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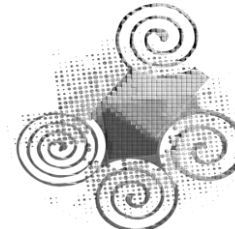
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CHALLENGES ON THE TEACHING OF MANAGEMENT THROUGH BLENDED EDUCATION

DESAFIOS DO ENSINO DE ADMINISTRAÇÃO MEDIANTE EDUCAÇÃO SEMIPRESENCIAL

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Abstract

This study analyzes the challenges of blended education (BL) of Management from teachers' perspective. We conducted semi-structured interviews with seven university professors with experience in traditional, distance and BL modalities. Data analysis was performed through content analysis. Our findings suggest that universities predisposed to adopt the BL seek better-trained teachers, with knowledge and skills on digital platforms and open to new technologies. Our findings evidence that teachers can use alternative, less-complex and less-expensive platforms to interact with students and encourage them to be active in the BL environment. Finally, motivated, autonomous, disciplined and committed learners are expected in BL environments.

Keywords: Blended Learning. Qualification of Administrators. Education Technology. Teaching of Management.

Resumo

Este estudo analisa os desafios da educação semipresencial (ES) de Administração a partir da perspectiva dos professores. Foram conduzidas entrevistas semiestruturadas com sete professores universitários com experiência nas modalidades de educação tradicional, à distância e semipresencial. A análise dos dados foi realizada por análise de conteúdo. Os achados sugerem que as universidades predispostas a adotar a ES buscam professores mais bem treinados, com conhecimentos e habilidades em plataformas digitais e abertos a novas tecnologias. Nossos achados evidenciam que os professores podem usar plataformas alternativas, menos complexas e menos caras para interagir com os alunos, para incentivá-los a permanecerem ativos no ambiente de ES. Finalmente, alunos motivados, autônomos, disciplinados e comprometidos são esperados nos ambientes de ES.

Palavras-chave: Educação Semipresencial. Qualificação de Administradores. Tecnologia Educacional. Ensino de Administração.

Introduction

Higher education in the 21st century aims to achieve three goals: to develop the activities of specific knowledge in the major disciplines, to promote the development of essential generic skills and to stimulate the reflection of the lessons learned in the application of everyday life (Njenga & Fourie, 2010; Schneckenberg, Ehlers, & Adelsberger, 2011). For Johnson and Aragon (2003), ideal learning environments should address individual differences, motivate students, avoid information overload, create a real-life context, drive social interaction with practical activities, and drive reflection.

But how to meet these goals, with overcrowded classes, common in emerging economies' universities and colleges? Full classrooms became common because of the need to graduate a larger number of professionals to meet market demands (Baepler, Walker, & Driessen, 2014), due to the budget contraction of many universities and because of the economic recession suffered in many parts of the world, linked to the increase in unemployment that drives people to continue studying (Barr & Turner, 2013) and also, due to the need for time and space flexibility required by an increasingly diverse population (Boelens, Voet, & De Wever, 2018).

The answer can be found in the use of digital information and communication technologies (ICTs) in education (Barr & Turner, 2013), to complement various learning activities, changing school dynamics, especially regarding the organization of time and space, transforming both the relationship between teachers and students, the interaction among students and the relationship of learning with technology (Whiteside, Jorn, Duin, & Fitzgerald, 2009). ICTs have an important ally on the Internet by enhancing technology-mediated education for the generation of higher quality students.

Horn et al. (2015) define blended learning (BL) as the formal education program in which students learn the content and instruction of the subjects, also using online resources that allow them to have control over the time, place, pace and progress of the courses. The other part of the teaching takes place in the classroom, where the learner can interact with other students and count permanently with the supervision of a teacher or tutor.

According to Kim (2007), among some of the reasons for implementing hybrid programs, it can be mentioned: increased learning effectiveness, improved learning convenience, better institutional reputation because of the use of technology platforms, cost savings related to instructors reduction, lower demand for university and school physical space, reduction of motor vehicle traffic, less parking congestion, among others.

Otrell-Cass et al. (2014) highlight that both the physical and virtual environments have their strengths and BL can capitalize on the advantages of both environments. Among the benefits: improvement in the collaboration, interaction, and communication of students, enabling better results in the understanding of concepts, analytical skills, and group integration. BL also has challenges: accessibility problems, poor or intermittent internet bandwidth in some regions, increased workload of teachers, lack of training and/or acceptance of technology and methodologies (Gunathunga & Hewagamage, 2015) and community concern for the quality of courses and careers (Oliveira Jr., 2018), to name a few.

In Brazil, distance and hybrid education programs began in the 1990s, initially led by public institutions, as a result of the publication of "Law and Guidelines and Bases for Education" (Law 9394/1996) which recognizes distance learning as a methodology with official value; and massively since 2002, with the participation of the private education sector (Giolo, 2008). BL in Brazil requires the inclusion of the integrated use of ICTs for the accomplishment of pedagogical objectives, as well as face-to-face meetings and tutoring activities, foreseeing the existence of qualified teachers, with specific teaching hours for face-to-face and distance moments. However, all evaluations must be carried out exclusively in person (Brasil, 2016).

Having stated these arguments, the objective of this paper was to analyze the BL modality of the Management career, evidencing the challenges of this approach and pointing out the changing role of both teachers and students, in the perspective of university professors with experience in traditional, distance and blended education, who exercise the teaching in various educational institutions in southern Brazil.

In the context of this study, notwithstanding the existing literature on educational environments suggests that their characteristics impact both teaching and learning, few studies support their claims with some type of empirical evidence (Topu & Goktas, 2019; Urias & De Azeredo, 2017; Whiteside et al., 2009). Also, research related to this type of teaching in non-Anglo-Saxon universities is scarce (Pallisé, González, Vergés, Daniel, & Fonseca, 2018). Thus, a research gap was identified, since this study deals with the perceptions of teachers on BL and its impact on the education of students, including the educational strategies and technologies.

Theoretical Background

Blended Learning: empowering education

Blended learning, blended education, hybrid, combined or mixed education is an e-learning methodology in which part of the educational activities are carried out totally at distance and part within the classroom (Valente, 2014). Although there is no consensus, this approach can result in the fulfillment of the pedagogical objectives with reduction of classroom hours, compared to pure classroom disciplines (Porter, Graham, Bodily, & Sandberg, 2016).

This method is characterized as more self-taught, collaborative and focused on problem-solving, in which resources can be virtual and physical, including materials with technological support and printed resources. The active integration of the diverse educational approaches allows the students to obtain, evaluate and produce knowledge, using a variety of learning methods, resources, and experiences (Kurubacak, 2006).

Horn et al. (2015) propose four models used in most BL programs: a) “flex”, in which the teaching process occurs from the online platform, from which the content and instructions are sent for the student. The flexible part corresponds to the support of the teacher or tutor in the face-to-face moments; b) “blended-mixed” is characterized when the student chooses to take the course completely online and complements with other face-to-face subjects; c) “virtually enriched”, which privileges online disciplines, with the apprentice being able to perform extra face-to-face activities, such as practices, labs or other disciplines and; d) the “rotation” model, which provides the student with the opportunity to alternate all the previous modalities (Valente, 2014). Following, in Table 1, some relevant empirical studies on BL.

BL encourages individuality, cultural diversity, power-sharing, and greater freedom in colleges, a perspective that, in compensation, requires a reinforced model and a critical curricular structure, protected by a change in higher education paradigms, involving institutions, teachers and apprentices in the construction of more productive and interactive classrooms (Kurubacak, 2006; Verschoore, 2019). Moreover, BL consists of a more flexible teaching modality, and for this reason, it has been gaining more adherence in Brazilian universities as an alternative of expanding and democratizing access to higher education (da Silva et al., 2011; de Campos Maia & Meirelles, 2003).

Table 1

Former academic studies on hybrid education models.

Country	Authors	Results
Spain	(Pallisé et al., 2018)	The authors analyze the university hybrid learning system in the Catalonia region, making a 6-year comparison, in which they evidence a significant advance in blended learning regulations, greater flexibility and a higher level of accreditation of hybrid models. However, they recognize that the system has not achieved the forecasted growth in the number of courses and educational levels.
Malaysia	(Wright, 2017)	This qualitative study investigated the perceptions of the apprentices on the use of English grammar lessons in online and classroom environments, concluding that the virtual part could enrich the course, but does not replace the value of classroom instruction.
Brazil	(Urias & De Azeredo, 2017)	This study aimed to investigate the application of active blended methodologies in the teaching of Financial Administration and its influence on the development of student autonomy.
United States	(Butz & Stupnisky, 2016)	The authors studied the relationship among the satisfaction of needs, motivation and fulfillment of objectives in hybrid environments, of graduate students. The results showed that BL students experience lower levels of proximity, confirming the direct relationship between the teaching format and the motivational profile of the students. It was concluded that four issues have a strong impact on the synchronized BL: the relationship with peers, technology, the teacher or instructor and the structure of the program.
United States	(Baepler et al., 2014)	The study tested the effectiveness of BL, demonstrating that the need for face-to-face hours is reduced by 66%, without diminishing the students' learning experience or its results, compared to the traditional model.
New Zealand	(Otrell-Cass et al., 2014)	The authors assessed the technologies used in BL as Moodle (learning management system) and Wallwisher (online newsletter). The social, cognitive and pedagogical dimensions of online student communities were examined, showing that the BL increases new layers to the construction of knowledge, enhancing the authority and responsibility of the students.
United States	(Graham, Woodfield, & Harrison, 2013)	The authors evidenced three levels of BL adoption: awareness and exploration, early adoption and implementation, and implementation, maturity, and growth.
Mexico	(Domínguez, Muñoz, Gastelú, & García, 2010)	The authors evaluated the degree of acceptance of teachers of the BL model, concluding that teachers recognize the change in the teacher's role, from being a simple transmitter of knowledge towards a facilitator that helps students develop the required competencies of the pedagogical project.
United States	(Whiteside et al., 2009)	The authors used the PAIR model (Interdisciplinary program of evaluative pedagogy of teaching environments with emerging technologies) to evaluate the effectiveness of BL programs with students and teachers, finding that more than 85% of students recommend this methodology for other disciplines and a consensus between teachers and authorities about their educational potential.
Turkey	(Kurubacak, 2006)	Emphasizes the need to develop a curriculum planning oriented to BL, taking the following care: the materials must be clear in language, sense of completeness, focus on the technological skills of the learners and the progress of teacher-student interaction.

New roles for teachers and students

According to Porter et al. (2016), it is currently a reality that many universities are adopting BL and combining face-to-face instruction with technology-mediated instruction. Graham et al. (2013) propose that various factors influence the adoption and implementation of the hybrid modality, which include strategy, structure, and support by proposing a three-level model of university BL adoption: Level 1, awareness and exploration, in which the institution does not have a specific strategy, but its managers are aware of the need for BL and offer limited support. Level 2, of early adoption and implementation, occurs when the institution has a strategy for BL and implements new policies and practices. And the third level, of mature implementation and growth, in which the institution has well-established strategies, structure and comprehensive support.

The growth of distance and hybrid modalities and the advent of ICTs offer learners an important variety of learning resources and communication tools to contribute to their education with a reflective, continuous commitment, active and with a critical sense, looking for positive results, such as high grades and high levels of satisfaction (Kong & Song, 2015; Mattar, 2018). Several studies on the performance of BL students highlight its positive impact, as apprentices value the freedom to study at their own pace, which can increase participation, especially for the shyest students (Wright, 2017).

On the teacher's side, the technological revolution of the last decades has prompted teachers to reconsider their way of teaching using ICTs. Today educators must have the necessary skills and competencies to teach the content and technology by integrating them into the curriculum (Mayedwa, Stoltenkamp, Braaf, Khan, & Mufweba, 2016). Deed and Lesko (2015) affirm that despite the enormous possibilities of openness created by BL, it is still incipient because the teaching practice is shaped by previous experience, which means that the possibilities generated by the new space of learning are impacted by routine, institutional memory and by the teacher's ability to adapt.

The use of ICTs in the educational arena allows students to adopt the educational content differently, offering self-directed activities and tasks that must be completed at specific times. ICTs also facilitate greater participation of trainees, through digital forums at convenient times, which allows the inclusion of various challenges for educational departments, such as the delivery of an efficient curriculum and the creation of flexible learning environments that improve the interaction between teachers, students and educational content (Mayedwa et al., 2016).

Research methodology

This qualitative-interpretive research (Merriam & Grenier, 2019) aimed at understanding the BL approach of the Management career, evidencing its challenges and pointing out the changing role of both teachers and students. Next, the sampling method, data collection and categories, and analysis techniques are described.

Research sample

To understand the perspective of the professors of Management who work in BL environments, seven teachers were selected, working on the same number of universities, with at least five years of experience teaching in the traditional, distance and BL modalities. We used a homogeneous purposive sampling method (Creswell & Clark, 2015). In this case, the selected professors obtained their Ph.D. degrees in the same university and teach in institutions with face-to-face infrastructures in the South of Brazil, in the cities of Curitiba, Jaragua Do Sul, Blumenau, and Florianopolis. According to Table 2, teachers have an experience of more than 10 years of teaching, being at least five years dedicated to blended teaching. As for their academic training, all professors hold a Ph.D. degree, in Administration or Accounting.

Data collection

This study's corpus came from seven semi-structured interviews, conducted in Portuguese, digitally recorded and transcribed, in addition to the information available on the respective universities' websites. Data collection was held between August 2017 and March 2018. The average duration of each interview was 63 minutes, totaling 6 hours and 19 minutes of recording. After transcribing the interviews into English, the responses were coded (Flick, 2017).

Table 2

Interviewees profile

Research Interviewees	Basic characteristics	Face-to-face courses	Blended learning courses
Interviewee 1	Dean of the faculty. Male, Ph.D., age 33, 12 years of experience in teaching, 5 on BL	Various Accounting courses	Cost Accounting, Human Resources
Interviewee 2	Professor and tutor, female, Ph.D., age 52, 10 years of experience in teaching, 8 on BL	Commercial Management, Management Processes	People Management, Finance, Accounting, Marketing, Methods
Interviewee 3	Undergrad professor, male, Ph.D., age 47, 17 years of experience in teaching, 8 on BL	Human Resources	People Management, and Business Games
Interviewee 4	Postgraduation professor, male, Ph.D., age 44, 18 years of experience in teaching, 5 on BL	Planning and Strategic Alliances, Export	Thesis Supervision, International business
Interviewee 5	Postgraduation professor, male, Ph.D., age 38, 14 years of experience in teaching, 12 on BL	General Accounting Costs, Finance, Management Theory	Planning, Finance, Financial Math
Interviewee 6	Undergrad professor, female, Ph.D., age 39, 17 years of experience in teaching, 7 on BL	Management Theory	Business Management, Higher Education Management
Interviewee 7	Undergrad professor, male, Ph.D., age 41, 12 years of experience in teaching, 5 on BL	Various Management and Accounting subjects	Accounting I, II

Data analysis

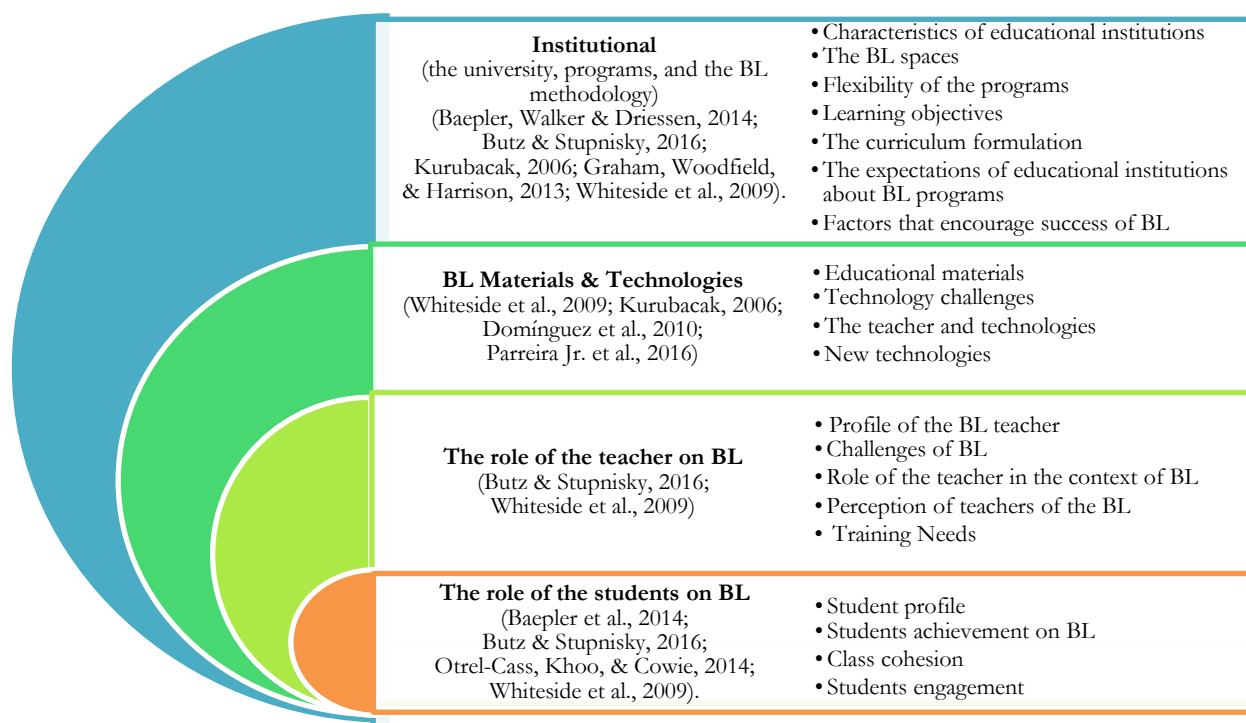
We used the content analysis technique (Flick, 2017) that distinguishes three moments: content abbreviation, explanatory analysis, and content structuring analysis. During the content abbreviation, the less relevant texts are omitted (first reduction), and similar and redundant content is condensed and summarized (second reduction). The explanatory analysis of the content clarifies diffuse, ambiguous or contradictory parts and the structuring analysis looks for formal types or structures in the material. In this study, the analysis was carried out with the help of QSR NVivo v.12 software for coding and ranking the data resulting from the transcriptions of the interviews.

Qualitative triangulation (Creswell & Clark, 2015; Flick, 2017) was accomplished through the use of various sources, both primary (interviews) and secondary (documents); in the construction of the interview script and the coding and interpretation of the results, reviewed by the group researchers.

Research categories

During the literature research, categories and subcategories were identified and classified (Carmona & Parisotto, 2017; Flick, 2017), as shown in Figure 1.

Figure 1

Research categories, thematic units, and authors.**Results**

In this section, a brief description of the thematic units identified in the transcribed texts (listed in Figure 1), complemented by citations from the interviews.

Institutional: the university, program, and methodology

a) Characteristics of the institutions: The teachers consider their institutions to be traditionally face-to-face, due to the youth of the distance and BL modalities, which arose just over a decade ago in most Brazilian universities, which is why there is a perceived disparity in the structure, strategies, and support for this type of education in the analyzed institutions. Teachers have witnessed the evolution of the implementation of the new models: initially, observing the rejection of some teachers to adopt the new technologies, for not believing the educational potential of the methodology, which was aggravated by the precariousness student access to ICTs and the internet; until today, in which these barriers have been overcome and it seems to have been understood that with this system not only costs can be reduced, but also the offer of careers can be expanded and, consequently, the number of students increased.

At the beginning of 2000, when distance and hybrid education started, we had a student without internet access. Today, the current generation is immersed in technology and if it has difficulty it enters Google, YouTube, uses a new program and learns quickly. But ten years ago it was much more difficult because almost no one had access to technologies and there was a very large barrier on the side of teachers, who were not digital natives and suffered from barriers to the use of distance learning, which ended up facing the own institution, in heated and endless discussions (*Interviewee N° 4*).

b) The hybrid learning spaces: For the teachers interviewed, how the blended model was built is complete, because it offers the student the possibility of having a face-to-face moment in class and another, mediated by technology at home and still leaves the possibility to collaborate with the group. The

mediated part serves as a complement to classroom learning. There is also the ease of the flexible format, in which the college can decide both face-to-face and virtual proportions. An advantage of this is that students can review the materials as many times as they need and have contact with the teacher in the classroom and with the tutor at home through forum/chat.

Students consider it an opportunity to study and they like it mainly because of the face-to-face interactions. Many students have told me that they have already tried other options, such as videoconferences and that they did not like it. That contact with the teacher and colleges, even once a week, is what keeps the student active in the course (*Interviewee N° 6*).

c) The flexibility of the programs: Flexibility is one of the strengths of the distance and blended models, which in many cases end up inducing students to enroll. Today's student has a family, works, wants to be educated and needs to balance the time to study because he knows that his/her career progress depends on it.

It is that flexibility that brings them to the program. It is the strong point, the possibility of not having to leave home to study (*Interviewee N° 5*).

d) The learning objectives: According to the interviewees, the learning objectives are met, since this is a methodology that requires a greater preparation of the disciplines, as part of the integral planning. The student grades of the face-to-face and blended groups are similar because they depend more on the profile of the student than on the methodology itself. Some observations were made here by the interviewees: about the level of students' dropout, greater than in purely face-to-face groups, the possibility of identity fraud and the complexity of the evaluation system.

The learning objectives are met, due to the fact that it is a modality that requires a rigorous and well-anticipated preparation (*Interviewee N° 1*).

e) The formulation of curricula: In most institutions, there is a multidisciplinary core team, in charge of the planning and course development, which in addition to the content, is responsible for the pedagogical plans. In other institutions, the teacher follows the guidelines to create the curriculum and the class plan, following his idea of the course and creating ad-hoc materials, being able to be invited to prepare books, handouts, and materials for the discipline. There is a third scenario, in which there is a designer for each course that delivers the materials to the teacher of the course, who has the autonomy to choose both the materials and the way to use them.

The teacher decides how he will use the materials he receives... The discipline brings the basics of what he is dealing with. Enchantment, innovation in the teaching-learning process, that is entirely in charge of the trainer, who 'colors' the learning process in the debate rooms, if he wants to use a handout, he can use it (*Interviewee N° 5*).

f) The expectations of educational institutions about hybrid models: The institutions are committed to integrate resources and take advantage of their multidisciplinary to include technology and improve the quality of teaching and learning. In other institutions, the cost reduction approach allows, through technology, to replace classroom hours, producing cost savings to increase profitability. The progress of the distance and blended programs has also been a consequence of the fact that many teachers, initially resistant to the use of ICTs in education, have been incorporating skills to work in hybrid environments.

The institution saw the possibility of having more students. With the law that allows blended education, the reach of a larger audience has increased and the profit is much greater (*Interviewee N° 6*).

g) Factors that encourage the success of the blended methodology: Certain factors play a central role in the success of this methodology: on the students' side, many aspects are relevant to their profile, their

commitment, their ability to work alone, with discipline, perseverance and their ability to share knowledge with your group, to create collective intelligence. On the teacher's side, he/she has to be trained periodically, to have adequate content and a consistent platform, in a flexible format. Emphasis is placed on the need to create realistic expectations in the students so that they can plan the hours of dedication, learn the tools, follow up on the proposed activities and understand their relationship with the educational proposal.

For the program to succeed, I think that students have to be well instructed in the tools they will use and in their relationship with the face-to-face part (*Interviewee N° 1*).

BL Materials and technologies

a) BL materials: Most of the research institutions have interactive whiteboards, multimedia projectors, and Wi-Fi. Students are allowed to use smartphones in class. Some commonly used platforms are Moodle, AVA (virtual learning environment), the D2L system that allows teachers and students to upload materials and work, being able to record videos and organize debates, sharing information through these platforms and stimulating personalized feedback.

The platform we use allows us to work with smartphones so that both teachers and students record videos. Thus, the teacher can create discussion rooms to interact with the students about the videos posted, without writing. For example, you can enter a cultural hall and watch a fragment of a movie, enter a theater or see a work of art and the teacher can stimulate the debate, linking it with what is being treated in class (*Interviewee N° 5*).

b) Challenges in technology: Limitations of the technological infrastructure of the institutions, due to a shortage of economic resources for this type of investment, mean that some universities do not have the latest technology, and the use of the printed book persists. The economic difficulties of students accessing and adopting technology can contribute to school abandonment.

The challenges regarding the IT structure are obvious, we have big limitations, because of the high costs, it is really expensive. Currently, we cannot implement the new version of Moodle, because we don't have computers available for it. Another aspect is the limitations of access to Wi-Fi, which is a reason for a great claim. We need more investment and there are no resources (*Interviewee N° 3*).

c) Relationship between teacher and technology: From the perspective of the interviewees, the teacher who was not born in the peak of the technological age of knowledge, will initially feel the impact and suffer from acclimatization. The adaptation depends directly on the idiosyncrasy of the teacher. If he is curious and proactive, he will adopt all the technology at his disposal, especially if he hears it from his students. The teacher needs to be attentive to new technologies, accept them and incorporate them naturally into his teaching style, highlighting that the relationship can be very fluid because currently, the platforms are quite friendly.

I consider myself a teenager in relation to technologies. I am very curious, and I am always attentive. I am an "early adopter", so whatever new technology I find I already create my login and password, even without knowing what will happen afterward (*Interviewee N° 4*).

d) Other technologies used by students: In addition to the virtual environment, which provides many tools for learning and interaction with/between students, students have videos produced by their teachers, complementary texts, links for consulting chats, discussion forums, web radio, etc. They also use the best-known social networks like WhatsApp®, Facebook®, LinkedIn®, and Snapchat®.

The virtual learning environment itself offers the student "n" tools, videos of the teachers, extra materials and even the traditional "video-lessons", in which the teachers develop a study guide, which has a basic text, indications of readings, complementary texts, a link to the chat with

previously stipulated hours, the web radio link, which is another meeting point between teacher and student. The teacher will be actively talking, explaining, reviewing and students can have the possibility to participate in real-time, each person in his/her neighborhood (*Interviewee N° 1*).

The role of the teacher in the context of blended education

a) Profile of the blended teacher: The profile of the BL professor of Management indicates a teacher with a Ph.D. in Management and/or Accounting, with experience in traditional and distance education, dedicated and with knowledge of multiple disciplines including from different thematic families, also with knowledge of research methodology. There is no rule for the quantity and quality of their education and training to practice in distance, as there is a disparity in the requirement of the various institutions, as will be seen in topic “c) Distance and BL training”.

b) Benefits and challenges of the blended modality: Among the benefits, there is the possibility of breaking down barriers of time and space, complementing face-to-face studies, interacting and sharing with teachers and colleagues. Also, the possibility of democratizing teaching, because, in the classroom, the shyest students can go unnoticed by the teacher, as long as in the BL approach there is total visibility. Another facet of this democratization consists in the extension of the educational offer for students who cannot afford the face-to-face modality.

Another advantage is the possibility of generating greater commitment with teachers and students. Among the limitations, the application of the modality without the necessary rigor and professionalism, the general administration of content, as the disciplines are used in various careers. Another challenge is the adequate physical structure (hardware), the need to legitimize the approach so that it is better understood institutionally and its alignment with global educational strategies. Regarding teachers, a challenge is the investment in improving the quality of teachers, as the platforms are becoming more powerful and versatile.

Among the logical and obvious benefits is the flexibility of activity schedules (asynchronism), the possibility of having classes in any place that has access to the Internet and contributing to the class, since working with the material requires more dedication. In addition, teaching is democratized, because you can reach regions where there would be no normal access to the courses, you can have a better view of the students who are with you, because there is no blind spot (*Interviewee N° 4*).

c) Role of the teacher in the context of BL: The role of the teacher regardless of the approach has evolved, from being a simple transmitter of content to transforming the student, whose final purpose is to stimulate their autonomy and responsibility in the construction of their knowledge. Distinguishing the change of roles in the classroom and blended modalities, the interviewees believe that in face-to-face teaching, the teacher has the possibility of handling the circumstances, having some flexibility. This condition is different in distance and hybrid approaches, where everything has been planned according to pedagogical objectives, so the teachers have to be much more prepared to work with ICTs without losing sight of their role as a motivator for students, considering that any problem in teaching can cause demotivation and abandonment of courses.

Yes, I truly felt the change of roles. The knowledge is the same, but the way of transmitting it is totally different, the attitude, the way of working. For example, in distance and BL classes, the time has to be rigorously fulfilled and you have to have a whole preparation for that... in person, you can adjust according to the circumstances (*Interviewee N° 1*).

d) Perception of teachers of the blended learning modality: The perception is positive, for multiple reasons: interaction with students, tools, the use of technology. It is recognized that it is a challenging modality because it requires both institutions, teachers, and students.

It is a very challenging modality, which demands great commitment from teachers and students. I highlight the need for dialogue in the preparation of materials and in the conduction of the face-to-face and distance meetings (*Interviewee N° 3*).

e) Distance and BL training: The professors interviewed suggest that they had a heterogeneous training, in some cases, proposed by the institution and in others funded by themselves. The responses varied, from 120 hours of training at the beginning of the program, including periodic reinforcement classrooms to those who had no formal training, and the teachers that had to act on their own to meet their needs for training. Concerning periodical training, this in some cases, consisted of coordination meetings, also having as participants, teachers from other disciplines and specialties, for sharing feedback and news.

They told me, the course is this, the content is that, let's see if you are going to work in that activity. So, it was something that happened, more because of my own determination to learn and eagerness to transmit. For me, the question of training depends a lot on each institution, although in my case it did not happen (*Interviewee N° 2*).

The role of the student in the perspective of their teachers

a) Student profile: In general, the profile of the student of this modality is more autonomous, focused, organized, committed and perseverant. There are several groups: the first, of adults, aged between 27 to 40, who work and want to improve their skills and opportunities in the market. They look for master's degrees. The second group, aged over 40, had no opportunity to study at the university and enrolled because, despite being employed, they are afraid of losing their jobs. And a third growing group of young people, mainly women, under the age of 23, whose motivation is to get the first job and conquer promotions quickly. They are attracted to the use of technology, they have electronic devices and the Internet, both at home and abroad, they are people who live near the colleges.

The student's personal profile is more autonomous, focused, focused, organized and persevering. Open to the challenge (*Interviewee N° 3*).

In my university, many people look for masters, at ages 27 to 40, who already work in large corporations (*Interviewee N° 5*).

Another group that has been working for quite some time and did not have the opportunity to study at the university and ends up returning, not to lose their jobs (*Interviewee N° 6*).

b) Teachers' perception of student achievement in the BL context: Teachers perceive the students' achievement as positive because of the power of attraction exerted by technology on youth. It is important to note that students' attitudes depend on the expectation that the institution forms in them and the experience that the students have in that context. For those who have not had negative experiences, flexibility and the ability to interact with other students can be beneficial, to the extent that many seek similar new experiences. However, there is always a group of resistant people who do not participate and who end up giving up. The BL modality is mainly aimed at those who come from the face-to-face world and overcome the initial resistance, here the degree of accreditation is important. In Brazil, both distance and BL diplomas were standardized to the face-to-face approach.

With students who had no negative experiences, I don't see any restrictions, it's all easy. It is much easier to teach BL courses because they (the students) see the possibility of interacting at the end of the week, it is very simple (*Interviewee N° 4*).

c) Cohesion of the groups: The BL methodology itself encourages group-tasks such as case studies, assignments, intergroup discussions, which facilitates group cohesion. In younger groups, participation is more natural, because they are "digital natives", who have more access to information and the habit of sharing their experiences through social networks. Well-trained teachers can stimulate contact with students through scheduled activities, capitalizing on debates and discussions. In older age groups or

more infrequent face-to-face meetings, cohesion takes a while to happen, although the activities of the modality naturally integrate them, if not in person, at least virtually.

The modality itself encourages them because there are not only individual tasks, but also group activities such as case studies, group materials development and debates (*Interviewee N° 1*).

d) Student commitment: Teachers find the essential commitment for continuity and satisfactory completion of BL courses, even more, necessary than in the face-to-face modality. BL requires a big number of tasks and activities, both individual and group and the student who lags consistently ends up giving up because they are self-managed processes, they do not resist a person without commitment or discipline. For this, the blended course must have the ability to conquer the students' commitment.

In the beginning, in the first months, there is greater evasion, mainly in students who have a different perspective of the program, thinking that since it is BL it will be easier. Those (students) who spend 3, 4 months and have completed some tasks well and take advantage of their teachers and tutors, BL increases their commitment to successfully complete the courses (*Interviewee N° 1*).

Discussion

In a context in which the virtualization of higher education is a global and irreversible trend, the evolution of education towards hybrid models, which combine face-to-face and online moments, offers great possibilities and challenges for institutions, teachers, students, technologies and for the educational modality itself. BL complements both face-to-face and purely distance models, valuing personal interactions and altering school dynamics, time organization, and relationships among teachers, learners, and technology (Horn et al., 2015; Valente, 2014; Whiteside et al., 2009).

On the teaching side, teachers must adapt to the new technological paradigm and recognize the change of roles, from content transmitters to apprentice transformers, stimulating autonomy and promoting social engagement and interaction. The teacher's new role is to facilitate and help students to develop the competencies required by the courses (Domínguez et al., 2010; Verschoore, 2019). Pallisé et al. (2018) emphasize that the change of teachers' roles implies an increase in the teaching workload, with limitations in technological and methodological skills, especially in the elder teaching staff.

The complexity of the hybrid models requires the teacher to be trained periodically and consistently to incorporate the new ICTs naturally into their teaching routine. The contemporary technological revolution encourages educators to develop the necessary skills to integrate and teach content with the help of technology (Mayedwa et al., 2016). It should be noted that the teacher also has the responsibility of following up on the quality of the delivery of the courses because a problem at any stage of the teaching can result in the resignation of the course by the student. This is especially problematic in the Brazilian context, where higher education is increasingly oriented to market practices and focused on productivism and profitability, associated with precarious working conditions and unattractive salaries for teachers (Ferreira, 2010; Santos, 2012).

On the student side, the flexibility of the programs and the ability to collaborate with the groups require a more autonomous, proactive, more committed profile, capable of working alone, with discipline, perseverance, with the willingness to share knowledge (Boelens et al., 2018). Butz and Stupnisky (2016) argue that there is a direct relationship among the format of teaching, the motivational profile of students and the fulfillment of educational objectives.

The online and hybrid modalities require many self-controlled tasks and activities, both individual and group and the student who does not follow the required pace may end up giving up. Kurubacak (2006) posits that hybrid models involve a reinforced structure and a critical curriculum to build more interactive and productive classes. Parreira et al. (2013) highlight the importance of careful planning and a detailed

schedule of the face-to-face and distance moments. Yet, Teixeira (2016) argues that the profile of students in Brazilian BL is heterogeneous: while some students choose BL by personal preference, a large majority choose BL because they work or live in areas remote from higher education institutions. This demands the adoption of pedagogical practices that contemplate the particularities of the students' socioeconomic conditions and encourage their protagonism in the BL environment.

For the new “digital native” generations, the use of technological platforms and tools tends to be increasingly natural over time, facilitating the incorporation of new ICTs. The use of these in education is encouraging the apprentices to adopt the contents differently, allowing greater participation in activities and scheduled tasks. ICTs also allow greater participation of learners using virtual platforms, chats and digital forums (Mayedwa et al., 2016).

Higher education institutions must focus on a greater institutionalization of BL, assuming the required investment commitment, knowing that it can be a long-term profitable path, but that requires a meticulous planning, multidisciplinary teams, specialized content, robust technology platform and quality teachers (Graham et al., 2013). Kim (2007) suggests that any methodology that intends to create BL programs must define the scope of the general objectives of the program, analyze the relevant issues, identify the problems and measure the results. Graham et al. (2013) recommend that the implementation of BL must contemplate an adequate physical and technological structure, with technological platforms.

Our results indicate an important difference in the development of the hybrid educational proposals of the various universities. For the teachers interviewed, the institutions' level of commitment to these modalities is perceived, in investments in technological infrastructure, in the training of teachers and in the development of educational content and materials.

The standardization of all types of higher education diplomas in Brazil, regardless of the modality, tilts the balance towards models with better cost control, which are more profitable and sustainable in the long term. Picus (2017) emphasizes that the costs per student in distance and BL infrastructures are substantially lower than in traditional models. These costs include personnel, content development, support services, and technology.

Hybrid modalities offer great benefits, such as flexibility, convenience, quantity and quality of content, knowledge sharing with teachers and apprentices. It is also an instrument for the democratization of education, inclusion, and participation. But they also have some challenges, which include the lack of periodic training of teachers, barriers to the acceptance of technology, the application of the modality without the necessary planning and rigor, the vagueness of the contents, generalist trend, among others. Another challenge is the need to legitimize the modality so that it is better understood inside the institution, with its alignment with the global educational strategies becoming visible.

Our results concur with the work of Otrell-Cass et al. (2014), BL leverages the strengths of online and face-to-face environments, promoting collaboration, interaction, and communication, understanding of concepts, improvement of analytical skills and group integration. Among the disadvantages, Gunathunga and Hewagamage (2015) mention the problems of accessibility and Internet connectivity, increased workload of teachers and the lack of acceptance of some methodologies and ICTs.

ICTs focused on education must take into account the difficulties of adoption to both teachers and students, the technological precariousness of institutions, mainly in developing countries such as Brazil, where there is still difficulty in obtaining reliable Internet connections, preventing modalities more synchronous (Wright, 2017), where the use of the physical book and purely face-to-face modalities persist. These difficulties can also discourage apprentices, increasing the risk of college dropout.

Final considerations

This study aimed to analyze the BL approach of the Management career, evidencing the challenges and pointing out the changing role of both teachers and students, in the perspective of university professors with experience in traditional, distance and hybrid education, who exercise the teaching in seven educational institutions in southern Brazil. For this purpose and based on the bibliographic survey, an analysis model was constructed, considering institutional, material, technological factors and those related to teachers and students in hybrid contexts.

Our results indicate that BL offers great possibilities and challenges for institutions, teachers, students, educational technologies and the educational approach itself. In Brazil, the standardization of higher education diplomas of the various modalities points to the growth of the most efficient and profitable educational models in the long term, such as hybrids, in terms of campus use, infrastructure, operational costs, labor, curricula development, and technological platforms.

The role of teachers and students, protagonists of higher education, is changing over time. Better trained teachers, open to new ICTs, are expected to transform learners. On the student side, more motivated, autonomous, disciplined and committed learners with their progress are expected.

Our results also reinforce the need for institutions to create realistic expectations in students so that they can plan the hours of dedication to learn the tools and carry out the programmed activities and understand their relationship with the educational proposal, to avoid college evasion. Also, to strengthen the need of institutions to create efficient hybrid teaching experiences, generating lasting positive attitudes in students, to promote the development of the approach.

Theoretical contributions

This study offers three contributions to the literature. First, it advances on the debate about the importance of BL as an innovative and alternative modality to the traditional teaching and learning approaches. Notably, the literature in BL is fragmented, where prior studies have mainly focused on the students' experiences in BL environments in terms of engagement (e.g. Kong & Song, 2015; Wright, 2017), performance (Broadbent, 2017; Stockwell et al., 2015) and satisfaction (e.g. Chen & Yao, 2016; Diep et al., 2017). Therefore, our study offers empirical evidence on the main challenges of BL from the teachers' perspective, filling a request from Halverson et al. (2012). Moreover, our study emphasizes the importance of teachers' roles in the teaching-learning process and their responsibility in incorporating appropriate pedagogical practices to meet new challenges imposed by BL.

Second, this study complements prior empirical research by highlighting the institutional support as a key factor in encouraging teachers to adopt BL as a promising modality in higher education. Previous research suggests that universities need to provide both technical and pedagogical support mechanisms for teachers (Graham, Woodfield & Harrison, 2013; Porter et al., 2016). Yet, the institutionalization of BL must occur in a systematic but flexible way, where universities need to adjust their expectations according to the ability of teachers in developing the skills necessary for introducing BL (Kurubacak, 2006). In this vein, our findings corroborate with previous studies, providing evidence on how teachers often need to seek external training to suit the requirements of universities. Besides, technical and pedagogical skills in BL have become a competitive differential for the teaching career, since universities have often sought to hire teachers with experience and knowledge in BL. Therefore, teachers increasingly need to be proactive and constantly seeking knowledge about new methods, technologies, and tools applicable to the BL modality.

Third, the findings advance prior research on the multiple technologies and platforms employed in BL. Previous studies have shown that universities often invest in the development of advanced virtual systems to incorporate BL in the courses (Basaza, Milman & Wright, 2010; Sharma, 2011). However, advanced

systems can be complex, and their development and implementation can incur high financial costs for universities. Furthermore, these systems are often difficult to operate and can discourage use by teachers and students (Rovai & Downey, 2010). Therefore, a viable and less expensive alternative may be the use of digital platforms popular among students to share content such as videos, complementary texts, or even to establish discussion forums and chats. These findings are in line with Klimova and Poulouva (2015) and Harris and Rea (2019), who previously highlighted the benefits of using social networks as an innovative tool to involve students in a dynamic, interactive and productive way in the process of knowledge creation.

Limitations and future research

This study has some limitations, such as the selection of the interviewees, which was purposive and the impossibility of generalizing the results, since it is a qualitative investigation (Creswell & Clark, 2015). Another limitation lies in the focus on the teachers' perspective, lacking knowledge of the students' opinions as well as the perspectives of the universities' managers.

To fully capture the challenges of BL modality, additional research is needed. Avenues for future research lead us to student evaluation systems making a comparison of approaches and methodologies, with emphasis on career mentoring and dissertations and thesis supervision, a prerequisite required in most countries. Further studies could also attempt to investigate the particularities of the interactions between teachers and students in BL environments, comparing with the pure interactions in fully physical and fully virtual environments. Moreover, further studies could investigate the co-creation of knowledge in BL modality, by exploring whether teachers and learners cooperate for developing new content or improving current content for lectures in general. Additionally, further studies are encouraged to investigate how BL may require teachers to play innovative and entrepreneurial roles in finding new and alternative ways on how to adapt traditional lectures to the BL modality, emphasizing the particularities of the Brazilian context.

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