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In the midst of presence and virtuality: a bet on reducing transactional distance through hybrid education

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Abstract

This article aims to shed light on the modus operandi of distance education and, specifically, on the possibilities of personalization and individualization of teaching through the implementation and management of active strategies in the offer of Blended education. This research was conceived as field research, carried out in a higher education institution, from February to December 2019. As a methodological proposal, we use an interventional study, supported by the clues of the cartographic method, which allowed us to understand how the planned implementation of hybrid education may be able to boost and promote a reduction in the transactional distance through strategies for the integration and harmonization of virtual and face-to-face environments. The mechanical perspective of learning, based on instructional paradigms, whose base is found in the understanding of the mere shading of traditional classroom education with classical distance education is still a practice in many educational institutions in Brazil and the World. This happens in misalignment with the adequate training to live and work in a post-industrial era, based on the knowledge economy, when more complex cognitive aspects must be considered.

Keywords: Blended education. Transactional Distance. Customization. Active methodologies.

1. Introduction

Our present is characterized as a period of transition strongly imposed by new technologies and forms of economic, social, political and epidemiological co-engineering. "We live in a trans world, we live in a transitive present" (AMADOR; NEVES, 2016), and as such, it imposes continuous inflections on the ways of being and being in the field of education.

This fast-moving reality points us to the need for a teaching system that is in line with the speed of changes in the 21st century. Thinking about education without bringing to the heart of the discussions the means by which it can be used as a strategy for its progress and qualification would be a little virtuous work. Digital technology and other educational technologies can and should be part of the necessary cross-cutting for this dialogue.

Therefore, this study is based on a welcoming field of multiple initiatives concerning digital and pedagogical practices and methodologies applied to distance education (DE). The contributions of these practices in recent decades invite us to reflect on the possible connections and their consequences in all teaching modalities, as a bet on a unique confluence in the service of education qualification.

With the objective of collaborating to face the challenges posed in the Brazilian educational context, we seek to understand, through this study, how the planned implementation of hybrid education in higher education may be able to boost and promote a reduction in transactional distance. Despite the Theory of Transactional Distance having more than four decades, it has been used to think about education systems in several countries, providing an important conceptual tool to the most varied forms of education (CABAU; COSTA, 2018). The analysis proposed in this study is based on the implications, circumstances and consequences of transactional detachment, such as: psychological, interactional, structural, methodological and, finally, related to student autonomy.

Thus, this study is configured as a bet on the transformative power of hybrid education, based on the analytical intervention of its production, implantation and operation. The challenge is to intervene in the offer of distance education, in order to provoke an integrated praxis, centered on the student, as a strategy to achieve an education capable of promoting more complex cognitive skills, having as an axis of analysis the structural tripod of the Transactional Distance Theory (MOORE, 2002; MOORE; KEARSLEY, 2007).

We affirm that there is no aspiration to defend a specific theoretical-methodological approach that postulates a unique approach to education. However, we put ourselves in a position of alliance with a humanist line, with a constructionist paradigm, supported by an ethical-aesthetic-political stance.

2. Theoretical frameworks

Education has positioned itself as the last frontier of the internet. The entry of formal education in cyberspace, paradoxically, occurred after it influenced all social, economic and political segments around the world (HORN; STAKER, 2015). The report The Global Learner Survey (THE GLOBAL ..., 2020) corroborates this statement by demonstrating that, in a global / global perception, 67% of educational institutions are less effective in using technology than other segments such as, for example, health and banks. The perception of the ineffectiveness of the use of technology in education among Brazilian students is even more expressive, reaching 75%. The insertion of education in these technological and communicational spaces favors new pedagogical practices and forms of learning that may enable the advancement of the educational system. In view of this, it is necessary to enter these territories for a sustained evolution of innovation in teaching that benefits the approximation with the student, regardless of the modality.

The education system had already pointed out the failure of its model, inherited from the industrial system, for decades. More than a century ago, John Dewey (1944) referred to this organization as inadequate for the formation of the subject, as it is a by-product of the industrial

model. Its inadequacy was naked and reached its critical and non-negotiable point at the time of the global sanitary and epidemiological crisis caused by Sars-CoV-2[1]. The new forms of teaching, mediated by technology, which were called in an emergency way in all corners of the planet - in some places, with more robust and complex use, in others, less - will forever change the way people learn, a fact corroborated by the Pearson report (THE GLOBAL…, 2020). Such occurrence calls the entire world education system to a vigorous discussion of these new and necessary strategies, however, in an organized and planned manner, which will ensure the institutional, pedagogical and human intentionality of these practices.

The classroom model, even with the best universities as a parameter, is no longer up to the real needs of students so that they can achieve success in their professional life (CHRISTENSEN; HORN; STAKER, 2013; HORN; STAKER, 2015) . However, it is worth mentioning that offering online teaching - online classes[2] or distance education classes - based on the premises of face-to-face teaching can promote, at most, only marginal gains to learning. Therefore, this theoretical / conceptual, transmissive logic, centered on the professor, would not constitute great contributions, which could be achieved with the use, for example, of strategies applied to the interaction and customization of teaching, as stated by Horn and Staker (2015).

The sterile, epistemological knowledge, without experiential experiences of the apprentice that makes it possible to re-signify it subjectively, conceived only from a theoretical-conceptual point of view, no longer responds to the speed of new market demands. It is the intangible assets, which are in the subjective sphere, that add value to the subject's production, such as, for example, knowledge, ethics and creativity, added to the collaborative capacity and to all other psychic constructions that characterize subjective engagement. These assets are inseparable

[1] Sars-CoV-2 is the scientific name of the new coronavirus, which causes COVID-19 disease.

[2] Remote class, in this study, refers to the emergency class model ostensibly practiced in the pandemic period and which should last for a longer period in the resumption of classes in the post-pandemic period.

from a learning model that is capable of forming the human being in its fullness. According to Virno (2008, p. 125), "[...] the intellect has become the main productive force, premise and epicenter of any poiésis". In this sense, Horn and Staker (2015) corroborate this statement by pointing out that the current challenge, in which more than 60% of the works are of an intellectual nature, no longer responds to the educational model. To think of a cognitive, intellectual competence, essential to the formation of the subject for life and for the world of work, is to consider the potency of the act of affecting and being affected that occurs in the encounter, in a kind of way of being, "the individuation of a new do-know-how" (AMADOR; NEVES, 2016, p. 50).

The model of mechanical learning, circumscribed in the transmission of information, is paradoxically antagonistic to the processes of differentiation, personalization and individuation eminent in education. Such a learning model points to a standardization of the way of teaching and evaluating students. Therefore, based on this assumption, professors could teach the same contents, in the same way and at the same pace, in a standardized strategy (CHRISTENSEN; HORN; STAKER, 2013; HORN; STAKER, 2015). This model is commonly perceived in the structure of courses in distance and face-to-face modalities, whose paradigmatic basis is instructive. This gap in the education system, based on the industrial economy, no longer makes sense in an era based on the knowledge economy, when other skills are required (VALENTE, 2014).

Personalizing learning, whether face-to-face or virtual, will require the education system to keep pace with the student's needs, according to their specific preferences and interests. Such a strategy will encourage new forms of classroom management and management that, in turn, will question naturalized pedagogical practices over decades.

For Horn and Staker (2015), in an environment that proposes to be personalized, there may be a variation of objectives, content, method and rhythm, and personalization carries the aspects of differentiation and individualization of the student. Still, for these authors (ibidem), the industrial model in force in the classrooms, in which the professor teaches classes in the form of lectures, limits any possibility of rigorously

advancing in order to focus on the centrality of learning in the student. The monolithic teaching system, centered on the professor, is against the processes of personalization. Student-centered learning aims to promote education that generates problem-solving, inquisitive and enterprising subjects, prepared with knowledge and skills, that develop creative, critical and ethical dispositions in the face of reality.

It is in the crack produced by the mismatch of the mechanical / industrial education system, with the needs of personalization, individualization and approximation of the student, that we bet on a hybrid operationalization of education that is sustained, to a certain extent, in a different position from traditional face-to-face teaching and teaching online and, in the same way, different from the simple combination of both modalities. Garrison and Kanuka (2004) state that hybrid education is not a layer of one modality superimposed on another.

For Christensen, Horn and Staker (2013, p. 3), the hybrid form is an attempt to offer "the best of both worlds". For these authors, in a proposal for sustained innovation, the operation of hybrid education would have the advantages of online education combined with all the benefits of the traditional classroom, however, following the parameters of the current models of the classroom. Nevertheless, this more conservative model sets up a simpler and more commonly operated pattern of hybridism.

Hybrid education refers to a formal education program, through which the student learns partly in virtual form and partly in person. These programs provide that the student has some kind of control over time, place and pace, enabling an integrated learning experience (HORN; STAKER, 2015). Such praxis can lead to a reduction in transactional distance.

The term "transaction" was conceived by John Dewey, in a 1949 publication, which, according to Moore (2002, p. 2), denoted "[...] the interaction between the environment, individuals and patterns of behavior ". For this author, the transaction takes place in an environment that has as a characteristic the separation between professors and students. However, it is worth mentioning that the separation that

causes specific behavior patterns and produces harmful effects to the teaching and learning process - since it allows the emergence of a gap in the relationships between professors, students and the institution - is not related to spatial and / or temporal, but to psychological and communicational separation.

This psychological and communicational space is the transactional distance, which can appear at different levels, in different strategies of distance education (MOORE, 2002; MOORE; KEARSLEY, 2007). However, this is not a characteristic only of distance education, as it can also occur in the interconnections between the actors of classroom and hybrid education. Therefore, it is worth highlighting the statement by Moore and Kearsley (ibidem), that transactional distance is more relative than an absolute variable. This means that there may be different degrees of transactional distance in different educational projects, but that somehow it will be present, depending on the management of the learning process management. For these authors, there are three groups of variables that point to the extent of transactional distance in an education program, namely: dialogue, structure and student autonomy. These variables will be treated in more detail in the discussion of the results of this study.

3. Research field - the place we talk about and the bets we make

The transformation of people's lives through education is the strategic mission of the institution that encamped this study. With a vocation for face-to-face education, this institution, despite its maturity, with almost a century in the educational market, has a distance education system still quite young, taking as a parameter the precursor programs of Open and Distance Education in Brazil, whose history[3] of offering distance learning courses, via digital platforms, has now totaled more

[3] According to Scherer (2016, p. 24), "undergraduate courses in distance education began to be offered in Brazil, in 1995. The Federal University of Mato Grosso (UFMT), through the Center for Open Education and Distance Education Instituto de Educação, offered the degree course in education, qualification in initial grades."

than twenty-five years.

It was in the folds of the management of the distance education segment of this institution that we came across some indicators of transactional distance in courses offered in distance education, specifically in hybrid courses. This finding caused this study to flourish.

Taking as a guideline the observation of the reaction and performance indicators of students, professors and tutors in hybrid courses, we begin to think initially about the following questions: what strategic bets are possible in the stylization of a hybrid education model that ensures co-engineering between professors and students and a possible unified conception of virtuality and presence in a harmonious and integrated way? What are the deflections present in hybrid courses that can increase the transactional distance in the institution's educational projects? Is it possible to mitigate the transactional distance in hybrid courses and expand the personalization of learning?

From these triggering questions, we adopted as a general objective of this research the analysis of the training practices that make up the hybrid education processes of the institution in question and its consequences in the following actions: to analyze the methodological strategies of the educational processes offered in the hybrid modality; investigate how current practices interfere with the production or reduction of transactional distance and the development of more complex skills in students; intervene in institutional strategies in relation to the enhancement of training practices that ensure a harmonious integration between the educational processes offered through virtual and face-to-face; mapping speeches and practices in relation to educational processes related to dialogue, structure and autonomy, and, finally, proposing and implementing intervention strategies in the training practices of hybrid courses that will favor the intersection and transversal fluidity of the contents planned for the virtual environments and face-to-face in the students' learning process.

This research was defined as interventional and was carried out as fieldwork with the distance education nucleus (NEaD) of the studied institution, from February to December 2019.

The field was chosen based on our trajectory of more than 10 years following the education management processes in this teaching network and taking into account the facilitating axis of immersion in this study, due to its processes open to innovation. It was the journey of more than six years, interactively accompanying the production and management processes of EaD operation in this institution that led us to build a problematic field of study. The production of the data was carried out on a daily basis, with the coordinators of hybrid courses, classroom professors, tutors, students and the multidisciplinary team of NEaD, in the referenced period.

4. Methodology - the clues of the cartographic method

The methodological challenge posed in this study led us to seek strategies that would help us to engender, with the participants, paths that pointed out clues on how to produce intervention in the management, production and operation of the hybrid undergraduate courses of the institution in question, in order to understand educational processes and their potential.

For that, we adopted the clues of the cartographic research method, which has its performance focus "entirely focused on an experiment anchored in the real" (DELEUZE; GUATTARI, 1995, p. 21). We can affirm that the use of this perspective has become coherent, since the cartographic method is committed to the historical and political processes and to the modes of subjectification that present themselves in the context of education. Thus, cartography was welcomed as an analysis perspective that we use in individual and collective conversations, and that, in this field, we already consider an intervention capable of producing transformation. For that, the methodological orientation we adopted was composed of intervention in the sense of transforming to understand. "The intervention puts us in front of the fact that our practices are not neutral, they are vectors that produce realities" (MORAES, 2010, p. 37).

In the production of data, we make use of conversations with the

coordinators of the hybrid courses and with the classroom professors individually and collectively, both by telephone, web conferencing and virtual learning environment (VLE) as well as through the classroom, mainly in meetings. training of coordinators, professors and tutors that were carried out every six months. We also use observations and study the analytical reports of satisfaction and performance of students with a qualitative look.

In addition, we use other resources, such as the diagnosis made with the tutors, course coordinators and all members of the multidisciplinary team at NEaD. These data were produced through responses in a semi-structured form, individually and presented by each actor in plenary and discussed collectively. We also make use of institutional documents of a strategic and pedagogical nature, such as the Institutional Development Plan (IDP), the Pedagogical Course Projects (PCPs), the Teaching Plans (TP), the Learning Plans (LP) and the didactic contents structured in the VLE for analysis purposes. The data from the conversations and feedback from professors, students, coordinators and multidisciplinary team were recorded in the field diary.

It is worth emphasizing that the cartographic method was constituted in an immersive and interventional way. That is, the methodological strategies were built procedurally in relation to the object itself and in line with all the actors in this study. Thus, the route was being established as we went along it, seeking to reach the lines of subjectivity, its flows, its relations and its possible interlacing.

In the table below, the subjects and the data production method are detailed.

Chart – Subjects of research and data production

Subjects	Hybrid courses	Data production
Course coordinators..	Electrical Engineering, Civil Engineering, Pharmacy, Biomedicine, Aesthetics and Cosmetics, Physical Education (baccalaureate), Physiotherapy.	Formal conversations - feedback at meetings, training events: coordinators, professors and tutors. Informal conversations - feedback and active listening to everyday processes: coordinators, professors, tutors and multidisciplinary team. Chats: students and tutors. Analysis of online requirements: students. Teaching and student performance indicators. Feedback record of pole coordinators via phone calls, emails and conversations via apps and VLE. Diagnosis - structured form applied to coordinators, distance tutors and a multidisciplinary team, answered and delivered individually by email and presented with individual arguments for the participating group. Pedagogical documents: PDI, PPC, PE, PA and teaching materials in the VLE. Academic management indicators - dropout, satisfaction and default. Field journal.
Students.	Represented in all hybrid courses - without classification by course.	
Face-to-face professors.		
Distance tutors.		
Unit coordinators.	Represented in all hybrid courses - without classification by course or location.	
Multidisciplinary team.	Pedagogical coordination, tutoring coordinator, production and media coordination, instructional designers, multimedia and graphic designers, technical assistants directly supporting the VLE that made up the structure.	

Source: Prepared by the author.

5. Result and Discussion

The data were analyzed using the typology built around the most elementary components that inhabit the universe of relationships in the educational field and determine the transactional distance: the dialogue, the structure and the autonomy of the student (MOORE, 2002; MOORE, KEARSLEY , 2007). For these authors (ibidem), the extent of transactional distance in a course occurs due to these groups of variables. These basic references were orientative to analyze the data produced, in order to intervene and understand the amplifying strategies of transactional distancing, aiming to result in a qualified approach of the student, with a view to personalization, differentiation, and individualization of the student in the hybrid courses of the institution in question.

In line with the proposal for interventional, cartographic research, this study was not responsible for compartmentalization in phases and chronological / temporal steps, since the entire research process took place in a fluency that was established as the method evolved. However, we organized the data for the purposes of didactic analysis. In this sense, it is important to highlight the liquidity of the margin of the stages: data production, analysis and intervention; because these periods took place continuously and without temporal discipline between them.

5.1. First point of analysis: structure

The structure of educational programs was the first criterion used for data analysis, although aspects of the trilogy - dialogue, structure and student autonomy - are inseparable and are established in a natural and fluid intertwining with each other.

According to Moore (2002), it is the structure that translates teaching strategies and assessment methods. In addition, it expresses the rigidity or flexibility of the educational objectives of the course. Therefore, the structure, represented via methodologies, methods and educational philosophy of the HEI courses on screen, can be a determining factor to increase or reduce transactional distance. In this study, we consider as structure, for analysis purposes, the following pedagogical documents:

IDP, PCPs, TPs, LPs and the contents made available in the VLE, including the interactive resources. For this author (ibidem), the quality of the structure variable will depend on the care with which these pedagogical elements are structured.

For the analysis of this typology, initially, we evaluated the institutional and pedagogical documents, as they are essential for the organization of the contents and for the management of learning. We chose to start the analysis with these data, as we understand that it is in these spaces that the birthplace of the courses reside and that the philosophical bases and the intention of its structural didactic-pedagogical organization are inscribed. Then, we focus on the intervention and analysis of the data produced with the NEaD team and the professors and course coordinators, and, finally, on the content and teaching materials of the courses made available in the VLE.

From the documentary analysis of the hybrid courses on screen, we can see that all had a humanist pedagogical rhetoric and of a constructionist / interactionist nature as opposed to the instructionism commonly found in courses offered in the distance modality. It is important to point out that this record is expressive, since the pedagogical strategies that are supported by the instructional paradigm can be a significant trigger for the amplification of transactional distancing, which generally establishes a structure with more rigid directions and goes against the possibility of education personalization.

Below is an excerpt from one of the documents, the content of which, in a very similar way, was found in all PPCs of the institution's distance / hybrid courses:

> [...] train autonomous, creative, reflective and innovative professionals, who use the critical dialogue about social reality, culminating in the practice of "learning to learn" when "learning by doing", anchored in the collaborative and entrepreneurial spirit, present in our distance education methodology, for through the interaction between students and professors (FUTO, 2015, p. 26-27).

The theoretical-conceptual basis present in the pedagogical documents, supported by a constructivist and interactionist paradigm, meets Papert's proposal (1994) when he affirms that knowledge is built in a dialogical environment and that the student-professor interaction allows the construction of knowledge from action. In this way, the analyzed documents have a rhetoric that corroborates with the proposal of the referred author (ibidem) by bringing to the centrality of learning the pedagogical and psychological principles of the art of "learning to learn" and "learning-doing", in intentionality to provide critical, reflective and meaningful learning to students.

The data in these documents points to an institutional-pedagogical concern with the students' development, in order to promote learning from action and intervention in their social reality. In the excerpt from the IDP document, transcribed below, we find excerpts that are consistent with the PCPs.

> We understand that students become subjects of their learning when they develop an awareness of how learning occurs; when he understands, that is, when he develops the ability to perform a different interpretation in relation to what he learns, taking a critical and reflexive position in relation to learning. The student then moves from understanding to developing new knowledge. [...] The pedagogical proposal must lead the student to interact with other people who accompany him in the process of understanding the construction of new knowledge. [...] belief that it is the individual who learns in a direct relationship with the construction of knowledge. It is necessary to teach how to learn (FUTO, 2018, p. 123).

The intentions described in the PDI maintain synergy with the constructionist / interactionist proposal and corroborate Behar's (2009) statement. According to this author, the interactionist paradigm is characterized by the interaction between the student and the outside environment. Learning takes place primarily through the action, construction and awareness of students based on the cognitive coordination

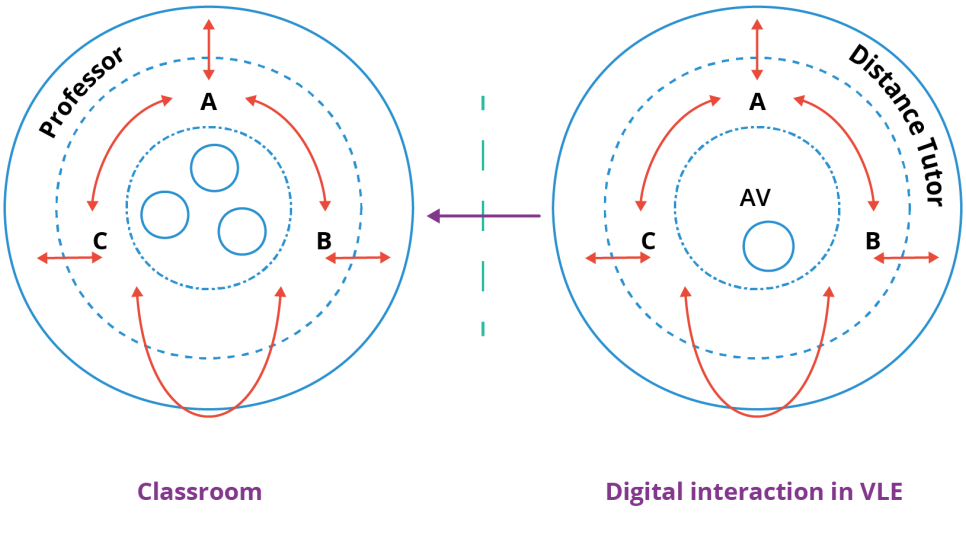
of the actions performed. Thus, resources and teaching strategies are centered on the interaction between student, professor and content.

In the documentary analysis, we identified a direction of continuous relationship between the actors in the learning process, who are mitigators of transactional distance. Therefore, the analysis of the IDP and PCPs indicates a clear institutional and pedagogical positioning, with intentions present in its planning that suggest a constructionist proposal.

Likewise, the narratives of the NEaD course coordinators and multidisciplinary team were in coherence with the analyzed documents, maintaining synergy with a didactic-pedagogical proposal conducive to environments with a constructionist approach in the distance learning modality, in which the courses are inserted. hybrids. Such an approach points to an intentionality of their actions, as it aims to meet the interests of students from cognitive productions linked to their context, their social reality and collective interaction, seeking to enhance the basic psychological processes necessary for learning, such as: motivation, affection, emotion, attention, memory, thought and language.

From the analysis of these data, we can consider that the transactional relations from the point of view of the structure, considered in isolation, can present a construct that points to a low transactional distance, since the transactional distance, according to Moore (2002), it will always be relative and not null. The methodological proposal is based on a multirelational relationship between the students (A, B and C) and the professor, the students among themselves and each one with their social reality (RS) through the proposed projects. The transactional relationship is shown in figure 1.

Figure 1 – Transactional distance model of hybrid courses - PCP and PDI structure



Source: Prepared by the author.

It is worth mentioning that, although the institutional documents have characteristics indicating a flexible structure, with a planned multidirectional dialogue, we can observe in Figure 1 the presence of a split between the virtual and face-to-face learning methods in the planning, pointing to an impermeable structure between the students. two environments, with specific parallel structures, hindering the processes of individualization of learning and, in turn, the amplification of transactional distance.

Still, in a divergent way from the rhetoric of the IDP and PCPs documents and from the narratives produced by the course coordinators and the NEaD team above analyzed, we identified, in the analysis of the LPs, some deflections that are possible indicators of the cause of the amplification of the transactional distance in the hybrid courses of the institution in question. We consider this information important, as it is these pedagogical documents that translate the intentions described in the PCPs and IDP into actions.

According to the report by the NEaD team, it was necessary to change the interactive actions proposed in the PAs initially planned, because

the number of students per curricular component / professors and the hired hours of tutors led, compulsorily, to the need to reorganize practices described in the LPs and, consequently, in the form of interaction in the VLE and in the face-to-face meetings.

In the VLE we identified materials and activities that are characteristic of an instructional paradigm, with targeted orientations, with less active and multidirectional dialogue between students, professors and tutors. According to the report of the team and the course coordinators, these changes took place in substitutions for collective productions that required greater engagement by the professor and the student. This was necessary to make it possible to monitor the professor within the contracted hour, as there was a mismatch between the demand for interactions and the contractual availability of these actors. This fact impacted not only the proposal for learning in digital media, but also the logic of face-to-face meetings, these were organized around expository classes, causing a split between digital content and face-to-face content even more sharply than previously planned.

This fact is a reality that can affect all institutions and this had already been warned by Horn and Staker (2015). The weight that is placed around the costs of the operation, invariably, can become a hindrance to the implementation of strategies to personalize the learning processes. These strategies, in turn, demand an adequate amount of time for the professor to be able to dialogue didactically with the student, individually, and with the group, collectively. This corroborates the concern raised by these authors (ibidem), when they point out that the personalization of learning is based on many challenges, one of which is cost control, which is increasingly necessary in public and private institutions.

The narrative of one of the teacher-tutors, responsible for promoting interaction in the VLE, concerning the component under his responsibility, was located in several narratives of other professors when they were asked to interact more readily with the students,

> I have dedicated myself as much as I can, but if I am going to keep interacting with students according to the demand foreseen in the projects, I would have to have triple the contracted workload (P[4]).

The aborted, justified interactions, conducive to the promotion of engagement, had been planned in the act of production and were in coherence with the PCPs. We observed that these rearrangements in the LPs and in the VLE contents paradoxically supported a practice in line with the instrumentalist paradigm.

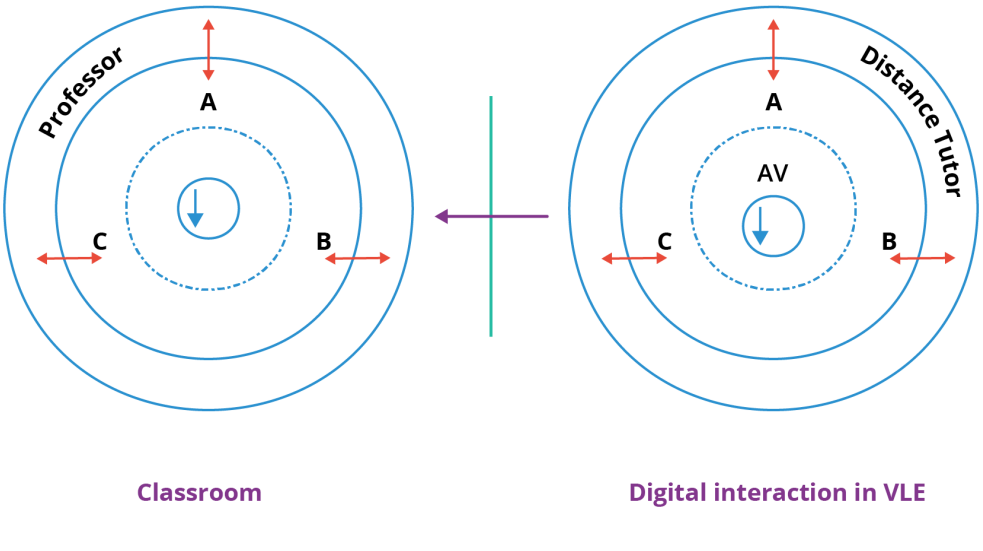
According to Pimentel (2020), in the massive instructional approach, which is still widely practiced in distance education, the resources of digital information and communication technologies (ICTs) represent an evolution of the media and do not modify the mass communication model that, by its nature, it is hegemonically unidirectional, typical of this approach. For Alvarenga (2018), this conception is individualistic and its didactic-pedagogical approach is based on the transmission of content. Behar (2009) corroborates this statement, emphasizing that in the instructional approach, knowledge is not built, but is transferred to the subject, as the student is considered a blank slate and knowledge comes from abroad.

Despite the automation and the presence of fewer interactive collective resources in the VLE, we found the presence of forums and integrative projects carried out on the virtual plane, but insufficient to ensure a continuous multidirectional interaction and dialogue process between the actors: professor, student and community. In addition, the learning plan of the face-to-face professor left openness for expository classes along the same lines as traditional classes common to face-to-face teaching. In this format, there was a risk of overlapping content, there was no contribution to the personalization of learning and we collaborated to offer a course with an inefficient hybridism. The changes that occurred, in turn, denounced a structure inclined to rigidity, contradicting the proposal of the pedagogical documents.

[4] The letter P was used to maintain the professor's anonymity.

Figure 2 represents the transactional distancing scheme observed from the rearrangement carried out, without the proper pedagogical planning, to meet the needs of cost reduction.

Figure 2 – Transactional distance widened



Source: Prepared by the author.

We noticed that, in this model, the transactional relationship both in the aspects caused by the structure and by the second variable of the typology, the dialogue, which occurs between digital content and content in the classroom, has become more watertight. The relationship between students and between teachers has become more one-way and one-way. There is a strict separation between the virtual and face-to-face environments, represented by a continuous line that separates them.

The proposal matched an instrumentalist-massive model. The drawing points to the split between the two environments, weakening the power of hybrid education. Figures 1 and 2 show a hybridity model commonly used, in which there is only a junction of the face-to-face model with the virtual offer model. In this study, we will refer to this model as semi-face-to-face, as opposed to the hybrid model whose transforming power allows us to flow seamlessly between the virtual and face-to-face environments.

In our interventions, we observed two models of offers with little (figure 1) or very little (figure 2) integration and harmonization. This shows us that, in the moment before our interventional research, there was no didactic-pedagogical planning that could indicate a model of integrated hybrid education, which would ensure a fluidity between classroom and virtual content and that would expand the exploration of processes more complex cognitive problems in students through the disruption of traditional distance and classroom offer models.

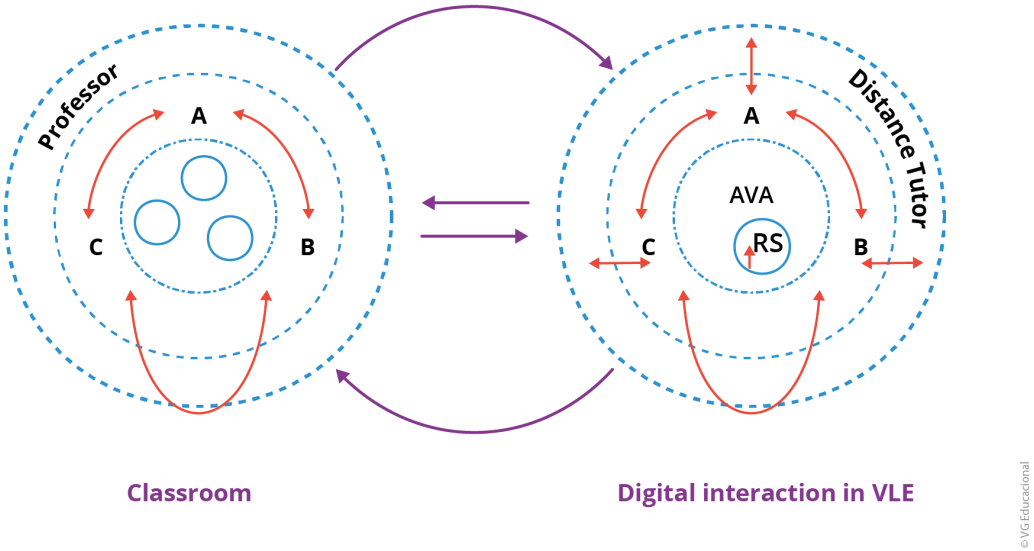
In this regard, cartographic research has allowed us to emerge with the field and redesign flows and possible new paths. From this, a new organizational structure of the team of teachers and tutors was built, together with the NEaD coordinators and the coordinators of the hybrid courses, with quality gains and cost reductions.

In the new pedagogical-methodological proposal implemented, we ensure a personalization of learning, providing a greater engagement of students based on the bases of 'learn to learn' and 'learn by doing'. All of this in an integrated way, that is, ensuring a smooth flow between the VLE content and the planned face-to-face content. To this end, semi-open scripts were developed for face-to-face teachers articulated with the triggering events in the VLE. These trigger events had the function of being preparatory elements for the face-to-face meetings and proposed the narrowing of the correlation of the contents, activities and orientations in the VLE with the activities to be carried out in the face-to-face meetings.

This intervention significantly increased the engagement of classroom teachers, who came to be called mediating teachers - breaking with the logic of classroom teaching. With this same objective, another intervention was carried out: the rupture with the terminology "face-to-face class" to define face-to-face meetings. The shift from the significant "class" to "face-to-face meetings" allowed teachers-mediators, online tutors and students to have a clear understanding of what was expected of each actor in the virtual environment and in the methodologies planned for face-to-face meetings.

From the intervention, the structure was realigned with the pedagogical and philosophical purposes, following a principle of austerity of the HEI, demanded by the economic moment that the country is going through and, more importantly, making the structure flexible. In this model, the role of the teacher is no longer that of lecturer of expository classes, leaving the centrality of the teaching space to make room for the protagonism of the student in his relationship with his productions and in his relations with the community, resuming, through his shift, the constructionist paradigmatic characteristics in the transactional relationship, which are presented in figure 3.

Figure 3 – Reduced transactional distance



Source: Prepared by the author.

This model enabled the improvement of the communication process and the integration between the contents of the virtual environment and the face-to-face meetings, promoting a disruptive hybrid education.

5.2. Second point of analysis: dialogue

As well as the structure, the extension, the nature and the characteristics of the dialogue are determined by the educational philosophy of the course, by the organization of the curricular components, by the

actors and by the environmental variables, such as the language and the means of communication that can be established, different way, in the logic of distance education (MOORE; KEARSLEY, 2007).

According to Moore (2002), the establishment of dialogue in learning relationships seeks a greater understanding of the student and the less transactional distance, the more the dialogue starts to have positive qualities, to be constructive and valued among students, teachers and other actors in the process , assuming, in turn, a multidirectional dimension. According to Moore and Kearsley (2007, p. 241), "[...] dialogue is not the same as interaction, although interactions are necessary to create dialogue". Thus, the strengthening of this variable in the transactional distance trilogy is a factor of great importance in the implementation of an effective hybrid education.

From the verification of the processes established in the hybrid education of the institution in question, the intervention in the dialogue intercrossing modes, created from the synergistic confluence with the structure of the courses, in all its documents and execution, favored a greater possibility of personalization. and individualization of learning. This was possible because, as the student intervened in his social reality from the projects developed and / or oriented in the face-to-face and virtual meetings, education was being personalized with its possible ways of learning and with its regionalized reality.

The face-to-face meetings started to be aimed at amplifying the dialogue, orientation and exchange of experience between students and teachers. Thus, strategies for developing high cognitive skills, such as the ability to analyze, evaluate and create, have become the focus of face-to-face meetings. This active strategy broke with the traditional classroom model and with the unidirectional dialogue present in the rigid instructional pedagogical structures common to most distance education models. Thus, we were able to resume, during the course of this intervention study, the logic of dialogue and solidify the structure proposed in figure 3. Flexible structure, with more multidirectional dialogue and personalization, consequently promoting a reduction in transactional distance.

5.3. Third point of analysis: student autonomy

During the study, the analysis of the third piece of the trilogy - student autonomy - proved to be different from what is proposed by Moore and Kearsley (2007). For these authors, the more transactional distance, the more the student develops autonomy. We agree on that. Programs with rigid structures, little dialogue and an instructional paradigm lead us to affirm that the student should develop autonomy or escape from the school environment. In this aspect, there is no other way out for the student in a state of detachment than the development of autonomy so that he can proceed in a favorable learning condition. However, we affirm that the reduction of transactional distance made from flexible structures, continuous and multidirectional dialogue between students, teachers and concrete social realities, made possible through the management of active learning strategies, also promotes the student's autonomy in a very effective way, effective and collaborative, not necessarily the transactional distance being the only proprietor of the promotion of the student's autonomy.

For Moore and Kearsley (2007), the concept of autonomy means that the student has skills that make him able to make decisions about his learning process and to find resources and ways to plan the best way to study. In this conception, the hybrid course model proposed in this intervention process not only considers the complex capacity of the student, but also supports and supports him in the development of his proficiency, which, according to Garrison and Kanuka (2004), is the student's ability to build meaning and the willingness to start and keep learning.

6. Final considerations

In this study, we intervene in favor of disrupting the traditional didactic-pedagogical model of hybrid courses in terms of presence and their coherent integration with virtual content. To this model of hybrid, disruptive education, Christensen, Horn and Staker (2013, p. 3) warn that "they tend to be more difficult to adopt and operate".

Likewise, it was necessary to change the paradigm in the way of elaborating and operating the contents offered in a virtual environment. Garrison and Kanuka (2004, p. 99, our translation) call our attention to the fact that "it is not enough to deliver old content in a new medium". Horn and Staker (2015) corroborate this statement by emphasizing that hybrid education is much broader than the mere use of technologies and devices in the classroom. Thus, we call attention to the fact that hybrid teaching is not merely about making content available in digital media and equipping traditional classrooms with technological devices and programs, although hybrid teaching is easily mistaken as a simple offer of added face-to-face classes. digital content offer.

In this study, we conceived of hybrid education as an integration of learning experiences that take place in face-to-face and online format, in a harmonious way, respecting the student's rhythm and time, ensuring integration, through a flexible structure, with dialogues multi directional and multi relational and with active strategies to promote student autonomy. All of this in favor of reducing transactional distance, personalization and individualization of education.

This interventional study allowed us to take advantage, in a coherent and univocal way, of the best and the most innovative in both strategies, with the objective of expanding the capacity for dialogue, based on a psychological and spatial approach of the student, via planned curricular programs. for this purpose.

Thus, we affirm that hybrid education is not about doing more of the same, therefore, it does not only require finding a right mix of technologies or increasing access to face-to-face learning, but also rethinking and redesigning the teaching-learning relationship that involves subjective engagement and a resignification of the roles of teachers and students and a restructuring of the institutional policy itself (GARRISON; KANUKA, 2004).

Thus, we can conclude that it is possible to reduce the psychological and communicational space in hybrid courses when we take care of what is in the midst of face-to-face and distance education. But, for this, it is necessary to plan and offer that can resignify roles, rethink and

redesign the objectives, contents and structures of the course, plan strategies in order to consider the expansion of a multidirectional dialogue, with active strategies of subjective student engagement that enable the promotion of their autonomy. Still, it is necessary to provide necessary support to teachers and students. It is these spaces that define the degree of transactional distance and that, if well managed, can promote an innovative, disruptive and personalized education.

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