Pedagogical strategies and internationalization: contributions of remote and emergency education at UFU

Vanessa Matos dos Santos

Federal University of Uberlândia (UFU), Uberlândia, Minas Gerais, Brazil

vanessamatos@ufu.br

Maria Teresa Miceli Kerbauy

Federal University of São Carlos (UFSCar), São Carlos, São Paulo, Brazil

teresa.kerbauy@gmail.com

Abstract: This article presents partial research results and aims to identify, from a quantitative perspective, the teaching strategies used by Humanities professors during the pandemic period at the Federal University of Uberlândia (UFU). It is concluded that the accumulated knowledge can contribute to the development of a Distance Internationalization (IaD) policy/program, aligned with the objectives and vocations of the University.

Keywords: Didactic strategies; Pedagogical internationalization; Distance Internationalization (IaD).

Estratégias pedagógicas e internacionalização: contribuições do ensino remoto e emergencial na UFU

Resumo: Este artigo apresenta resultados parciais de pesquisa e parte do objetivo de identificar, a partir de uma perspectiva quantitativa, estratégias didáticas empregadas por docentes da área de Ciências Humanas durante o período de pandemia na Universidade Federal de Uberlândia (UFU). Conclui-se que os saberes acumulados podem contribuir para o desenvolvimento de uma política/programa de Internacionalização a Distância (IaD), alinhadas aos objetivos e vocações da Universidade.

Palavras-chave: Estratégias didáticas; Internacionalização pedagógica; Internacionalização a Distancia (IaD).

Estrategias pedagógicas e internacionalización: aportes de la educación

a distancia y de emergencia en la UFU

Resumen: Este trabajo presenta resultados parciales de una investigación cuyo propósito es identificar, desde una perspectiva cuantitativa, las estrategias didácticas empleadas por los profesores de Ciencias Humanas durante el período de pandemia en la Universidad Federal de Uberlândia (UFU). Concluye que el conocimiento acumulado puede contribuir al desarrollo de una política/programa de Internacionalización a Distancia (IaD) alineada con los objetivos y vocaciones de la Universidad.

Palabras clave: Estrategias didácticas; Internacionalización pedagógica; Internacionalización a Distancia (IaD).

1 INTRODUCTION

The term "internationalization" has often been associated with technological development, innovation, and knowledge exchange between different countries. In the post-Cold War era, the prospect of exchange between nations was emphasized mainly from the marketing perspective of companies that gradually became transnational in search of new consumer audiences. In the 1990s, this process of globalization of world markets was reinforced by digital technologies. In this scenario, internationalization was a distinguishing feature in an increasingly technologically connected world. However, although markets were becoming increasingly dynamic and characterized by the practical exercise of processes and demands related to them, the academic world was still trying to understand the complexity of the phenomenon that was taking place. For its part, Academia, historically characterized by reflective work and focused on the study of theoretical foundations, took some time to understand and plan Internationalization in Higher Education as an institutional policy. In the United States, for example, in the early 1990s, the international dimension of Higher Education was expressed through the actions of sectors called international offices, which were guided by the logic of "international education". However, such actions were carried out in a fragmented manner, sometimes disconnected from the principles of the universities themselves, and focused on administrative procedures that were more related to government bureaucracies, to the detriment of pedagogical aspects (De Wit, 2024).

Based on the initial discussion, this study suggests that the suspension of presential education brought forward discussions, debates, and appropriations of digital technologies for different educational contexts. Borders that had previously seemed blurred (such as the distinction between distance education and remote education) began to emerge as society presented new demands that were not always planned for. Moments of rupture imply a review of research practices, principles and methods, work logic, and studies (Popper, 1972). It is up to science to seek ways to understand phenomena and to propose, even temporarily, solutions to the problems that challenge humanity.

Specifically in the field of education, there are currently several studies and research projects aimed at understanding the various nuances of this moment from different points of view. This is where the project "Education, Technology and Communication: articulations between knowledge and

study of the impact of pedagogical and media strategies used by the Federal University of Uberlândia (UFU) in different areas of knowledge (Humanities, Biology and Exact Sciences) during the period of remote classes" (Educação, Tecnologia e Comunicação: articulações entre saberes e estudo do impacto das estratégias pedagógicas e midiáticas utilizadas pela Universidade Federal de Uberlândia (UFU) em diferentes áreas do Saber (Humanas, Biológicas e Exatas) durante o período de aulas remotas) comes in, currently underway and funded by the Minas Gerais State Research Support Foundation[1] (FAPEMIG). It started in 2022 and is scheduled to end in September 2025, the research had the general objective of mapping the pedagogical and media strategies implemented by professors in the three main areas during remote education at the University, and subsequently, verifying whether there is a correlation between the strategies implemented and the dropout and retention rates recorded during the same period at the University.

The first stage of the research consisted of collecting data on all the undergraduate courses, compulsory and optional, by area, offered by the university remotely: number of places offered, number of students admitted, and others. This survey was important because, as detailed in this article, several curricular components could not be offered during the suspension of presential classes for various reasons: the practical nature of the course, illness of the professor responsible for the curricular component, among others. It is also important to emphasize that the survey was also expanded and deepened due to the postdoctoral research currently underway[2].

Based on the established sample, the criteria for which are detailed below, the second phase of the research - currently under development - seeks to understand, through in-depth interviews, the pedagogical practices implemented by the professors[3] during the period in which presential education was suspended. As the interviews progressed, other nuances of the pedagogical practices reported by the teachers became more apparent, pointing to other aspects of reality that the project research team should consider. Although they were not foreseen as objectives of the project, the researchers understood that the role of the scientific researcher is not only to pursue his initial objective but also to question what is presented to him. Popper (1972, p. 39, translated by us), when discussing his understanding of science, states that discoveries "[...] confront us with new and unexpected questions

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[1] The project was approved in the FAPEMIG 2022 Universal Call for Proposals, under identification APQ 00853-22.
[2] Post-doctoral research currently underway in the Graduate Program in Political Science at the Federal University of São Carlos (UFSCar).
[3] Certificate of Submission for Ethical Appraisal issued by the UFU Human Research Ethics Committee (CEP): CAAE 83473024.5.0000.5152.

and force us to try to find new and unsuspected answers" without compromising the logical rigor of the investigation.

However, we would like to share with you one of the discoveries we made during the research process: the fact that, despite all the uncertainties and insecurities, many professors had to rethink the teaching methods of their classes in light of the challenge posed by the pandemic context, and in doing so they began to implement teaching strategies directly related to internationalization processes (although they are not called that by the professors who were interviewed).

2 INTERNATIONALIZATION AS A DYNAMIC PROCESS

As digital technologies have evolved, the classic models of internationalization originally advocated by Knight (1993; 1994; 2020) have evolved, and new possibilities for teaching and learning about internationalization have emerged. For example, it is now possible for a student to participate in distance internationalization activities through digital technologies without leaving home. Extending this discussion, according to Mittelmeier *et al*. (2021), the existence of this third category (inserted in a dashed format in Chart 1) can complement and broaden the understanding of internationalization. In the case of IaD, the focus shifts from subjects (students, professors, institutions) to knowledge, which, according to the authors, "[...] are internationally mobile with the support of technologies, rather than the students themselves" (Mittelmeier *et al*., 2021, p. 269, translated by us).

Chart 1 – Types of Internationalization

INTERNATIONALIZATION		
At home (IaH)	Cross-border / overseas (IA)	Distance (IaD)
• curriculum / teaching / learning • open access education • students/professors from the country itself • students/researchers from abroad • extracurricular activity • research	• Mobility of people • programs or courses • providers • projects / services • policies	• open access education • research, projects and services • Training programs supported by digital systems that enable synchronous and asynchronous interaction. • Use of digital technologies (especially free and open source platforms)

Source: Knight (2020) with insertion of contributions, in dashed lines, from (Mittelmeier *et al*., 2021).

Over the years, as a result of the different contexts studied, the results observed in research, and, above all, the impetus received from academic researchers who were guided by practice and who saw in the internationalization of higher education a way to promote a greater link between theory and practice, this first definition has been modified by several contributions, among which the following stand out: De Wit (1995), Knight and De Wit (1997), Knight (2000; 2004; 2020), Knight and De Wit (1997; 1999), Arum and Van de Water (1992), Van der Wende (1997), Jesus-Sebástian (2004) and Soderqvist *et al*., (2002). It is equally important to recognize the role of UNESCO Chairs in developing an understanding of the internationalization of higher education. By promoting the discourse on the need for internationalization, the multilateral organization in question practically induces universities to increasingly prioritize internationalization in their actions and to begin to understand it effectively as a university policy. The concepts are not general and must therefore be constructed according to the needs and objectives of the institution. Streitwieser and Ogden (2016) highlight the importance of the scholar-practitioner for the development of the internationalization of higher education as a new field of study, characterized by both practice and theory. In the Brazilian case, for example, this effort to integrate theory and practice has slipped into the old (and in some aspects still unresolved) dichotomy between Academia (the space for reflection and theory) and the Market (the space for practice). The policy to promote the creation of professional master's degrees was implemented through the Normative Ordinance/MEC No. 17, of December 28, 2009 (Brasil, 2009)[4]. According to this Ordinance, the professional master's degree[5] (Brasil, 2009) should enable "the training of personnel for advanced professional practice and transforming procedures [...]". In terms of objectives, these programs must "contribute to adding competitiveness and increasing productivity in companies, public and private organizations" (Brasil, 2014). All these prerogatives must follow the general alignment of the Law of Lines of Direction and Bases of the Education (Brasil, 1996).

Society needs to benefit from internationalization through concrete and significant actions. Such changes have sought, albeit discreetly, to respond to the various critiques that refer to internationalization as a Western construct that has enabled a process of Americanization or

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[4]Available at: https://abmes.org.br/arquivos/legislacoes/Portaria-Normativa-17-2009-12-29.pdf. Accessed on: Jun. 30, 2024.
[5]Subsequently, the Ministry of Education (MEC) also approved the creation of professional doctorates, considering practically the same foundations as professional master's degrees.

Europeanization of higher education (Mestenhauser, 1998). More recently, Marginson (2023) has emphasized the need for caution and more critical studies of internationalization due to the broader hegemonic position of the Global North in constructing ways of understanding the phenomenon. In this sense, any internationalization action must always be problematized in light of the risks of reproducing asymmetrical power relations, colonial representations, and possible unequal flows in terms of sharing information, processes, and methodologies.

While acknowledging the importance of critique, De Wit (2024) argues that the direction of a proposal may be as important or more important than the need to construct a specific definition for it. In this sense, practice has the potential to bring to the surface the specific historical, political, social, cultural, and economic characteristics of a given proposal. These will be the specificities and potentials that can contribute to the development of the science, which in turn will create the sediment necessary for the formulation of new definitions, such as pedagogical internationalization.

Understanding pedagogical internationalization as a dynamic, complex, and multifaceted process, Barros (2023) takes up the perspective of De Wit (2024), for whom the review of the internationalization process must be constant, but always based on ethical values of sharing knowledge and thinking from specific social contexts. Therefore, assuming that there is no ready or pre-determined path, De Wit (2024) invites us to be part of a new beginning, focused on our needs, with clearly defined objectives and indicated in action plans or perhaps in more robust university policies.

3 METHODOLOGICAL PATH

3.1 Nature, *Locus* and Context of the Research

The research on which we focus here, and the partial results of which we present below, was prompted by the challenges experienced by teachers from different fields of knowledge (Humanities, Exact and Biological Sciences) during the period of suspension of presential education activities at the Federal University of Uberlândia (UFU), located in the Triângulo Mineiro region, in the state of Minas Gerais.

Guided by the methodological principles of the case study (Yin, 2014; Stake, 2003), in this article, we emphasize the quantitative method since the numerical data (raw data) resulting from the categorization of the responses of the interviewed professors are analyzed based on descriptive

statistics. The selection of the university was made according to the criterion of convenience (Lavile; Dionne, 1999; Creswell, JW; Creswell, JD, 2018).

The locus is the Federal University of Uberlândia (UFU), in Minas Gerais (Brazil). During its 46 years of federalization, the UFU has expanded its presence in the Triângulo Mineiro and today has 1,913 active professors, 2,759 administrative technicians (UFU, 2023[6]) distributed across its seven university campuses, in addition to three experimental farms, a conservation unit registered with the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), and three university hospitals (Hospital de Clínicas, Hospital Odontológico and Hospital Veterinário). Currently (data from 2023), the university offers 133 undergraduate courses and 78 postgraduate ones. As for students, the UFU serves more than 20,000 students, of which 19,861 are enrolled in undergraduate courses (presential) and 424 in distance education programs (EaD, as it is called in Brazil). In postgraduate studies, UFU has 1,968 students enrolled in academic master's degrees, 438 in professional master's degrees, and 1,586 in academic doctorates. In addition, the university also offers professional education courses for 614 students and specialization courses for 128 students.

Concerning the context of the investigation, it is important to emphasize that the UFU began to suspend presential activities for an indefinite period of time on March 18, 2020 (one week after the World Health Organization (WHO) recognized that the world was facing a pandemic). For nearly five months (between March 18, 2020, and August 9, 2020), there was a complete suspension of teaching activities in both the undergraduate and graduate programs, as well as several meetings in search of local responses to the crisis that was ravaging the entire world. During the same period, the number of deaths of members or relatives of members of the academic community, proven to be due to Covid-19, increased.

At the end of June 2020, the UFU Research and Graduate Studies Council (CONPEP) authorized, through CONPEP Resolution 06/2020, what was called the "Exceptional Supplementary Academic Period [7]". We are particularly interested here in the deliberation (also instituted through a Resolution of the Undergraduate Studies Council) carried out for the University's undergraduate courses. According to the Resolution, signed in July 2020, UFU also began to institute, for

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[6] Up-to-date information obtained from the UFU Open Data Bank. Access for consultation available at: https://dados.ufu.br/. Accessed on: Jun. 13, 2024
[7] According to the Resolution, UFU's Postgraduate Programs were authorized to offer, remotely: I - classes; II - dissertation and thesis defenses; III - qualifications; IV - selection processes; and V - research. Remote classes in postgraduate programs began in August 2020.

undergraduate courses, Emergency Remote Academic Activities (or AARE in Brazil[8]), on an exceptional and optional basis, due to the pandemic. The same Resolution also makes it clear that the rules and regulations [9]of the Distance Education teaching modality would not apply to AARE. AARE would be offered in two stages, in special 9-week academic periods[10].

The AARE differed in many ways from the so-called "remote regular period," which was characterized, among other things, by the offer of 15 or 16 weeks of classes. After offering the first remote regular period, the University gradually resumed the physical occupation of the campus space, based on the recommendations of the UFU Covid-19 Monitoring Committees and the guidelines of the Health Surveillance Agencies - which occurred on May 2, 2022. Chart 2 attempts to present these periods in a systematic way.

Chart 2 – Details of the periods of suspension of presential education activities at UFU

STAGE	PERIOD	DURATION
AARE - Stage I	08/10/2020 to 10/10/2020	9 weeks of classes
AARE - Stage II	10/22/2020 to 12/23/2020	9 weeks of classes
First Remote Regular Period (PPRR)[11]	03/01/2021 to 06/19/2021	16 weeks of classes

Source: Data obtained from academic calendars and Resolutions published by UFU (2024).

3.2 Time Frame

Given the exceptional context and, above all, the fact that the first period of the AARE was considered a period of adaptation for professors, students, and the institutions as a whole, within the framework of the FAPEMIG project under development, we have considered only the periods constituted by the AARE II and the First Regular Remote Period (FRRP). Although AARE II is still

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[8] Art. 3 of UFU CONGRAD Resolution 07/2020 defines that: "AARE are typical actions of the teaching and learning process that, due to the occasional need to maintain physical isolation among the participants in this process, due to the COVID-19 Pandemic, are carried out with the mediation of digital communication and information technology resources and will result in formative enrichment and curricular use, in accordance with an activity plan specific to the period of suspension of the Academic Calendar" (translated by us.

[9] Rules provided for in art. 80 of Law No. 9,394/1996, regulated by Decree No. 9,057 of May 25, 2017.

[10] It was up to the Board of each undergraduate course to define which subjects (theoretical or practical; elective or optional) and extension activities (such as webinars and mini-courses) would be included in the AARE Offering Plan (stages I and II).

[11]This period was offered, chronologically, in 2021, but, in terms of the academic calendar, the reference is the first semester of 2020.

characterized by exceptionalities, there was already a previous experience, (AARE I) in offering curricular components related to it.

Among the exceptionalities of AARE, the following stand out: a) the offering of curricular components or other activities was considered optional for the teaching staff[12] and b) the participation of students in these activities would be voluntary and, in addition, the student was guaranteed that failure in any disciplines taken as AARE would not affect their academic performance coefficient (APC[13]). The resolution authorizing the offer of AARE also established that the disciplines taken in this format could be validated normally as a curricular component, at the discretion of the committees of each course. The first regular remote period was characterized by the return to the undergraduate norms as they were before the emergency period[14].

3.3 Data Collection and Selection of Research Subjects

The collection of raw (general) data was based on consultation of official university data. The Academic Control Board (DIRAC) provided a set of tables with details of all subjects (compulsory and elective) offered during the period defined in the cut-off. The tables contained the name of the subject, the subject code, the course to which it was linked, the name of the professor who taught the subject, the number of vacancies, the number of enrolments, the number of students admitted, the number of students retained, and others. The following exclusion criteria were taken into account for the processing of these data: subjects that indicated that no student had enrolled, subjects that presented inconsistent data (for example, the number of approved students greater than the number of enrolled students), subjects related to the integration of others, such as seminars and internships. TCC (Course Conclusion Work) subjects were also excluded because the dynamics of guidance require a more individualized relationship between professor and student. The inclusion criteria were: subjects taught by more than one teacher, theoretical and practical subjects.

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[12]Art. 24. The option of professors and technical-administrative staff who work directly in teaching activities within the scope of AARE not to participate in these activities will not produce any functional or administrative penalty against them by the UFU Administration (translated by us).

[13]Art. 22. The assessment of performance and attendance in the subjects provided for in item I of art. 4 will be in accordance with articles 162, 163 and 164 of the General Undergraduate Regulations, and, if the student does not achieve sufficient performance and/or attendance to pass a given subject, the expression "No performance" must appear in his/her Academic Transcript in the field referring to performance in this respective subject, so that the failure does not generate losses to the student's APC (translated by us).

[14] With a few exceptions (which were related to the nature of the subject or something similar), the rules, in essence, already established almost the same rules indicated in presential classes for the virtual environment as well.
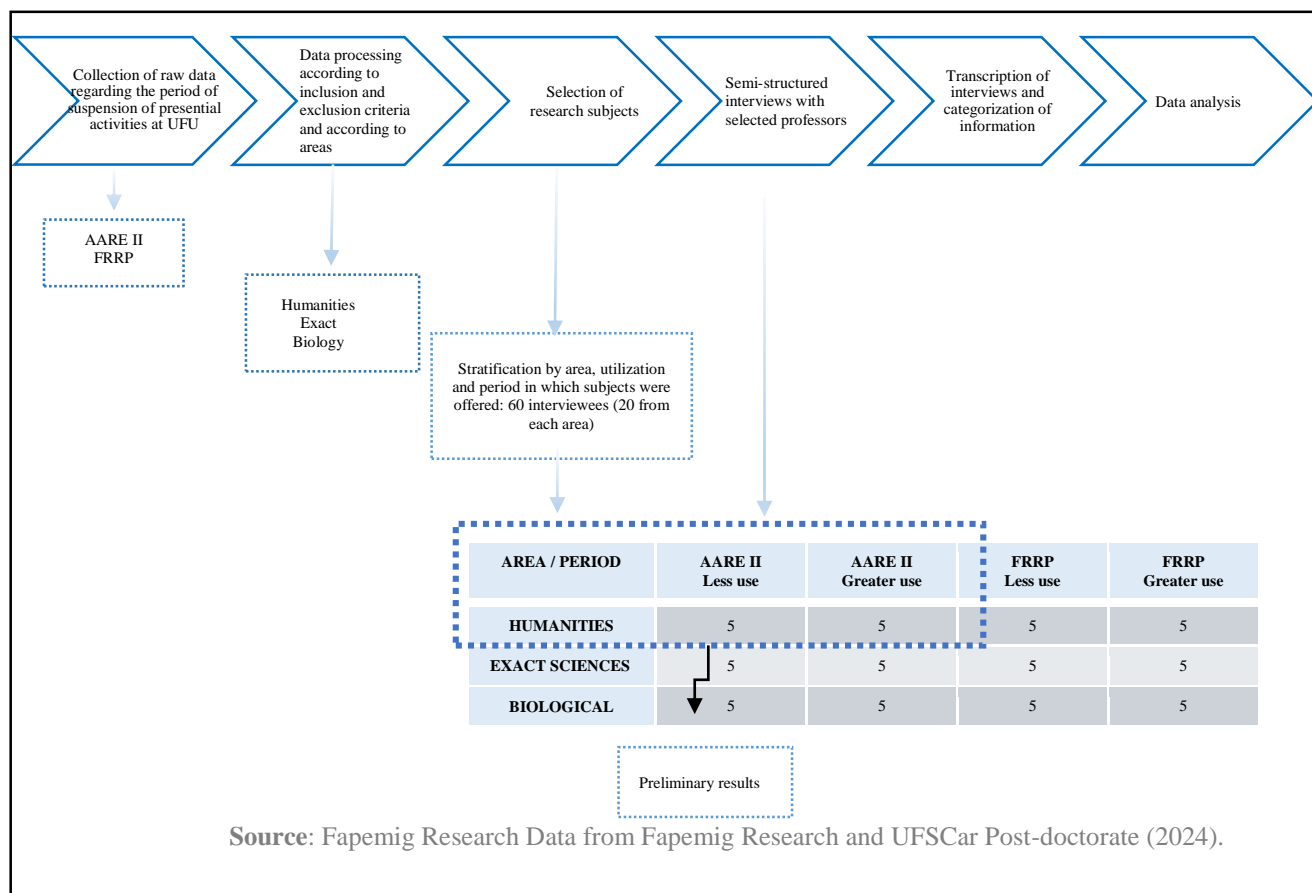
For the selection of research subjects (sample calculation), the number of courses offered during the period established in the research universe was considered as the research universe. During AARE II and FRRP, UFU offered a total of 6,053 undergraduate courses (mandatory and specific[15]). Therefore, considering a 95% confidence level, an error of 9% and an estimated proportion in the population of 15%, the sample resulted in 60 courses.

The stratification, carried out sequentially, was established based on the variables established for study in the project: areas (Humanities, Exact and Biological Sciences), period of offering the discipline (AARE II or FRRP) and performance verified in the subject[16] (major/minor). The research design (which makes this process clearer) is shown in Figure 1.

Figure 1 – Research design

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[15]The calculation of courses offered was based on tables provided by DIRAC. It is important to highlight that, in these tables, there were indications of courses that were started after or even before the chronological period established for AARE II and also for FRRP. This occurred due to specificities of the courses (semester or annual courses / pedagogical proposal). Regarding AARE, several courses chose to offer complementary content to students (such as lectures, mini-courses…) instead of courses as a way to ensure that student education continued even during the pandemic period. Since these were not courses per se, there was no record of these activities in the data provided by DIRAC.

[16]The initial research proposal aimed to analyze retention and dropout rates. Although these rates are still highly questioned, they express a multifaceted phenomenon that needs to be taken into account in its various instances/implications (such as the student's academic path, the number of university graduates, and others). In the process of collecting and organizing the data, as explained in this text, we found that essential information for this type of analysis was lost. As an example, we can mention the fact that the period understood as AARE (stages I and II) did not assume failure in subjects. In order not to affect the academic performance coefficient, dropouts or retentions were considered as "no success". Although this strategy played an important role at the time (to encourage students to participate in distance education in a context of so many uncertainties), it implied certain information inaccuracies, especially regarding retention during these periods. Therefore, we considered the systematization of the data according to the percentage of verified success in the subject, that is, based on the relationship obtained between enrolled and approved students. Based on this principle, we began to work with the following variables: subjects that achieved the highest success rate (100%) and subjects that recorded the lowest success rate (0%). Although we recognize that the term "performance" has limitations, we understand that its use in this context can avoid inaccuracies.

Collection of raw data regarding the period of suspension of presential activities at UFU → Data processing according to inclusion and exclusion criteria and according to areas → Selection of research subjects → Semi-structured interviews with selected professors → Transcription of interviews and categorization of information → Data analysis

AARE II
FRRP

Humanities
Exact
Biology

Stratification by area, utilization and period in which subjects were offered: 60 interviewees (20 from each area)

AREA / PERIOD	AARE II Less use	AARE II Greater use	FRRP Less use	FRRP Greater use
HUMANITIES	5	5	5	5
EXACT SCIENCES	5	5	5	5
BIOLOGICAL	5	5	5	5

Preliminary results

Source: Fapemig Research Data from Fapemig Research and UFSCar Post-doctorate (2024).

3.5 Procedures

According to the stratification, 10 professors who taught humanities courses at UFU were interviewed. After identifying the professors in charge of the selected courses, we began sending invitations by email for a semi-structured individual interview. Regarding the instrument, the interview script was planned to be developed either in person or remotely, depending on the professor's choice, and structured around a deeper understanding of the pedagogical strategies used by the professors during Stage II of the AARE, as well as what digital applications were used in their classes, methodologies, and challenges they faced. Although they had already agreed to participate in the interview, all professors were also asked to register their agreement with the procedure at the beginning of the interviews, which were recorded for later transcription[17].

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[17] The interviews were conducted by students (from master's and doctoral courses) of the Postgraduate Program in Education (PPGED - UFU) and students (from professional master's courses) of the Postgraduate Program in Technologies, Communication and Education (PPGCE - UFU), under the supervision of the researchers.

After transcription, we began the process of categorizing the data. When we realized that a discovery (not initially intended) was in front of us in an incisive way, we chose to categorize the strategies implemented, based on Barros (2023), precisely because the author carried out a broad survey on pedagogical internationalization in digital contexts.

The entire process of organizing, systematizing, and categorizing the data was carried out using SPSS 27 software.

3.6 Presentation and Discussion of Results

At the beginning of the data analysis, using the SPSS software, edition 27, we did not find any statistically significant correlation between the variables "higher achievement" and "lower achievement" in relation to the teaching strategies implemented. This means that in this case (and considering this cut-off and this sample) it was not possible to correlate any strategies with the achievement of the disciplines. In general, it was not possible to find any statistical significance that would indicate that the teaching strategies implemented by the professors had an impact on the final result of the discipline (higher or lower achievement). Nevertheless, we began to group the professors from both strata into a single group, that is, 10 professors.

Regarding the profile, all of them have a Doctorate Degree and indicated that they have more than five years of experience in higher education (not exclusively at UFU). The average age of the respondents was 52 years. With regard to specific training in teaching or didactics in higher education, only three teachers indicated that they had taken a course of this type during their university career. Regarding the completion of training courses during the period of remote education, 90% of them indicated that they had sought some type of training in the area of educational technology, virtual platforms for web conferencing, and planning activities for remote education.

Of the professors who indicated that they had taken one of these courses, half said that the training was offered by the UFU itself, through the virtual training program (PROVIFOR) of the Department of Degrees and Teacher Training (DLIFO), the Center for Distance Education (CEaD) or the Training Department (DICAP). The other half took free courses on virtual platforms, courses offered by other federal universities, and courses for free by Google for Education.

The systematization of the responses related to the teaching methods implemented by the respondents according to the strategies indicated by Barros (2023) shows, through Charts 3 and 4, that the professors mobilized more than one strategy during their

remote classes. For the purpose of detailing the data, we chose to detail the strategies that received at least 50% of the indications and those that received less than this percentage. Since the indication of the teaching strategies allowed multiple choices/options, it is possible to observe that the total sum exceeds 100%.

Chart 3 – Pedagogical strategies that achieved a percentage of 50% or higher

Teaching strategies indicated by the research subjects	Cumulative percentage
Diversity of e-activity formats, such as tasks and exercises	100.0%
Explanation of theories from different perspectives and trends of the same content	100.0%
Use of internet services, expanding access to information to enhance learning	100.0%
Use of virtual platforms (social and learning) to develop reflection work and access content	100.0%
Use of films, videos or documentaries with guidance and questions	100.0%
Group strategies for organizing collaborative work	80.0%
E-activities that enhance peer interaction	70.0%
Individual and personalized learning strategies, according to styles, contexts and cultural habits;	60.0%
Use of applications, software and tools to carry out activities;	60.0%
E-activities that require experiences of the local and global cultural context in which you live and work;	60.0%
E-activities for learning conceptual and theoretical aspects	60.0%
Carrying out presentations on specific content with different stakeholders	50.0%

Source: Data from Fapemig Research and UFSCar Post-doctorate (2024).

All of the professors indicated that their teaching relies on Internet services and access to information. Regarding the use of virtual platforms (also mentioned by 100% of the respondents), the most common were web conferencing, Google Meet (50%), Zoom (20%), Webconf RNP (10%), Microsoft Teams (10%) and Moodle (10%). Among those who used Google Meet or Google Classroom, integration with Google services (email, text archiving drive) was cited as the main reason for choosing them. Zoom was chosen by 20% of respondents for its intuitive and user-friendly interface. The remaining respondents (80%) indicated the use of Microsoft Teams and Moodle.

All of the teachers interviewed indicated that they had become familiar with the Teams system, and some (50%) had even taught courses using it during the first phase of the AARE. We noticed that the professors already had more defined preferences regarding web conferencing platforms.

Another aspect highlighted, also by 100% of the professors, was the use of videos. These materials were made available or indicated via virtual platforms (for example, they were used in a combined way). Regarding this aspect, it is important to clarify that in the Humanities area at the UFU, during the second stage of the AARE, the most common

combination between the strategies (reaching 100% of cases): basically, teachers used a virtual platform to organize teaching materials, make content available and control data, and a web conferencing tool for synchronous classes.

The use of YouTube videos was also reported as the most common way to supplement concepts and content covered in synchronous classes. It is important to distinguish between "recommending videos" (indicated by 30% of the professors) and "showing videos synchronously" (option for 70% of them). The majority of professors felt that videos should be shown during synchronous classes, mainly because in this situation it was possible to play the material more than once and also to stop the display to explain a particular point/concept and then resume immediately.

In addition to YouTube videos, teachers also used, albeit to a lesser extent, TikTok videos produced by external people (10%) and Instagram or YouTube videos produced and recorded by the professor (50%). Half of the sample indicated that it was even necessary to purchase new equipment, such as lights, and more powerful computers, to support video recording and editing. Regarding the use of social networks, most of the professors reported that the combination of space and time through WhatsApp caused a kind of anxiety and a feeling of being constantly behind because they were not able to respond satisfactorily and quickly to all the students who sent them messages with questions.

Regarding the "variety of e-activity formats, such as tasks and exercises", the formats most often used by professors were: sending text excerpts/chapters by email, dialog presentations using PowerPoint, Prezi, or Mentimeter via the videoconferencing platform, sending links with photos, projects, and others, that could serve as examples of activities that could be required of students in the future. All the professors indicated that the tasks and exercises were adapted for the platforms before being sent to the students.

Regarding "Explaining theories from different perspectives and trends of the same content", 100% of the professors responded that this was already a habit in the presential classes and reproduced in the remote classes. When asked for details, all teachers indicated that they used the expository teaching model for this topic. The teaching strategy was the same in this case, only the space changed (from in-person to web conferencing platforms).

The use of videos, especially those accessed through YouTube, was also mentioned by all the professors. In general, the videos were used to anticipate or complement the topics covered in synchronous classes, from a more playful perspective, from a new point of view. A large proportion (70%) of the professors also mentioned and produced tutorial videos for students on various subjects, including how to access and use all the services offered by the platform used for that discipline. The

organization of collaborative work also appeared very often in the answers of the responding teachers (80%).

However, there were strategies that were used less frequently by professors. Chart 4 provides a breakdown of these actions and their respective percentages. Again, it is important to remember that the sum of the percentages presented exceeds 100% because the responses were not exclusive (unique), that is, each teacher could indicate more than one strategy simultaneously.

Chart 4 – Pedagogical strategies that achieved a minimum percentage of less than 50%

Teaching strategies indicated by the research subjects	Cumulative percentage
Spaces for discussion, reflection and interaction for co-learning	40.0%
E-activities for practical and contextualized application	30.0%
Explanation of historical contexts of content with supporting documents and reading in different languages	10.0%
Carrying out practical demonstrations, with examples considering different contexts	20.0%
Collaborative project development	20.0%
Use of collaborative games	20.0%
E-activities for building applied projects, locally and globally, in a sustainable way	20.0%
E-activities for creating a relationship of trust between peers	20.0%
E-activities for problem-solving and case studies	10.0%

Source: Data from Fapemig Research and UFSCar Post-doctorate (2024).

All professors indicated that they provided their students with spaces for discussion, reflection and interaction, but only 40% of the total aimed at co-learning. The others (60%) also showed efforts in this direction, but considered that they focused on activities (not always aimed at co-learning) that were already included in their teaching plans.

Regarding the use of games, two professors (20% of the sample) indicated that they used this type of resource in their classes. In both cases, the game *Kahoot!* was presented to the students at the end of the class, as a way of emphasizing (memorizing) some theme/concept previously worked on, without assigning points for evaluation purposes or any other form of bonus. These two professors also stated that they used the game as a form of entertainment or relief for the students, as a signal that the "class is over".

The two strategies least used by professors were "Explaining the historical context of the content with supporting documents and reading in different languages" and "E-activities for problem-solving and case studies" (both reached a percentage of 10%). Regarding the first least used strategy,

only 1 professor reported having used a supporting document in another language in his/her class. Regarding the second least used strategy, "e-activities for problem-solving and case studies", 90% of the respondents said that they had presented "case studies" or "examples" to the students during class but that they did not understand that they had done so in a systematic, continuous, planned way, which could characterize the use of the problem-solving methodology in their classes.

In summary, regarding the most and least used teaching strategies, all the professors mentioned that the shorter semester (9 weeks) also contributed to them trying to focus on what they had already developed in the classroom (with the necessary adaptations for the remote education), to the detriment of trying new methodologies. Nevertheless, it is important to emphasize that 70% of the professors considered that their teaching was better planned in the second phase of the AARE, due to the experience gained in the first phase of the AARE, the greater familiarity with the web conferencing platforms and the knowledge of digital resources (software, applications) specific to their pedagogical objectives. The resources we refer to here are applications and/or materials that can be used (or even developed by teachers and students themselves) in different ways, depending on the proposal prepared by the professor. In terms of resources, these were the most frequently mentioned by teachers: Jamboard (30%)[18], Prezi (30%), Miro (20%), Padlet (10%), and MindMaster (10%). These resources were used to display images, processes, instructions, and guidance to students, to organize the class into work groups for a specific project, or even to summarize the content of a lesson through the construction (collective or individual) of a mind map.

It was also observed that the low percentage achieved by some teaching strategies may be related to the use of the term "e-activities". Although remote education has made use of various technological supports and even distance education methodologies (EaD), it is certain that this was the first reference that several professors had at the beginning of the remote classes.

Issues related to the provision of support materials in another language are still quite sensitive at the University. Although the Law of Lines of Direction and Bases of the Education (LDB) establishes the compulsory teaching of a foreign language (with a predominance of English) from primary school onwards, there is still a large contingent of students who reach higher education without being able to perform instrumental reading of a simple text in English.

In general, the data presented here show that the professors in our sample experimented, to a greater or lesser extent, with different strategies during the AARE II period. This period was extremely

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[18] According to official information from Google, this virtual device is scheduled to close on December 31, 2024.

important for the development and maturation of strategies related to pedagogical internationalization by professors. In agreement with Barros (2023), for the internationalization of higher education to be effectively implemented, its most basic input (in this case, the didactic strategies implemented by its professors) must also be directed towards internationalization.

From the point of view of technology-mediated educational processes, the pandemic, although painful, has shown that technologies (if understood only as tools, from an exclusively utilitarian perspective) add very little if they are not accompanied by adapted pedagogical proposals and, above all, if there are not professors trained to implement these new pedagogical proposals, which in turn can open up space for innovative IaD practices, in the sense that subjects may be geographically fixed but knowledge is mobile and dynamic (Mittelmeier *et al.*, 2021). Despite all the difficulties, this period was important for us to mature our understanding and definition of internationalization, a need that had been present since the 1990s (Rum; Van de Water, 1992).

4 CONCLUSION

The internationalization of higher education has emerged as a new challenge for Brazilian universities. Even before the pandemic, there was a significant governmental movement to promote exchanges, links, alliances, and research and development groups between different countries through internationalization, especially cross-border or transnational. Internationalization at home was very little known, so many believed that internationalization only existed when a person (student, professor, technical-administrative staff) moved to another country.

The health emergency faced during the most severe periods of the Covid-19 pandemic forced the world to seek alternatives to the challenges that arose day after day in all areas of daily life. In the list of transformations related to the internationalization of higher education, Woicolesco, Cassol-Silva and Morosini (2022) observed that internationalization at home can represent the inauguration of a sustainable model of higher education in Brazil. Mittelmeier *et al.* (2021) observed that internationalization typologies are not as rigid as previously thought and that, in the context of networks, different typologies can occur simultaneously.

In an attempt to understand pedagogical internationalization and how it manifests itself through   different teaching strategies, Barros (2023)

presented a survey of the most present and cited strategies in the specialized literature in the field. This research showed that of the 23 strategies related to pedagogical internationalization listed by Barros (2023), the professors in the research sample used 21 in the subjects they taught during the period of remote classes at the UFU.

It is worth noting that only 30% of them had, at some point in their career, completed training in higher education teaching or university didactics. This may have something to do with the fact that they were professors in the humanities. Theoretically, the nature of the discipline suggests that faculty in this area are extroverted and can more easily deal with the challenges of university teaching. Of course, this is just an assumption that can only be verified at the end of the FAPEMIG project, when we will be able to effectively observe the profiles of teachers in the three main fields together. Likewise, 90% of the professors interviewed indicated that they had attended training courses when presential education was suspended at the UFU. The professor who stated that he had not taken any courses explained that he had been seriously affected by Covid-19 and had to spend a long time in hospital for treatment of the disease.

It is noteworthy that the professors revealed, to a greater or lesser extent (with percentages ranging from 100% to 10%), that despite the uncertainties of that period, it was the time to seek training and adapt their materials, already prepared for traditional classes, to a new dynamic. Without exception, all of the professors said that they had used more than one teaching strategy in their classes in order to provide students with new ways of understanding the content.

The high percentage of use of teaching strategies related to pedagogical internationalization occurred unexpectedly and as an emergency measure. Professors' first reference was to distance education (EaD) because they started teaching in a regime where students were physically separated. Gradually, the perspective of remote classes (as something different from EaD) began to take shape and become clearer to professors and students.

The second point highlighted in the definition by De Wit *et al*. (2015, p. 3, translated by us) is precisely the fact that internationalization needs to integrate different dimensions (international, intercultural or global) in both the "[...] purpose, as well as in the functions and provision of post-secondary education, in order to promote the quality of education and research for the entire student, teaching and staff body [...]". In other words, internationalization must be part of the daily life of the university, permeating all its entities. To this end, the assumption of internationalization under these conditions, along with teaching, research and extension, must be clear to all the segments involved (students, teaching and technical-administrative staff) and must also be contemplated by the

institutional policies in progress (Morosini, 2019).

In the specific case of the experience reported here, it is now clear to the academic community in its various segments that at the UFU, during the AARE (and even after, still during the pandemic), the university implemented remote classes. Although several courses offered during the AARE were very well evaluated by students (UFU, 2021), it is not clear that part of this evaluation concerns the teaching strategies chosen by the professor who taught the course and that these strategies are related to pedagogical internationalization. In this sense, perhaps the UFU is in a position to have many other internationalization actions in addition to those currently offered. And maybe it can effectively adopt internationalization as an institutional policy beyond the rankings that most promote competitiveness to the detriment of a plural, intercultural, diverse, and global education.

The last point - and probably the most compelling in the definition of De Wit *et al.* (2015, p. 3, translated by us) - indicates that internationalization must "[...] make a significant contribution to society". One could discuss here what the meaning of "significant" would be, but knowing the role of Brazilian public universities, it is possible to understand that the contributions of internationalization add something to the university environment beyond specific outreach activities. The agreements and partnerships signed with other institutions must go beyond the funding of laboratories or research centers, spaces visited by only a part of the academic community, and almost never by civil society. It is important to emphasize that these spaces need funding from agreements, but not only and exclusively from them. The university should not only "be" in society; the institution is an essential part of it.

Finally, considering De Wit's (2024) constructive suggestion to offer contributions to thinking about internationalization based on our reality, the data of this research allow us to state that, after so many experiences accumulated by UFU's humanities professors, it may be possible to think about Distance Internationalization (IaD) actions - especially concerning Open Access Education - without, however, abandoning or neglecting other forms of internationalization. In addition to the internationalization actions already implemented by the UFU, IaD actions can bring important contributions, so that in the future it is possible to think about restructuring the UFU's Institutional Internationalization Plan (UFU, 2018)[19], with a view to ensuring and explaining effective contributions to internationalization.

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[19]UFU has an Internationalization Plan. Available at: http://www.reitoria.ufu.br/Resolucoes/resolucaoCONPEP-2018-2.pdf . Accessed on: Jun. 27, 2024.

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