the midst of social and interpersonal relationships. Considering that

Covid-19 threatens our biological, psychological and social integrity, compromising the maintenance of study, work and other activities, we understand the importance of analyzing this process so as not to fragment the biopsychosocial dimensions, as defended by Arias Beatón (2019).

2 Training Teachers in Times of Pandemic: Trajectories, Results and Discussion

In 2020, the disciplines MEG1 and MEG2 had two monitors who supported the carrying out of activities and the development of a re-planning of disciplines, adapting them to the ERT. For MEG1, two groups were offered, one in the afternoon and the other in the evening. The semester started on February 18th and was scheduled to end on July 2nd, totaling 17 classes of three to four hours per week for each class.

With the confirmation of the beginning of what seemed to be a brief outbreak of the new coronavirus in Brazil, the first attitude was immediate suspension of classes until an understanding of what was really happening, in the hope that it would be something fleeting. We had only three in-person classes and on March 13, there was a statement from the Rector that indicated the suspension of classes for an indefinite period.

From this, a great debate began at USP regarding the continuation or not of the school semester through the use of virtual tools or platforms, in this context that we take the ERT as an alternative for the continuity of the courses. However, this modality was also a problem, as it could increase inequality among students, because migrating courses to virtual environments could mean that students do not have the same opportunities to access the internet.

FEUSP was initially against the ERT, but, recognizing that the disease was extremely contagious and serious, recommended that the professors maintain some form of contact with the students, requesting non-mandatory activities so as not to interrupt their studies for a long time. For 10 weeks, activities were delivered in this way, until the official resumption of the discipline remotely.

At the beginning of the MEG1 semester, we had 42 enrolled in the afternoon and 44 in the evening, totaling 86 students. During this period of delivery of activities by email, there was a big difference between the groups. In the afternoon, 52.4% delivered the activity of the first week, while in the evening only 28.6%. These percentages were reduced over the weeks, reaching the tenth week with only 4.8% of the class in the afternoon and 0% in the evening.

On May 5th and 11th, we held meetings with the groups to talk about doubts, anxieties, activities, etc. 38.6% of students participated on the first day and 56.8% on the second. From these conversations, we elaborated the F1 with the objective of making a survey of the students' profile to evaluate the following questions: number of disciplines that they were studying; whether they were engaged in any paid activity and under what conditions; if they were managing to make social distancing; with how many people were sharing their residence; whether they had computer and internet access; if they are part of the risk group; challenges they have faced during the pandemic; greater concerns about discipline; contact form preferences; and suggestions for didactic-pedagogical re-planning.

Between May 11th and May 19th, among the 86 students of the two periods, 48.8% answered the F1. Of the total number of respondents, in relation to the CQ, 64.3% declared themselves enrolled in three or more disciplines and 71.4% informed that they were developing paid activities at home. These data help us to measure the mental and physical load to which the students were submitted, considering that not all of them had adequate structure to carry out home offices.

As for social distancing, 97.6% were doing it fully and 2.4% only partially; 14.3% informed that they belonged to the risk group. As for housing, 64.3% live with 3 to 5 people and 28.6% with one person. This shows that quarantine was feasible and few students belong to the risk group, but we emphasize that there was a concern with family members who continued to work in person, which implied a situation of constant risk. Regarding equipment, 64.3% had a personal computer, 33.3% shared it with other people and 2.4% did not. Thus, by gathering data on sharing housing and equipment, most students shared environments and/or work/study equipment. Considering that online classes demand quality equipment and internet, as well as an environment with privacy and

silence, it is noted that most did not have material and/or emotional conditions favorable to the ERE. As for easy access to the internet, 90.5% answered “yes, through their own computer or notebook” and 4.8% that they have limited access. It is noted that access to the internet was not a problem for respondents - although these data do not represent the 51.2% who did not respond to the questionnaire, on the other hand, at the end of MEG1, we observed that, in addition to the F1 respondents, 15 more students completed this discipline.

As for the ways to contact the class, given the checkbox options “groups on WhatsApp, Telegram, Videoconferences on Google Meet and others”, 71.4% preferred Google Meet and 57.1% preferred WhatsApp. Thus, we use these two means of communication, in addition to email, in carrying out the disciplines.

Regarding the F1 OQ, from the floating reading of the answers, we coded and created analysis categories for each investigated aspect. Tables 1 to 3 present the corresponding questions, categories, subcategories and number of answers; and Figures 1 to 3 show the respective word clouds for each question.

Table 1: Presentation of categories, subcategories and number of answers to the question about the challenges faced by students during the pandemic.

Challenges faced in the Pandemic	
Category/ Subcategory	Quantity
1. Routine Change/Maintenance	51
1.1. Study Routine	18
1.2. Social Distancing	8
1.3. Work Routine	8
1.4. Family Relationship	6
1.5. Physical Space	5
1.6. Physical Activities Routine	4
1.7. Biological Time	2
1.8. Household Chores	1
2. Mental Health	16
3. Financial Issues	7
4. Physical Health	7
5. Impairment in teaching-learning	4
6. Others	6
6.1. Political Issues	2
6.2. Student-Teacher Relationship	2
6.3. Internet Access Problems	2

Figure 1: Word cloud that proportionally presents the ranking of the 20 most frequent words in the answers to the question about the challenges faced by students during the pandemic.



Table 1 presents the six categories created for the question related to the challenges that students have faced during the pandemic. The category “Routine Change-Maintenance” was the one that stood out the most, representing a content that was mentioned 51 times in the responses. As it was the most significant category, we noticed several nuances. So we created eight subcategories of which “Study Routine” was the most present, appearing 18 times. Some examples: "difficulty in finding study material", "in concentrating to carry out academic activities", "reconciling work activities with undergraduate activities", "being able to study purely at home" and "it has been a great challenge to establish a routine and focus on fulfilling all the necessary tasks". "Mental Health" was the category that appeared in second place, with a frequency of 16 times, with passages such as: "the issue of maintaining mental health is increasingly difficult", "general discouragement", "anxiety of staying in home and away from my daily work, college, friends", and "keeping control of negative thoughts". In the word cloud, it is noted that the words that presented the highest frequency were “home” and “work”, summarizing the current context of home office. From the data in Table 1 and Figure 1, we can infer that maintaining routines (study, work and other activities) demands mental health, which was compromised by social distancing.

Table 2: Presentation of categories, subcategories and number of answers to the question about the biggest concerns of students related to the discipline.

Concerns related to the discipline	
Category/ Subcategory	Quantity
1. Bureaucratic-Formal Issues	58
1.1. Activities/ Evaluation	15
1.2. Internship	14
1.3. Semester Cancellation	8
1.3. Completion of the Geography Course	6
1.4. Attendance/ Grade Retention	6
1.5. Reposição de aulas	3
2. Fall in the Quality of Training	6
3. Study Routine	6

Figure 2: Word cloud that proportionally presents the ranking of the 20 most frequent words in the answers to the question about the biggest concerns related to the discipline.



In Table 2, we identify three categories. It is noted that the greatest concern of students in relation to the discipline is bureaucratic-formal, with 58 mentions that deal with this theme. This category can also be represented in the word cloud that highlights the lexicons “achieve”, “year”, “internship” and “activities” as the major concerns mentioned literally. In this first category, we created five subcategories, with the activities and form of evaluation appearing first, with a frequency of 15 times. The students pointed out concerns such as: "whether there will be flexibility in deadlines", "being able to deliver the activities and not failing" and "not being able to focus to read all the texts and carry out the activities, lack of a printer to be able to read the printed texts". Second, we have the internship subcategory as one of the biggest concerns: "the internship workload, whether we will have to replace it in the next semesters", "how will the discipline be developed, activities, presence, internship issues" and "how the internship experience will be in front of the scenario". However, one student had a different concern in relation to the internship: "as an important part of teacher training, not having contact with the physical school space has been difficult", something that meets the second category that expresses a concern with fall in the quality of training. Other excerpts that show this aspect are: “the apprehension of the course content, on how to have an enriching learning in this format”, “I worry about the knowledge gap” and “managing to develop a study that this discipline deserves”. It is noted that the concerns of students regarding the discipline are manifested more through bureaucratic-formal issues than under formative-subjective aspects per se. Taking this fact from a pedagogical perspective, the relevance of administrative decisions in the lives of students is evident, especially in times of uncertainty, requiring us to observe the importance of management and didactic deliberations also as an issue that involves power relations, beyond of its theoretical-practical dimension. This confirms the importance of didactic-institutional decisions being built on principles of democratic management.

Table 3: Presentation of categories and number of answers to the question about the discipline re-planning suggestions.

Discipline Re-planning Suggestions	
Category	Quantity
1. ERT	17
1.1. Resume classes remotely	5
1.2. Maintain the current dynamic (Reviews via email)	5
1.3. Hold sporadic meetings	3
1.4 Recordo classes and make them available on Moodle	2
1.5. Video Lessons on Moodle	1
1.6. Tests on Moodle	1
2. Flexibility in the delivery of activities, inclusion of grades and attendance	13
3. Count and contact people with difficulty accessing the internet	3
4. Others	2
4.1. Discuss issues related to the pandemic	1
4.2. Group Activities	1

Figure 3: Word cloud that proportionally presents the ranking of the 20 most frequent words in the answers to the question about the discipline re-planning suggestions.



Table 3 presents four categories identified in the students' suggestions. The category with the highest frequency was "ERT" (17 times), with six subcategories. In second place was the category "flexibility in the delivery of activities, inclusion of grades and attendance" (13 times). Some examples: "I think the best way is to continue the discipline activities remotely as has been done in other departments", "I believe there is not much to do at the moment, however, continuing the records and holding meetings sporadically helps to have an idea of what is going on at FEUSP", "as the tendency is that we will stay this year and the next in social distance, I believe that somehow we need some classes on the meet without requiring the presence of those who cannot participate, some online classes will be necessary to consolidate the debates on the texts and close the discipline" and "I suggest the course of the discipline in a virtual way, but without the overload of weekly activities delivery". The terms "continuity", "activities", "possibilities", "students" and "discuss" stand out in the word cloud. With Table 3 and Figure 3, we can infer that most students intended to continue their activities in the form of the ERT, also claiming the possibility of discussing/negotiating a more flexible way of conducting activities and evaluative criteria. A demand for DICT is explicit as a strategy for the continuity of the discipline, but added to a negotiated didactic-pedagogical re-planning. It is also

possible to identify that there is a solidary concern brought in the category “counting and contacting people with internet access difficulties”, however, to a lesser degree (3 times).

In view of the seriousness of the situation and with no prospect of ending the pandemic, as we approach two months of social distance, FEUSP prepared a plan to reorganize the graduation calendar and actions for 2020. The document aimed to point out possible ways and means of resumption of training activities at FEUSP, so that each teacher with their classes had the freedom to replan the disciplines, respecting the different contexts and realities. In relation to curricular internships (one of the main concerns of students), which took place mainly in schools, the document presented several alternatives for its realization.

Based on the proposals outlined in this institutional document and the challenges, concerns and suggestions mentioned by the students in F1, the teacher scheduled two videoconferences to talk about the resumption of MEG1. From that, we adopted the following directions: 1) Use of USP Moodle as a support platform for classes; 2) Reduced weekly workload from 3 to 4 hours to an average of 1 hour and 30 minutes; 3) Reduction of the number of activities from 10 to 5 reviews; 4) Posting activities on Moodle; 5) New calendar consisting of five meetings to talk about some texts and with public school teachers about the situation of the ERT; 6) Delimitation of the internship theme: “Remote teaching in the context of the pandemic”, with the report in the format of a reflective essay; 7) Creation of a WhatsApp group; and 8) Presence computed through the delivery of the reviews and the report.

MEG2 also needed to be drastically reformulated, mainly due to the impossibility of carrying out the Study of the Milieu experience in the Paraíba do Sul Paulista River Valley. The academic semester took place from September 15th to November 24th, totaling 11 classes. As in MEG1, the teacher reduced the amount of required readings, as well as reviews. MEG2 was offered to only one class in the evening period and we had a total of 60 enrolled.

After completing the disciplines, we analyzed data, obtained through the Google Meet connectivity report, referring to the number of students who were able to attend classes synchronously; type of device used and amount of connection losses. With the completion of the process, we also analyzed the number of enrollment cancellations, of graduates and non-graduates (remedial tests and withdrawal). In Tables 4 and 5 it is possible to identify the differences that occurred between the classes.

Table 4: Comparison of Google Meet reports of MEG1 evening and afternoon classes.

MEG1 - AFTERNOON				MEG1 - EVENING			
	Qtt. of Students	Qtt. of Students (%)	Connect ion Loss		Qtt. of Students	Qtt. of Students (%)	Connecti on Loss
Class 1	21	58,3%	33,3%	Class 1	15	45,5%	46,7%
Class 2	16	44,4%	18,8%	Class 2	12	36,4%	16,7%
Class 3	16	44,4%	31,3%	Class 3	13	39,4%	46,2%
Class 4	17	47,2%	41,2%	Class 4	8	24,2%	25,0%
Class 5	23	63,9%	4,3%	Class 5	17	51,5%	23,5%
Average	18,6	51,7%	24,7%	Average	13,0	39,4%	32,3%
Diversity of participants	29	80,6%		Diversity of participants	31	93,9%	
Initial Enrollment	42			Initial Enrollment	44		
Cancelled	6	14,3%		Cancelled	11	25,0%	
Final Enrollment	36	85,7%		Final Enrollment	33	75,0%	
Graduates	31	86,1%		Graduates	26	78,8%	
Did not Participate	7	19,4%		Did not Participate	2	6,1%	
Did not graduate	5	13,9%		Did not graduate	7	21,2%	

Table 4 shows some similarities as well as differences between the data from the two MEG1 classes. Regarding the similarities: classes 1 and 5 were the ones that had more students present, with greater attendance in the last one, which suggests a behavioral pattern; the diversity of participants (number of different people who participated in the five classes) is greater than the average attendance per class (approximately double), which shows an inconstancy of students in classes; and the number of enrollments at the beginning of the discipline is similar. As for the differences: in the evening there was practically twice as many enrollments were cancelled; the percentage of graduating students was higher in the afternoon (86.1% versus 78.8%), although the percentage of students who did not participate in the synchronous classes at all was higher in this class (19.4% versus 6.1%); and the diversity of participants in the evening was greater (93.9% versus 80.6%); as well as the average connection drops (32.3% versus 24.7%). The last two data are important for us to know the quality of teacher-student communication in the ERT because they mean, respectively, that there is an inconsistency in the presence (rotation) of students and, when they are present, approximately 30% of the students lose some part of the content of the class when your internet goes down.

Table 5: Comparison of Google Meet reports of the afternoon (A) and evening (E) classes of MEG1 in relation to the class of MEG2.

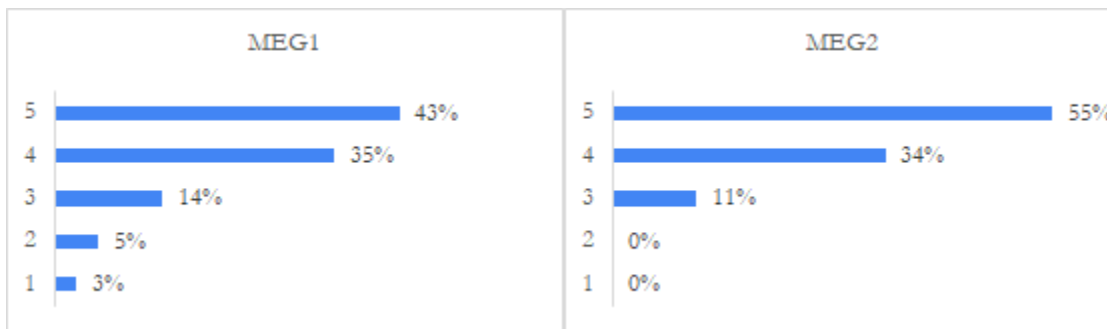
	MEG1 (A+E)			MEG2			
	Qtt. of Students	Qtt. of Students (%)	Connect ion Loss	Qtt. of Students	Qtt. of Students (%)	Connect ion Loss	
Class 1	36	52,2%	38,9%	Class 1	50	83,3%	46,0%
Class 2	28	40,6%	17,9%	Class 2	37	61,7%	32,4%
Class 3	29	42,0%	37,9%	Class 3	41	68,3%	26,8%
Class 4	25	36,2%	36,0%	Class 4	42	70,0%	40,5%
Class 5	40	58,0%	12,5%	Class 5	35	58,3%	31,4%
				Class 6	34	56,7%	35,3%
				Class 7	38	63,3%	21,1%
				Class 8	37	61,7%	24,3%
				Class 9	34	56,7%	32,4%
				Class 10	31	51,7%	38,7%
Average	31,6	45,8%	27,8%	Média	37,9	63,2%	33,2%
Diversity of participants	60	87,0%		Diversity of participants	57	95,0%	
Initial Enrollment	86			Initial Enrollment	60		
Cancelled	17	19,8%		Cancelled	0	0%	
Final Enrollment	69	80,2%		Final Enrollment	60	100%	
Graduates	57	82,6%		Graduates	54	90,0%	
Did not Participate	9	13,0%		Did not Participate	10	16,7%	
Did not graduate	12	17,4%		Did not graduate	6	10,0%	

In Table 5, it is noted that the only similarities between the MEG1 and MEG2 data refer to the diversity of participants being greater than the average attendance per class; and the number of people who did not participate in any live class (approximately 15%). Regarding the differences, we highlight that the difference between the initial enrollments demonstrates that the data show a significant distinction between absolute numbers, as MEG1 had two classes and MEG2 only one, and each class could have a maximum of 60 enrollments. In this way, we do not have criteria to articulate comparative meanings for initial enrollments, but since the other data are put in terms of percentage, we can make comparisons. Thus, we can highlight that the average percentage of students present in MEG2 was 63.2%, while in MEG1 it was 45.8%. In proportion to initial enrollments, the number of graduates was greater in MEG2. With the last two data we can infer that in the second semester the students were better adapted to the ERT routine. The biggest difference was from the point of view of enrollment cancellations, in MEG1 there was 19.8% and MEG2 this data was null.

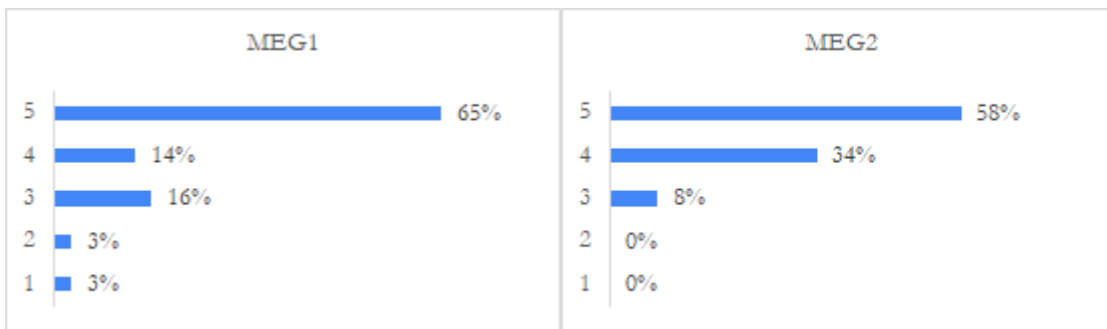
Finally, we elaborated F2 and F3 in order to obtain feedback from the students regarding the reception of the changes made in the disciplines. In these forms, we evaluated in the CQ (mostly via a Likert scale from 1 to 5), questions related to the discipline's program, activities, internship and the attitude of the teacher and monitors. We leave the OQ for students to make free comments on each of the themes and we ask them to evaluate the remote learning experience and point out suggestions, criticisms or other comments. In F2, we had a return of 65% and in F3 70.4% of the students who completed the discipline.

Graphs 1 to 15 show the comparison of students' responses to the same questions contained in F2 and F3 in statement format for collecting responses on the Likert scale.

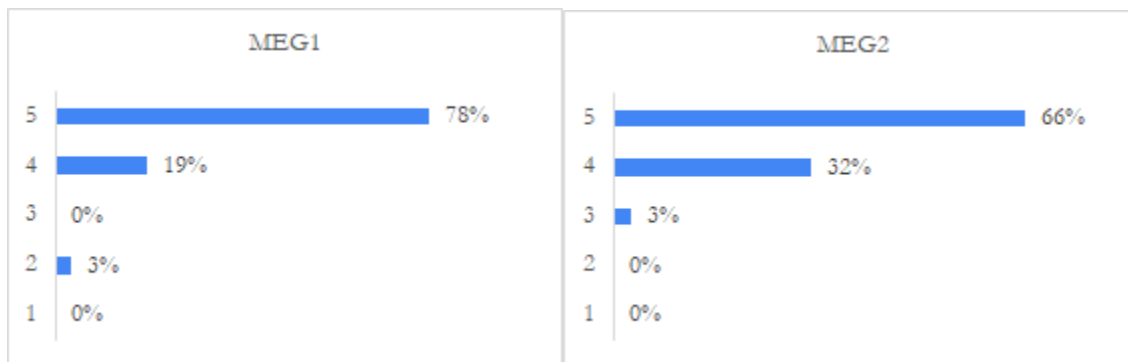
Graph 1: Answers to the statement: The redefinition of the program well covered important aspects of Geography Teaching and the context in which we are living.



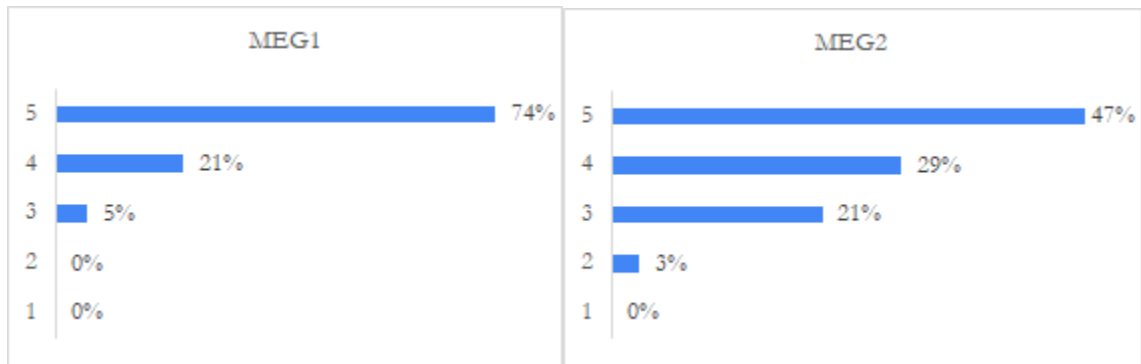
Graph 2: Answers to the statement: The mandatory reading texts were interesting and provided relevant information.



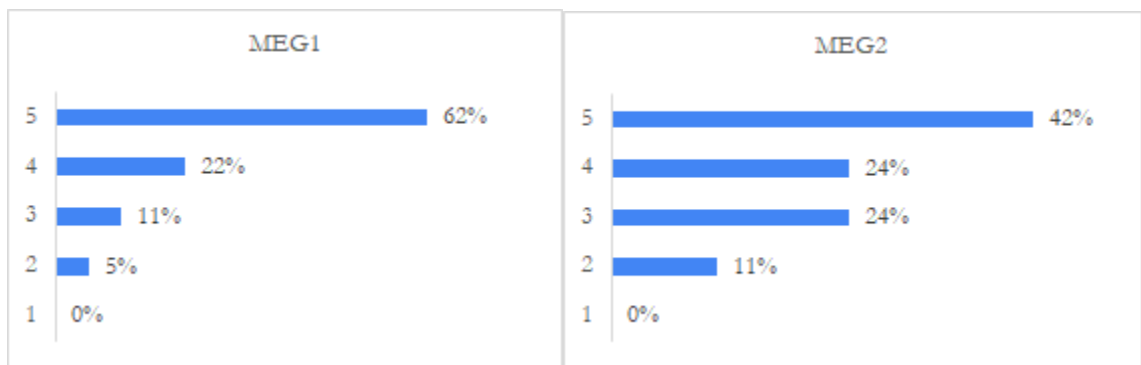
Graph 3: Answers to the statement: Classes with invited people were interesting and brought relevant information.



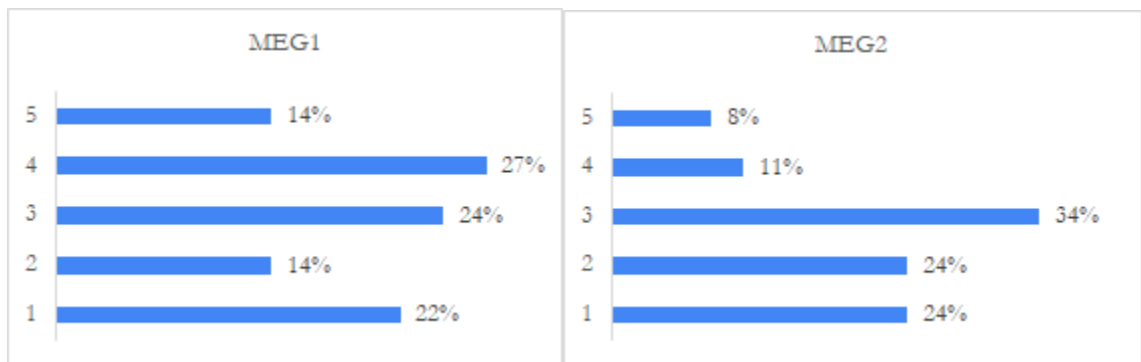
Graph 4: Responses to the statement: The redefinition of the number of reviews was satisfactory.



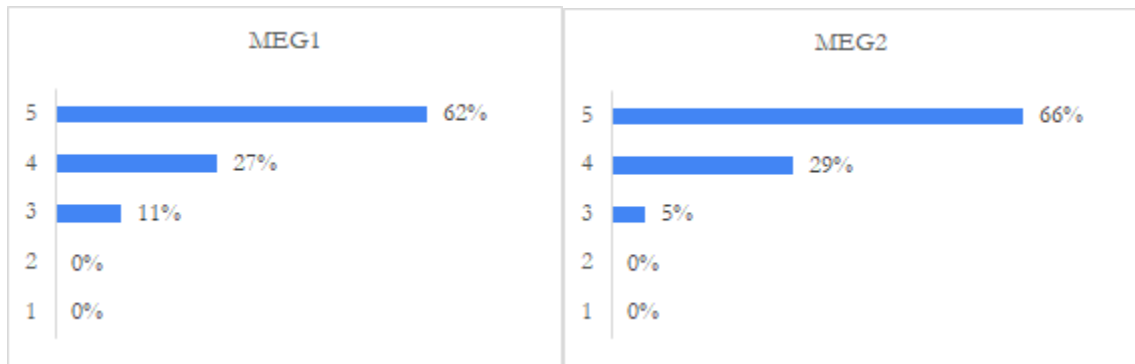
Graph 5: Answers to the statement: The production of reviews was a good strategy to encourage participation.



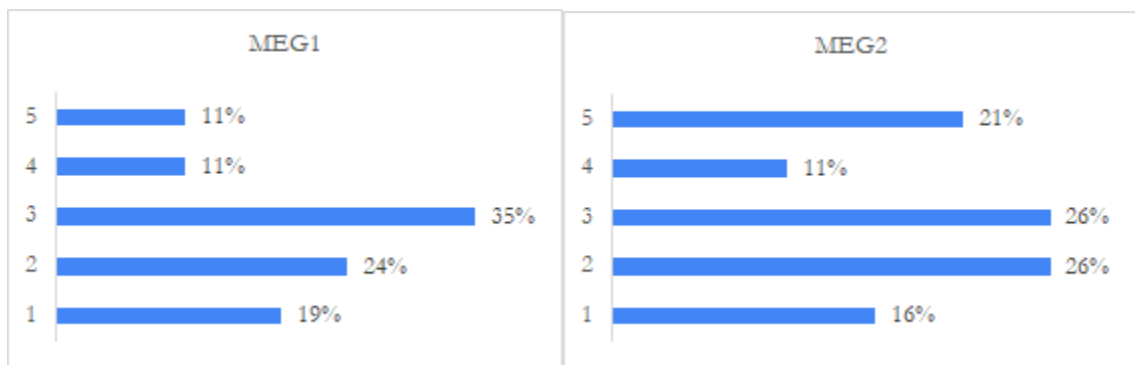
Graph 6: Answers to the statement: I had difficulty defining an internship observation focus.



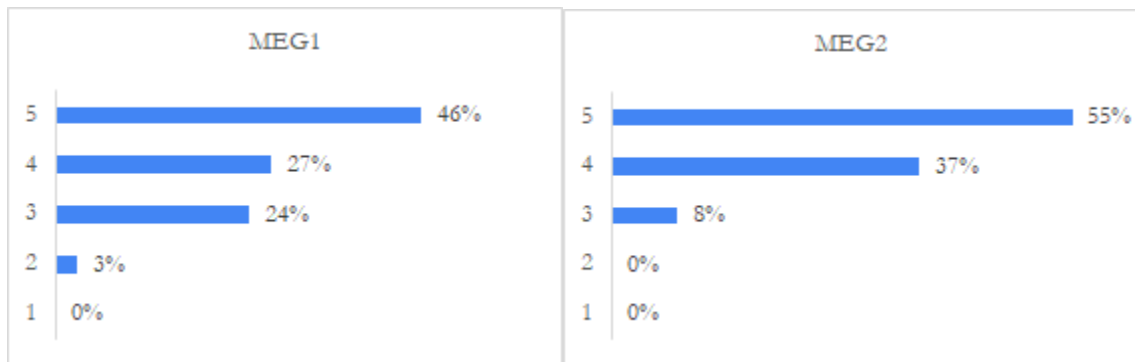
Graph 7: Answers to the statement: The guidelines for carrying out the internship were sufficient and satisfactory.



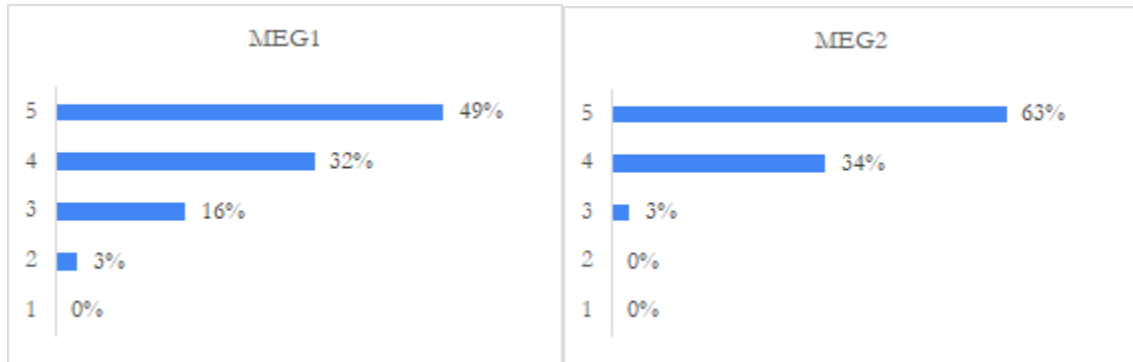
Graph 8: Answers to the statement: The internship experience in remote format was terrible and will compromise my initial training.



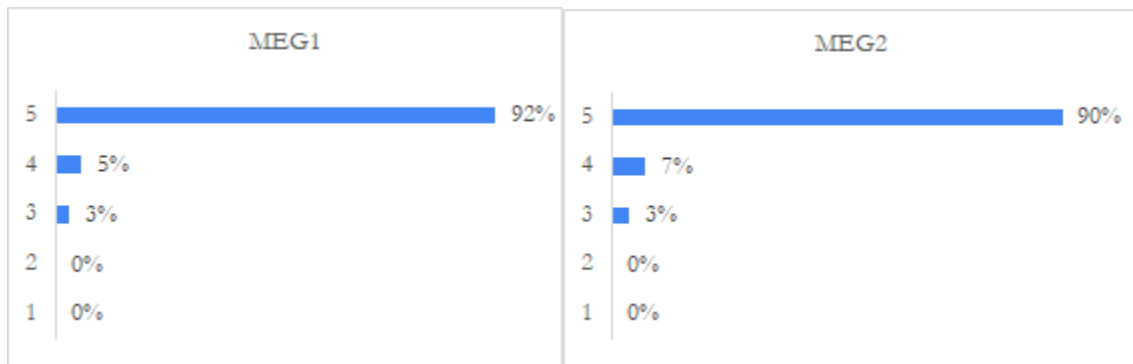
Graph 9: Answers to the statement: The writing of the report/essay allowed a better reflection on the activities carried out in the internship.



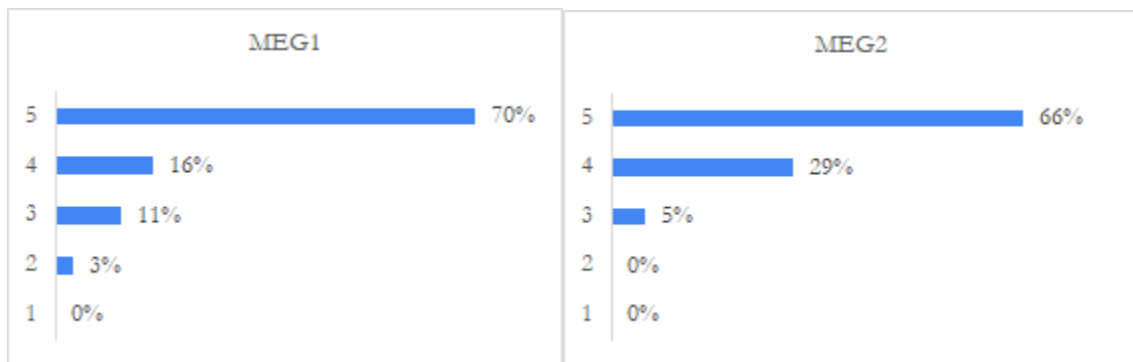
Graph 10: Answers to the statement: The writing of the report/essay allowed establishing connections between the theoretical references presented throughout the course and the data collected during the internship.



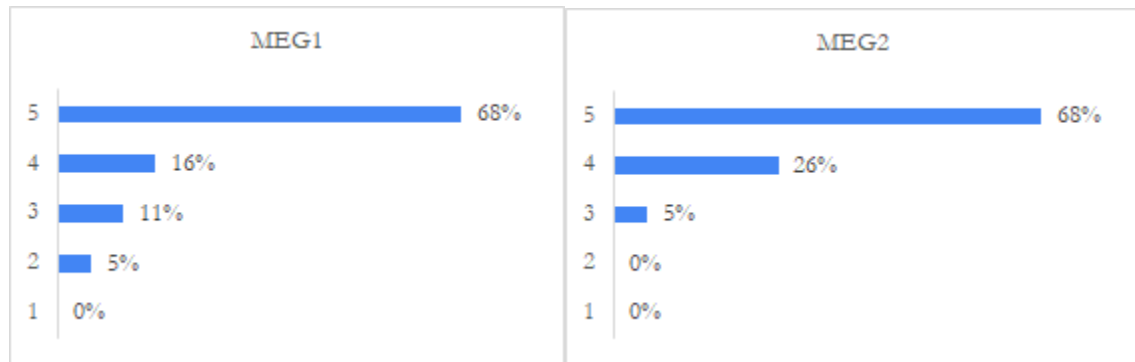
Graph 11: Answers to the statement: Both the professor and the monitors were sensitive to the situation in which we have been living and the way they conducted the discipline was satisfactory.



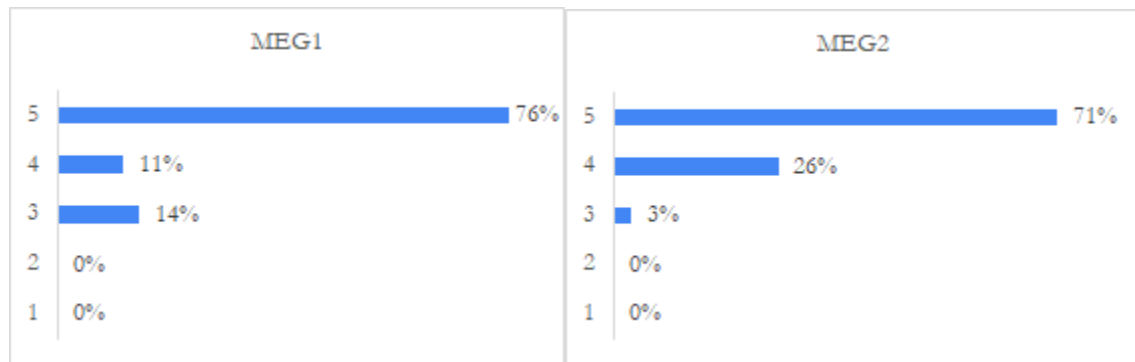
Graph 12: Answers to the statement: The mediation of the meetings was satisfactory, making appropriate connections between reality and theory.



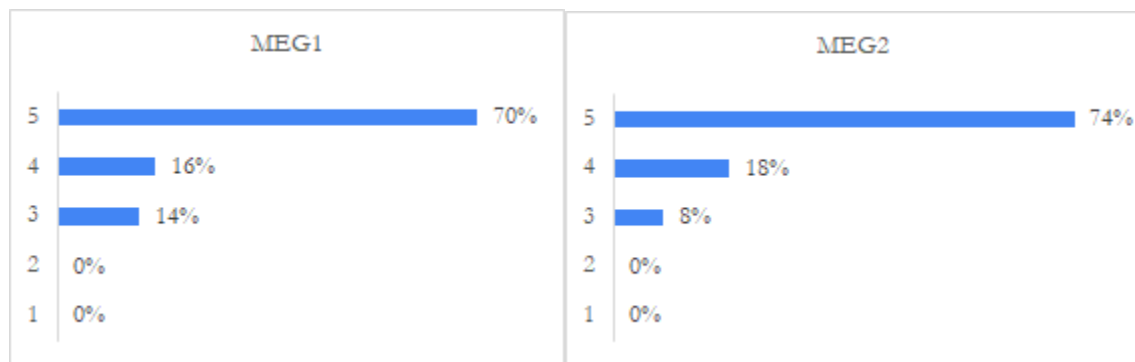
Graph 13: Answers to the statement: The mediation of the meetings was satisfactory, bringing important reflections on the specific themes of the discipline.



Graph 14: Answers to the statement: The mediation of the meetings was satisfactory, bringing important elements to my more general education.



Graph 15: Answers to the statement: The mediation of the meetings was satisfactory, encouraging and allowing the participation of students.



From the graphs, the students' assessment regarding the re-planning of disciplines can be verified. It is observed that option "5 - I totally agree" was the most voted for in most statements. In the questions that presented this behavior, this option is, most of the time, in the range between 60% and 70%. The highest percentage of this option is shown in Graph 11, referring to "Both the teacher and the monitors were sensitive to the situation in which we have been living and the way they conducted the discipline was satisfactory", with 92% in MEG1 and 90% in MEG2. When adding the positive responses (scales 5 and 4), we reached 80% to 90% as the greatest amount of variation, with the highest percentage being the statement "The redefinition of the number of reviews was

satisfactory", with 98% in MEG2 and 97% in MEG1. The only questions that had quite varied percentages among all options of the scale are shown in Graph 6 ("I had difficulty defining an internship observation focus") and in Graph 8 ("The internship experience in remote format was terrible and will compromise my initial training"), which we can infer that these aspects are more subjective in relation to the others, therefore, it varied according to the difficulties/expectations of each student. Despite this, there was a significant variation in relation to the two subjects, and in Graph 6 it is noted that the percentage of difficulty decreased in MEG2 compared to MEG1 (from 41% to 19% - sum of scales 5 and 4 of MEG1 and MEG2, respectively), but increased scale 3 - which corresponds to indifference - (from 24% to 34%); and in Graph 8, 22% in MEG1 and 32% in MEG2 evaluated the remote internship experience as positive, and scale 3 decreased from one semester to another from 35% to 26%.

In order to deepen the analysis of F2 and F3, we also bring OQ to the discussion. Table 6 shows the comparison of OQ responses that were coded in the NVivo software.

Table 6: Comparison of the coding of the analysis categories of data obtained from responses to F2 and F3.

Disciplines Assessment		
Category/ Subcategory	MEG1	MEG2
1. Program	13	5
1.1. Positive	11	4
1.2. Negative	2	1
2. Activities	9	15
2.1. Positive	7	13
2.2. Negative	2	2
3. Internship	7	5
3.1. Positive	6	4
3.2. Negative	1	1
4. Attitude	55	55
4.1. Understanding, Sensitivity, Affection and Acknowledgements	25	27
4.2. General Comments	18	16
4.3. Invite guests	6	6
4.4. Availability of recorded classes	6	6
5. Experience with remote learning	43	50
5.1. Positive	22	31
5.2. Negative	21	19
6. Suggestions and Criticism	4	7
7. Others	10	8
7.1. Best discipline taken during the pandemic	5	4
7.2. DE	3	2
7.3. Low student participation in classes	2	2

Table 6 shows seven categories for OQ contained in F2 and F3. For categories 1, 2, 3 and 5 we approach subcategories that reveal positive and negative points. It is observed that in all these cases, the students addressed more positive aspects than negative ones. In both disciplines, the students rated the experience with remote learning as more positive than negative (frequency of 22 and 31 times for MEG1 and MEG2, respectively), with passages such as: "I believe that despite the difficulties and the unexpected situation, disciplines developed satisfactorily, considering the barriers imposed by remote education", "in view of the conditions, the experience was good", "I had good experiences, I was able to follow all the meetings of all the disciplines I attended, synchronously . . . I performed all the tasks because I had the necessary privileges and conditions to do so. I confess that it was better

than I expected” and “the teacher as well as the monitors were extremely sensitive to the current situation... It was the discipline that most took this into account of the ones I took in the semester... With that, the discipline she was very good at thinking about more human aspects of teaching, essential for teacher training”. In addition to remote learning, the students rated the activities in MEG2 as the most positive (15 times), as exemplified by the following comments: “very well organized course on the platform, the texts, dynamics and proposed activities were excellent”, “the way in which the course was developed contemplated all the difficulties of the semester. The reviews also helped to bring the course closer” and “the classes were very pleasant and enriching”. In MEG1 the reformulation of the program was the item most positively evaluated (11 times), with the following mentions: “I am sure that the program would have unfolded in a more fertile way in person. At the same time, the concern and interest of the teacher and the monitors in its re-elaboration was evident”, “I was satisfied with the reorganization of the schedule and the relationship between the proposed texts (teacher training, curriculum, diversity and culture)”, “I found it quite relevant. Mainly issues such as multiculturalism and racism, brought to the fore during the George Floyd episode, “aware and inclusive” and “the discussions brought were well constructed and useful”.

Category 4 refers to the attitude of the professor and monitors in conducting the discipline. Among all, this category stands out for presenting only positive references (55 times in each semester) which were organized into four subcategories related to the aspects that most appeared in the comments. The most frequent subcategory was “Understanding, sensitivity, affection and acknowledgments” (25 and 27 times in MEG1 and MEG2, respectively), with mentions such as: “they were thoughtful and careful ... seeking to understand and meet the demands of the class ... few disciplines throughout my graduation had and proposed these reflections on their process and throughout it”, “in a period like this I was positively surprised by the attitude of the professor and monitors... There is a lack of sensitivity from university professors... and it was very important to find people who care about the well-being of students and especially willing to seriously discuss the current moment we live in and its implications for the process of training students”, “congratulations to the teacher and monitors, even in a complicated period they were always present helping, understanding the situation of the students and not failing to give a good course. I really appreciate the way everything was done. The changes in evaluations, the availability of classes, the extension of the deadline” and “I would like to thank and congratulate you, you were amazing, very coherent and sensible. I had excellent use of the proposed discussions, texts and debates. You showed competence in conducting the discipline and a lot of empathy and solidarity!”.

Note regarding category 7 - “Others”: we noticed that the term DE was used by five students in the sense of ERE, this demonstrates that there was no understanding of the differences between these teaching modalities, so we think it is important to point it out as a subcategory. As for “Best subject taken during the pandemic”, we identified that this question appeared in nine answers, giving a very positive feedback to our teaching practice. Regarding the subcategory “Low student participation in classes”, we decided to highlight it also because it was an important aspect for us. Thus, we found that four students during the year 2020 felt uncomfortable with this issue and argued that this was probably due to the format of the course, which may have inhibited people from participating or because most were overwhelmed and discouraged.

Conclusions

When reflecting on the data presented and discussed here, based on its quantitative range, it is possible to see that, in times of pandemic, the volume of aspects that affect the current educational routine is significant and implies a substantially greater overlap of difficulties than in “normal” times. When we turn our attention to the qualitative of the researched aspects, we find biological, cognitive, emotional, social and technological elements, which constitute a non-trivial complexity that falls on educational practice.

This procedure of extensive data construction on the reality of students and other data on aspects of teaching practice discussed here is something that goes beyond the methodological dimension as it is a dialogic action when it proposes to learn about and with students and establish the development of negotiated replans. After all, according to Paulo Freire (2016, 2018), education is based on the relationship between subjects mediated by the world, and, therefore, teaching requires research, understanding of reality, knowing how to listen and dialoguing with respect to the autonomy of the students' being.

The data show that the teaching-learning process in pandemic times involves challenges that permeate issues of access to technology; interpersonal relationships; mental and physical health to be considered inseparably in administrative and didactic decisions taken from the perspective of democratic management.

This highlights the complexity of teaching practice in this pandemic scenario, imposing the need for a pedagogy that is committed not only to technical and technological elements to enable teaching and learning, but also to an interventional intention in the social reality of the students involved, in the sense of not transforming studies into another challenge, compared to so many others that impose themselves on the lives of students.

In the data and discussions presented, it is also noted that the pandemic highlights the importance of considering that students and teachers need to be conceived based on the inseparability of their biopsychosocial dimensions. This perspective is important and necessary for any teacher or educational manager to understand the difficulties and needs involved in the field of education in pandemic times, with a view to improving the ability to develop ways to minimize difficulties and accommodate needs.

The positive evaluation of the students regarding the way in which this negotiated pedagogical didactic re-planning was conducted by the professor and monitors allows us to state that, in this situation of transition from the face-to-face context to the ERT, adopting a dialogical, welcoming and critical attitude towards the pandemic reality was an assertive way of reorganizing disciplines.

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