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Moving on to a 'new normal': Teacher educators' concerns about blended learning in the post-COVID-19 Era

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Abstract

This research delves into the apprehensions of teacher educators (referred to as TEs) concerning Blended Learning (hereafter BL) in higher education during pedagogical evolution, particularly in the post-COVID-19 era. Qualitative analysis of open-ended questionnaires and focus group interviews revealed insights into TEs' concerns. The primary findings illuminate four contexts of concern: discipline, pedagogical methods, socio-emotional aspects, and curricular considerations. The TEs voiced concerns regarding disciplinary positioning, apprehensions about potential compromises to professional autonomy if flexibility and diversity principles are not upheld, comfort in engaging with the emotional facets of their students within the digital environment, and a desire to explore unfamiliar terrains, highlighting the significance of the curricular component to their professional identity.

Keywords: Blended learning, Teacher Educators, Concerns, Pedagogical change.

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INTRODUCTION

The body of literature addressing education post-COVID-19 has seen a surge. Teacher training institutions grapple with the challenge of preserving knowledge about blended learning and instructional processes and, more specifically, how to integrate the positive changes in effective teaching into new teaching routines (Pelletier et al., 2022; Wojcikiewicz & Darling-Hammond, 2020). Others explore the pandemic's influences on teachers' professional identity and development (Kim & Asbury, 2020; Wiljan Hendrikx, 2020). Concepts such as digital literacy, collaborative learning, social and emotional learning (SEL), and fostering independent learners are revisited (Cahapay, 2020; Ellis et al., 2020; Zhao & Watterston, 2021).

While this study offers a case study from a college of education, it is important to emphasize its broader implications for teacher education institutions globally. Since the pandemic, this college's faculty and administrative staff have gathered each summer to deliberate on preparing for ongoing changes effectively. This has led to developing a new timetable based on BL to address the emerging challenges. Pre-COVID-19, the college's timetable mainly consisted of two twelve-week semesters with three to four on-campus learning days. Most academic courses were traditionally face-to-face (F2F) with some asynchronous components. However, post-COVID-19, a '1 of 4' timetable was introduced, incorporating remote instruction every fourth week. This shift represents a significant rethinking of traditional teaching models.

While the case study of this college provides valuable insights into the local implementation of BL, the study also speaks to broader issues concerning how teacher educators (TEs) in various countries can navigate and adapt to BL models. The principles guiding this college's new BL strategy—such as autonomy for TEs, fostering creativity and flexibility, and utilizing advanced digital tools—are universally applicable and reflect teacher education institutions' worldwide challenges. These discussions align with global efforts to rethink teacher education in the post-pandemic era.

A previous study was conducted to gauge the satisfaction levels of both TEs and student teachers (STs) from the initial implementation of this new BL timetable (Biberman et.al, 2023). While both groups reported high levels of satisfaction, concerns were raised about the persistence of traditional pedagogies, which positioned TEs as knowledge disseminators and STs as passive recipients. Additionally, TEs voiced concerns regarding integrating BL into the new timetable, reflecting the ongoing tension between traditional and innovative teaching methods.

The concerns of TEs provide a valuable lens for understanding the evolution of teacher professional identity during times of significant pedagogical change. In this study, we use the framework of teachers' concerns to examine successes and challenges as TEs transition to a 'new normal' in teacher education, specifically within the context of BL. This research highlights broader implications for teacher education institutions as they navigate similar paradigm shifts in response to post-pandemic challenges.

LITERATURE REVIEW

Blended Learning in Higher Education and Teacher Education
Blended learning encapsulates a specific educational learning model and a strategy for developing Information and Communication Technology (ICT) learning resources tailored to classroom settings (Colreavy-Donelly et al., 2022). An effective blended learning environment seamlessly integrates face-to-face interactions in the classroom with online synchronous dialogues or asynchronous forum discussions and assignments, enabling students to actively participate in molding their learning experiences (Montgomery et al., 2019). Therefore, blended learning transcends mere augmenting face-to-face learning activities with online components or integrating online tools into face-to-face teaching approaches.

In this study, we adopt Garrison and Vaughans' (2008) definition, which underscores the instructional process as "the organic integration of thoughtfully selected and complementary face-to-face and online approaches and technologies" (p. 148). The term "organic integration" emphasizes face-to-face and online components' inseparable and interwoven nature. The term "thoughtfully" underscores the planning phase's critical significance in fostering a synergistic effect between online and face-to-face components. Merely focusing on the merits of face-to-face or online components in isolation does not fully harness blended learning's potential to actively

engage students and empower them to shape their own learning processes (Boelens et al., 2017; Brown, 2016; Calderón et al., 2020; Chan, 2019).

Despite blended learning occupying a central role in the evolution of learning and instruction in higher education, its implementation falls short of its potential when academia endeavors to enhance relevance and appeal through distance education. A meta-analysis of 23 empirical studies examining blended learning in teacher preparation programs (Keengwe & Kang, 2012) revealed that blended learning was often implemented as a "new traditional model" (Ross & Gage, 2006, p. 168), wherein traditional learning occurred within virtual settings. This paradigm posed fresh challenges for lecturers and students (Brown, 2016). Covid-19 even makes it harder. Students were required to develop self-regulatory competencies, while teachers needed to adeptly utilize new technologies and make informed decisions about 'where' and 'when' to integrate them into the curriculum to optimize student engagement and create synergy between the two learning spaces—online and face-to-face (Pelletier et al., 2022). Furthermore, it will be more difficult for low-income students to access higher education due to the low budget for technology and potential staff reductions to address budget deficits alongside existing workforce challenges. this could lead to the paradoxical situation of simultaneously facing educator shortages and layoffs (Wojcikiewicz & Darling-Hammond, 2020).

The pedagogical thoughtfulness of this integration is critical for success, and lecturers are tasked with upholding high standards in teaching and learning (Rasheed et al., 2020). Consequently, lecturers harbor concerns regarding the time demands for course design, technological literacy deficits, facilitation of the student learning process, social-emotional learning, and fostering a conducive learning climate (Broadbent, 2017; Rasheed, Kamsin, and Abdullah, 2020).

Teacher Educators' concerns in implementing pedagogical changes

Introducing changes into educational systems is a complex endeavor that can provoke objections and concerns, especially when it entails pedagogical shifts, such as implementing blended learning. Studies addressing the implementation of pedagogical changes among teachers and faculty members (TEs), particularly in online teaching, reveal a high level of concerns, primarily related to (1) TEs' ability to implement the change due to discomfort with technology use (Casey & Rakes, 2002; Liu & Huang, 2005; Burke et al., 2018) and time commitments (Simpson, 2010; Zhou & Xu, 2007); (2) TEs' challenges in addressing the varied needs of their students (Liu & Huang, 2005; Casey & Rakes, 2002; Meister & Melnick, 2008). TEs' affective understanding, encompassing feelings, reactions, emotions, and attitudes in response to innovative changes, has also been assessed by exploring comments made by adopters throughout the implementation process (Hord & Roussin, 2013; Borthwick & Pierson, 2004).

The extant literature predominantly emphasizes concerns related to the emotional dimension of teachers' responses to changes, ranging from anxiety and insecurity to acceptance and coping, with a minor focus on the content realms of instructional change that constitute the core of teaching as a professional identity (Jonker, März, & Voogt, 2018; Cutri & Whiting, 2018). This study seeks to leverage this conceptual framework while delving deeper and expanding it, emphasizing the professional context of meaning from which these concerns originate. Accordingly, the research questions are: (i) What concerns manifest during the assimilation of blended learning? (ii) What insights can be gleaned about the professional identity of Teacher Educators in this context?

The Context of the Study

Before the COVID-19 pandemic, the college's timetable was structured around two semesters, each comprising approximately twelve meetings for each academic course. Pre-service teachers attended classes for three to four days a week (depending on their training program) each semester. Most academic courses were conducted in face-to-face on-campus classes, constituting approximately one-third of the entire course load. The 1 of 4 blended learning timetable entailed that all on-campus courses were taught remotely every third week in each semester. Thus, Teacher Educators and students attended three weeks of face-to-face classes, followed by a fourth class conducted remotely, synchronously or asynchronously. The college rector instructed Teacher Educators to redesign their syllabi and incorporate distance lessons into their courses. Professional courses were provided to the academic staff to assist in syllabi redesign, though they retained academic autonomy in their pedagogical preferences.

METHOD

Research Design
This study adopts a qualitative-phenomenological paradigm (Creswell, 2016) to illuminate Teacher Educators' (TEs) concerns during a period of pedagogical change. This approach seeks to uncover the meaning individuals ascribe to their experiences, emphasizing the richness of subjective interpretation. Ultimately, it enables us to identify TEs' challenges and the necessary support structures for successful implementation. In this study, a methodological triangulation research design was used. Data triangulation refers to using multiple data sources in the same study for interpretation and validation.

Participants and Procedure
76 academic staff members participated in the study. The gender distribution of participants mirrored the overall gender distribution of the college. We also considered seniority among participants and ensured that various programs represented a diverse population. The mean seniority of TEs was 12 years (S.D. = 8.4). Among the participants, 7% were lecturers in M.Ed. programs, 68% were lecturers in B.Ed. programs and 25% were pedagogy instructors in the practicum field (kindergarten and schools).

Data collection was conducted in two steps: Step 1: Towards the end of the first semester of the academic year 2022, all TEs belonging to the college academic staff were provided an anonymous questionnaire link through a 'Google Form' distributed via email. The survey comprised three sections of closed questions and one section with two open-ended questions: "What are the major pros and cons of the new model?" and "How do you think the model can be improved?". This study analyzed responses to these open questions to understand TEs' challenges, perceptions, and requirements for the subsequent iteration of the timetable design. Step 2: Employing a purposeful sampling strategy, two semi-structured focus group interviews of six TEs each were conducted to systematically explore TEs' distinct experiences with blended learning (BL). Discussions with the focus groups were digitally recorded and subsequently transcribed for analysis. The aim of employing the focus groups was to enhance the reliability and credibility of the findings by collecting and analyzing data from multiple sources. This aimed to deepen understanding regarding the concerns that surfaced from the responses to the open questions in the questionnaire and to uncover suggested actions by lecturers to address these concerns. Next, we activated a thematic analysis (Braun & Clarke, 2006) to analyze the TE's answers to the open-ended questions and the interviews.

Data Analysis
Adopting an interpretive-qualitative approach (Glaser & Strauss, 2017), the data were subject to analytical and holistic content analysis using an inductive approach (Creswell, 2016). To mitigate potential bias, all three researchers discussed the analysis and reached a consensus of 90%. This dual analytical approach enhances the depth and richness of the interpretation, allowing for a nuanced understanding of the perspectives and insights articulated by participants in the study.

The responses to the open-ended questions in the questionnaire and the transcripts of the focus group discussions were analyzed through the lens of teachers' concerns. These concerns were categorized into four main themes, aligning with the focal points of teachers' professional identity: (i) concerns related to discipline (e.g. Maintaining the scope and quality of the subject matter); (ii) pedagogical concerns (e.g. the process in which teachers facilitate learning and guide students through educational content in the face to face or online setting); (iii) socio-emotional concerns (e.g. creating a safe space, defining norms and values, teachers' openness to sharing, as well as exposure of successes and failures without judgment; (iv) curricular concerns (e.g. strategic ability to lead curriculum planning moves).

Validity, Reliability, and Ethical Considerations
All 76 academic staff members completed the survey. To ensure a representative sample of the broader population, we organized two groups, each consisting of six teacher educators (TEs). This group size allowed for meaningful discussion while capturing a range of viewpoints. All six participants in each group were randomly selected, and the gender distribution of participants mirrored that of the college overall. Participants were assured of the confidentiality of all recordings, signed informed consent, and understood the purpose of the study.

FINDINGS

The analysis of findings centered on three central questions, aiming to discern the feelings and concerns of Teacher Educators (TEs) during the change implementation process, identify the subjects of concern (both lecturers and students), and establish the contexts in which concerns emerged. The study organizes the findings into four contexts of meaning: discipline, pedagogy, emotional/ affective, and curricular, exploring 'what', 'who', and 'which' the concerns pertain to.

Disciplinary Concerns

TEs' concerns were referred to in terms of the positioning of the discipline. In particular, some were concerned about aspects of the scope and outputs of the contents taught. Her is a representative example:

> "These weeks [the distance learning weeks] are almost "dead" weeks in terms of progress in the material. One has to acknowledge this, admit it, and probably reduce the scope of courses and lower (further) the level and threshold of requirements."

Other TEs criticized the new timetable, which harmed the sequence organization of the disciplinary contents progress of the course:

> "The benefit of it [the BL] is less in relation to the interruption of the learning sequence and the inability to study material included in the course syllabus seriously;" It forced me to arrange the learning topics and pulled each topic in the wrong way."

Both examples reflect the concerns regarding the difficulties related to the adaptation of the content to the new structure, both in F2F lessons and in distance learning sessions. On the contrary, some of the TEs acknowledged the benefits of the distance learning weeks by finding them suitable for deepening the relationship between theory and practice. For example: "the possibility to apply the theoretical material learned in class, to create practical materials that often also require in-depth repetition of the material learned up to that point."

Surprisingly, only few of the TEs argued that there is a need to rethink or undermine the disciplinary contents taught. There were almost no references to such a need. The perception focused on one direction: the timetable should fit the familiar contents without changes. Changing the organizational structure of the disciplinary content, their scope, and output was mainly perceived as problematic, frustrating, and above all- 'downgrading' the discipline and as a result the academic quality of the teacher preparation. Hence, we recognize the two stages of implementing a change that reflect the key questions of the 'what' and 'who'. The first focuses on the lecturers' fear of changing the discipline's core material, and the second is aimed at learners regarding the academic quality offered to their students.

Pedagogical Concerns

The concerns in the pedagogical field referred to the pedagogical competencies in the new hybrid space and the load it brings due to the need for the acquisition of new means of mediation suitable for distance learning. TEs feared that their professional autonomy would be harmed if the principles of flexibility and diversity were not maintained. Autonomy *is* manifested by the freedom to use *" A combination of a variety of teaching methods and refreshing thinking about the course content*". Diversity was reflected by the choice of the medium and tools used during the online weeks. Synchronous or asynchronous self-learning-based while activating MOOCs, YOUTUBE videos, and podcasts, integrating gamification, or activating quizzes and challenging assignments. Another aspect of diversity was differentiated learning, while BL "allows for adaptation to the needs of each student. Those who need an emotional and academic response on campus get it, and those who can learn independently enjoy distance learning**."** The above perceptions led to major concerns about work overload due to the need to plan the remote weeks creatively:

> "I do not refer at all to the heavy burden it placed on me as a lecturer who adhered completely to the original guidelines and did not have any synchronous learning in Zoom during these weeks but invested in creating other asynchronous learning platforms and computerized exercises and other technological acrobatics ...".

Consequently, there was a need for pre-planning and a set of shared goals among lecturers: " Relevant pre-planning that maintains an integrative, coherent collaboration with an inherent reason and basis for the content being studied, between

different content providers" *or "Examining the possibility of actual collaboration that will advance shared learning goals in the courses."*

As a direct continuation of the concerns regarding the discipline, as described here, the above example indicates milling in the sense of the existing pedagogical ability to implement the change. Besides the conception regarding the "inability to seriously study" the content, there is an honest statement regarding the task-oriented concerns, which implies the low technological capability of the TEs. Since it created pedagogical overload, its consequences are related to the logistic aspects of implementing the change, and there is a need for techno-pedagogy assistance. On the one hand, TEs asked for the "development and maintenance of diverse digital resources" or" Adding practice workshops to staff." Yet. Some of them found it "Difficult to find time to experiment with the workshops the college offers*".* Although professional courses introduced new tools to the academic stuff, they were found less efficient and suitable due to being time-consuming. Instead, a productive suggestion was raised in one of the focus groups:

> *"a support person (techno pedagogue) should enter the classes and show the teachers and the students how to operate the tool. It is okay that the lecturer does not know the tool 100%, but she should know the potential of using the tool."*

Referring to the literature, we can recognize in this pedagogical context that TEs are bothered by their ability to implement the change due to a sense of discomfort in operating on technologies (Casey & Rakes, 2002; Liu & Huang, 2005) and time commitment (Simpson, 2010; Zhou & Xu, 2007).

Socio-emotional Concerns

One of the main aspects of the teacher's professional identity is being an agent of norms and values. This field is more focused on the well-being of the learners. The interesting finding here is that when TEs themselves felt more comfortable in the digital environment, they were free to engage with their students' emotional aspects: "Overall, after learning to control the technological means, I think I was able in most cases to create emotional connection and meaningful learning in distance learning classes. The combination is perfect."

Emotional values are a significant aspect of the teacher as an educator. TEs affective concerns in the case of BL referred to two populations: (i) listening to the students' voice and his/her needs and (ii) getting out of teachers' loneliness and call for collaboration with their peers. The first call focuses on the impact of the change on their learners and specialty workload: "We need to think about task consolidation. The students complain a lot about the heavy workload"; "Creating workgroups, according to relevant fields, to create an accurate, correct and adapted structure for students."; "By coordinating synchronous/asynchronous learning courses to create a reasonable agenda for students*."* Other voices referred to students' engagement in synchronous lessons via Zoom: " Create student engagement in fun and focused questionnaires on the topic in the middle of a Zoom lesson." Unfortunately, some traditional authoritative voices were also heard: " Make explicit information to students about their commitment to be in front of a computer and not with a phone while driving at work, having family fun, etc." Those voices reflect TE's distress when students are not engaging in distance learning.

The second call for staff collaboration arose as a need for sharing thoughts, joint coping with the change, and supporting each other as colleagues: "Lecturers are lonely. They should plan their lessons in collaborations and maybe even teach together (co-teaching)". Moreover, there was also a need for pre-planning and a set of shared goals: *"Relevant pre-planning that maintains an integrative, coherent collaboration with an inherent reason and basis for the content being studied, between different content providers"* or "Examining the possibility of actual collaboration that will advance shared learning goals in the courses." These statements lead us to the last category of concerns which contains all the previous ones, the curricular concerns.

Curricular Concerns

This context of meaning refers to the teacher's strategic ability to lead curriculum planning moves. In the current context here, TEs express concerns that indicate this component's significance in their overall professional identity. The above examples illustrate the need for a holistic redesign of the whole course, integrating all components (face-to-face and remote) considering curriculum planning aspects regarding content prioritization and students' work overload. Some TEs suggested going beyond the known and the familiar, as it came up in the focus groups and in the questionnaires: "[we should] Greatly improve self-learning and connect it to what must be learned face to face (especially field practicum)" or "Transferring learning responsibilities to students in the right dosage, adding flexibility to their schedule". Others suggested "assigning an online day to each class, where we can plan peak

activities" or "Conducting cross-class meetings that study the same topic or similar areas (for example, all lecturers in the X-course who give a joint meeting - enrichment - to all students in this course)." These examples align with curriculum design principles such as coherent content, flexibility, choice, or class setting. It demonstrates thinking about collaboration with colleagues to improve the process, optimize it for the learners, or think about wider contexts of the change. The new goals of the new curriculum are reflected here:

> "Invest planning in a distance teaching model in large classes with many participants; to create a collaborative model of teaching (such as multidisciplinary integration, integration of large events for all students of the program, etc.); Planning and training of teaching staff - guidance for students' self-autonomous learning, and more."

Suggestions for the future, as rose in the focus groups, demonstrate a non-traditional attitude towards BL, mainly the need for planning learning in two spaces (F2F and online) effectively:

> "You need to learn how to teach a hybrid course correctly. Time should be flexible. Face-to-face meetings should also sometimes be for consultations and emotional support. The face-to-face meetings can be shorter, and then I send the students to work remotely, which connects with the week. The remote week should sometimes be dedicated to deepening and thinking about what was learned in the previous weeks in face-to-face meetings."

To effectively plan the transitions between two learning spaces, TEs called for autonomy *"to decide when the class will be face-to-face and when remotely or otherwise."*

DISCUSSION AND CONCLUSION

This study focused on understanding teacher educators' (TEs) concerns and the implications for their professional identity while implementing a blended learning model. The analysis revealed four central content areas of TEs' professional identity, shedding light on their concerns about discipline, pedagogy, socio-emotional aspects, and curriculum planning. These concerns are fundamental to comprehending the dynamics of change in teacher education and provide valuable insights for enhancing professional development.

The findings from this study, which illuminate Teacher Educators' (TEs) concerns during implementing a blended learning model, resonate with and extend the existing literature on pedagogical change. Previous research highlights that TEs often express apprehension regarding their ability to effectively integrate technology into their teaching practices (Casey & Rakes, 2002; Liu & Huang, 2005), a concern that aligns with our findings regarding the pedagogical challenges faced in blended environments. Additionally, the emotional dimensions of these concerns, ranging from anxiety over technology use to the need for autonomy and flexibility, echo the sentiments documented in prior studies (Burke et al., 2018; Cutri & Whiting, 2018). However, our research uniquely emphasizes the significance of content knowledge as a cornerstone of TEs' professional identity, challenging the notion that emotional responses to change are the predominant focus of concern. This perspective is further corroborated by Garrison and Vaughan's (2008) assertion regarding the organic integration of online and face-to-face approaches, underscoring the importance of pedagogical thoughtfulness in navigating this transition.

By situating our findings within this broader discourse, we can contribute to a nuanced understanding of how TEs negotiate their roles and responsibilities amidst the evolving landscape of higher education, particularly in light of the challenges posed by the post-COVID-19 context. The expansion proposed in the present study to the discourse of concerns is a focus on the contexts of the meaning of the concerns, an expansion beyond general statements regarding the change, innovation, or expressed feelings. The focus on the areas of the teachers' professional identity and their unique context (Vanassche & Kelchtermans, 2014) is crucial in order to deeply understand what are the concerns driven. Four central content areas of the teacher's professional identity emerged in this aspect. The first area referred to the teacher's professional identity as a knowledge agent. We found that besides concerns that focus on the teachers' ability to implement the change or concerns that focus on the learners as the object of change, concerns about the discipline as an object of the change are present. Issues related to the teacher's position as a content expert and the world of knowledge were discussed here. It is interesting that the change did not undermine the question of the legitimacy of this or that knowledge and the responsibility of the TEs for the quality of the knowledge. On the contrary, the discipline as an object of change caused concern and reflected the belief that this is an important required content area in teacher education. Adopting Shulman's classic (1986) perspective, it may be concluded that 'content knowledge' is an eminent

component of the TEs' professional identity. Thus, although the pedagogical context was changed, the TEs still held on to the content they were familiar with as an anchor. Another empiric evidence of the centrality of the disciplinary-professional identity was found in a study that examined the way five Israeli TEs who teach introductory to education courses described their way of coping with the 'new normal' that the COVID-19 pandemic brought with it (Biberman-Shalev, et al., 2023). First, when describing the way they cope with the crisis, they used theories and terms from the discipline in which they specialized. Second, most of the lecturers, except for one, did not change the contents and continued adhering to contents presented in the syllabi determined prior to the crisis. The researchers concluded that the TEs may be defined as experts in the disciplinary content in which they have specialized, and thus, their professional identity may be manifested by proficiency in the course content. Hence, changing their course content may be perceived as undermining and threatening the TEs' professional identity.

The second area of the world of concerns is the pedagogical area. The reference here to pedagogy is in the sense of intermediary teaching. This field refined aspects of traditional concepts against innovative concepts, as demonstrated in our previous research (Biberman-Shalev, et al., 2023) and extensively in Burke et al. (2018). Pedagogy is often discussed with technology because it serves as a tool for mediation, enhancing learning, and engaging students. However, our findings shed light on TEs' need for autonomy and flexibility in the context of consideration and justification regarding integrating technological tools in teaching: which, when, and why. Both expressions are related to teacher agency, an inherent subject of concern in times of change (Harris & jones, 2019). It indicates a high level of awareness for their part in professional development.

The third area is related to the teacher's professional identity as an agent of norms and values (Cross, Dunn & Dotson, 2018). In this area, expressions of concern for the learner's and TEs' well-being emerged. Many issues related to emotional and social aspects received prominence here, such as well-being, dealing with work overload and daily stress among students and TEs, establishing new norms for the new learning spaces to recruit learners and create a safe, comfortable, and accountable learning environment. This finding has corresponded with Longs' suggestion (2019) to empower educators through "adult SEL" initiatives. Another critical issue raised in this area was the need for TEs to work collectively and share responsibility (Calvert, 2016). This finding puts collaboration with peers as a significant subject of concern, which stands by itself, not only as a means to optimize the change process for the learners.

The fourth field is the curricular field that sharpens fundamental issues in teaching related to the teacher's strategic thinking in the field, such as what the needs I map in the field of hybrid learning, what my goals in the field, how I organize the environment time and sequence and what will be the nature of assessment. This field even overwhelms the teacher's role as a curricular planner. We believe this is one aspect the model has promoted since TEs started thinking about their courses and how to teach the content. The insight at this end is that it is necessary to expand the range of teaching practices to change some of the content, but the main thing is to change the perception of TEs' role. TEs can't teach the way they used to, transferring knowledge to students; they have to plan their lessons differently, think about the contents and how students will build the new knowledge remotely with optional scaffolding for promoting independent learners and giving clear explanations when needed about the role of their students in BL. TEs who will follow this line will receive a boost of criticism from their students.

In conclusion, the mapping of TEs' concerns regarding the change of the 1:4 model exposes a complex process. It provides valuable insights into the multifaceted concerns of TEs during the transition to blended learning. The implications extend to the heart of teacher professional identity and underscore the need for nuanced and comprehensive approaches to address concerns and promote effective professional development. Emphasizing the integration of technology, well-being, collaborative practices, and strategic curriculum planning can empower TEs to navigate change successfully while preserving their professional identity and enhancing the quality of teacher education.

Future research could explore the long-term impacts of blended learning on teacher effectiveness and student outcomes. This could provide insights into how these methods evolve over time. Furthermore, it might be interesting to investigate disciplinary variations. Specifically, how different subject areas implement blended learning could reveal tailored strategies and challenges specific to various disciplines, enhancing the overall understanding of pedagogical practices. Another research could focus on the effectiveness of professional

development programs in equipping teachers with the necessary skills for blended learning environments. Finally, exploring student experiences and perceptions of blended learning can provide a more holistic view of its effectiveness and areas for improvement.

This study suggests several concrete steps for policymakers or teacher Educators. Policymakers should create comprehensive guidelines that outline best practices for implementing blended learning in higher education, ensuring consistency and quality across educational institutions. In terms of professional development, implementing ongoing training for TEs to enhance their digital literacy and pedagogical skills in blended learning environments is crucial. In the end, establish networks for teachers to share experiences, strategies, and resources related to blended learning, fostering a community of practice that supports innovation. This study has some limitations. The study may have a limited sample size, which could affect the generalizability of the findings to a broader population of educators. The qualitative nature of the research may introduce subjectivity in interpreting responses, potentially leading to bias in the analysis. The study may not account for external factors influencing the implementation of blended learning, such as socioeconomic status or institutional support. The findings may reflect a specific time frame, and the rapidly evolving nature of educational technology means that results may change over time.

Statement of Researchers

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