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Blogging for professional development: a case study of pre-service teachers in an integrative blended-learning course

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The increasing demand for innovative teaching methods in teacher education has led to the development of integrative courses that utilize blended learning and digital tools such as blogs to enrich the preparation of pre-service teachers in special education. This study examines how personal blogging, as part of a blended-learning integrative course, supports the professional development of 61 pre-service special-education teachers. Conducting an online blog was a requirement of an integrative blended-learning course titled “Students with Learning Disabilities.” Through thematic analysis of 268 blog entries, this study reveals a range of benefits of blogging, encompassing cognitive, emotional, and reflective dimensions. Six main themes emerged following this analysis, including: (1) reconstructing and documenting course content; (2) addressing unique teaching practices; (3) reflecting on the unique features of the integrative course; (4) freely expressing significant emotions; (5) deepening the understanding of the teacher’s role; and (6) challenges of blended learning in the context of the integrative course. The blogs served as an effective tool for documenting lessons, processing knowledge, and engaging in critical reflection, while also facilitating emotional expression and professional insights. The findings underscore the blog’s significance as a reflective instrument that bridges face-to-face and online learning environments, supporting the professional growth of pre-service teachers. This research contributes to the growing discourse on innovative teacher training, elucidating both the benefits and challenges of including personal blogs in integrative blended courses. The study’s outcomes offer valuable insights for teacher educators and curriculum designers seeking to enhance pre-service teacher preparation through digital reflective practices.

KEYWORDS

blended learning, blogs, integrative course, pre-service teachers, special education, teacher education

1 Introduction

The growing demand for innovative instruction in teacher training programs has led to the development of specialized courses, tailored to the needs of future learners. Schools and academic institutions find themselves driven to adopting new teaching methods, as a means for navigating and adapting to dynamic and evolving educational landscapes. Indeed, educators who employ traditional pedagogical approaches face increasing

pressure to integrate novel strategies (Kowalczyk-Waleziak, 2024). Innovative teaching is grounded in critical thinking and value-based learning, leveraging diverse practices for enriching educational experiences (Omei and Olewe, 2021). Such approaches are particularly relevant when preparing future educators, providing pre-service teachers with instructional models that they can later apply as they transition into their professional teaching position. Teacher educators therefore play a key role in such processes, exposing these future teachers to educational innovations and guiding them in designing and implementing pedagogies that are adapted to diverse student populations (Avidov-Ungar and Forkosh-Baruch, 2018).

In response to the growing call to integrate progressive and innovative pedagogies into teacher education, the present study examines a unique academic course undertaken by pre-service teachers training to become special education teachers. The course was designed according to the integrative curriculum approach (Kindelan, 2022) and implemented within a blended learning framework (Li and Wang, 2022). Throughout the course, the pre-service teachers were required to reflect on their learning process in personal reflective blogs. Although blogs are increasingly used in teacher education, a significant research gap remains regarding their effectiveness as pedagogical tools for fostering professional development, particularly within integrative and blended learning environments. Therefore, the current study aims, in its initial stage, to investigate whether and how the unique features of the innovative integrative course are reflected in the pre-service teachers' blogs. In the subsequent stage, the study aims to explore how the blogging process itself may contribute to the development of pre-service teachers' professional development. Accordingly, the following research question was articulated: What do the blogs of pre-service teachers trained to become special education teachers reveal about the role of blogs in an integrative blended-learning course?

1.1 Blended learning

Pedagogical innovation is founded on constructivist educational principles, whereby knowledge is most effectively acquired when students actively build on their existing knowledge (Ertmer and Newby, 2013). This innovative approach represents a departure from traditional teaching and instruction, particularly in course design and delivery. One such method is blended learning, which entails both face-to-face and online learning and has gained momentum in recent years, especially following the immediate and unexpected transition to remote learning during the COVID-19 pandemic (Li and Wang, 2022). This approach combines traditional classroom instruction with flexible learning elements, where the students control the timing, pace, and location of their learning. The online component may include synchronous and asynchronous activities, such as reading articles, conducting online research, or attending Zoom sessions (Bizami et al., 2022).

Blended learning has been found to enhance both academic achievements and learner satisfaction, by providing opportunities for active engagement and personalized learning experiences. According to Hrastinski (2019), this method promotes learning

flexibility by offering varied formats for conducting interactions and delivering content, accommodating diverse learning styles and scheduling needs. The combination of asynchronous components, which allow students to review materials at their own pace, and synchronous ones, which facilitate collaboration and immediate feedback, creates a comprehensive learning environment (Garrison and Vaughan, 2008). Among the various online tools that are employed in blended learning, blogs have emerged as a particularly valuable tool that enables reflection and critical thinking, while fostering a sense of community among learners (Deng and Yuen, 2011). This strategic integration of diverse learning modes exemplifies how blended learning can simultaneously foster both academic success and personal development.

1.2 The role of blogs in teacher preparation

A blog is an interactive digital platform that features chronologically arranged entries (i.e., posts) that address experiences, news items, and articles on various topics (Sim and Hew, 2010). These posts tend to encourage reader engagement through comments and trackbacks, creating an online dialog. Blogs can be categorized based on their content and purpose (such as personal diaries), private group forums (such as support groups), personal columns that feature personal interpretations, and community platforms that address social topics of a local or global nature (Biberman-Shalev, 2018).

The past decade has seen an increase in the use of blogs in academia in general and in teacher training in particular. One prominent model is the didactic blog, which has been integrated into numerous teacher-training programs (Deng and Yuen, 2011; Turvey and Hayler, 2017; Yang, 2009). Studies highlight its role in fostering learner engagement, providing a platform for conveying personal expression, facilitating peer learning, cultivating reflective critical thinking, and enhancing writing skills. Sim and Hew (2010) further found that blogs help students deepen their understanding of course topics, organize ideas, consolidate knowledge, develop critical thinking, and generate solutions for a range of issues.

Fisher and Kim (2013) identified two primary ways in which blogs are used in teacher training: the shared blog and the personal one. In the former, participants can post public entries and engage with one another. This approach aligns with social learning theories that emphasize collaboration and interactions between course participants. In the latter, students can document and reflect on their experiences in the school or other academic settings. One key feature of personal blogs is that they are only visible to the course instructor, not to the student's peers. This characteristic aligns with constructivist learning theories, as it supports the development of personal knowledge through reflective practice and experiential learning.

In general, blogs provide a platform for personal expression and for the integration of experiences with course-based theoretical knowledge. Biberman-Shalev (2018) found that pre-service teachers tend to prefer personal blogs over group ones, perceiving the former as a safe space for sharing personal thoughts and emotions. One key advantage of this tool is its flexibility, as teachers empower their students by "relinquishing" control of their

blog while remaining present in the background, ensuring that learners engage in the course content (Fisher and Kim, 2013).

Crucially, blogs possess unique digital affordances that differentiate them from traditional written journals and enhance their pedagogical value. They are inherently multimodal, allowing for the seamless integration of text with hyperlinking and multimedia elements such as images and videos, which can significantly enrich the expression of ideas and insights. While the personal blogs in this study were primarily visible only to the course instructor, the platform inherently supports a potential for interactivity and dialogic engagement through features like comments and trackbacks. This capacity for interaction, even when formal feedback is provided occasionally and randomly as occurred in this study, fosters a sense of addressing a “significant other,” thereby promoting deeper reflection and a unique form of dialogue. Furthermore, blogs facilitate asynchronous communication, providing pre-service teachers with the flexibility to document their impressions and insights and engage with course material at their own pace, fostering continuous reflective practice. This combination of multimodality, inherent interactivity, and asynchronous nature leverages the digital environment to create a flexible and supportive space for in-depth personal and professional reflection, distinguishing it from conventional writing formats.

In addition to their cognitive and pedagogical benefits, blogs also support social-emotional learning skills (SEL), with notable emotional effects. Recognized as a user-friendly technology, blogs provide students with a space for “emotional ventilation” throughout their academic learning, thereby contributing to their overall learning satisfaction. While research indicates that blogs do not replace face-to-face instruction and learning, they offer an environment where students can think, reflect, and experiment (Fageeh, 2011; Pinkman, 2005). As a versatile learning tool, personal blogs can be effectively integrated into a range of academic courses.

Finally, for both pre-service and in-service teachers, blogs serve as a tool for conducting reflective practice; this involves the deliberate and critical analysis of one’s teaching methods and their impact on their students’ learning; in addition to enabling in-depth learning, this tool also allows its users to challenge their underlying assumptions, beliefs, and values (Raber-Hedberg, 2009). Indeed, reflective practice is considered an essential goal for pre-service teachers, novice and experienced teachers, and teacher mentors.

1.3 Integrating blogs into integrative courses

Fundamentally, an integrative curriculum recognizes the inherent interconnectedness of various subjects within the educational framework. According to Wortham (in Kim et al., 2004), curriculum integration is often implemented through the design of thematic units, the exploration of specific topics, or the alignment of developmental and subject-specific areas.

An integrative course, built on an integrative curriculum, combines several basic courses, to create meaningful connections between topics (Kindelan, 2022). Research indicates that such courses enhance student engagement and interest, deepen

knowledge, and foster critical thinking (Karimov et al., 2020). As a result, integrative or interdisciplinary courses have become increasingly common in higher education curricula (Rhoten et al., 2006). Rooks and Winkler (2012) and Clare (2023) have highlighted the advantages of interdisciplinary courses, including unstructured learning that facilitates the transfer of knowledge to the real world, the development of diverse knowledge-based skills for solving various problems, and the promotion of different learning methods – especially collaborative ones. This current study focuses on an integrative course on the topic of LD, where personal blogs are incorporated as a key teaching component.

While blogs have shown significant potential in education, their use as a pedagogical tool in blended-learning environments remains underexplored (Zhang and Li, 2019). Moreover, although the literature discusses blogs in the context of teacher-training course management, such implementation is still in its early stages (Biberman-Shalev, 2018), and studies on their role in integrative courses are greatly lacking. Therefore, a significant research gap exists concerning the comprehensive understanding of blogs as a pedagogical tool within blended-learning environments, particularly in the context of innovative integrative courses and their specific contribution to teacher professional development. To bridge this research gap, the aim of this study is to examine the role of online blogs in an innovative integrative course on LD in special education, exploring how the course’s unique characteristics are reflected in the blog posts of the pre-service teachers. Specifically, this study sought to achieve two main objectives: (1) to identify how the unique characteristics of the integrative course are reflected in the pre-service teachers’ blog posts, and (2) to explore how their personal blogging contributes to their professional development. Accordingly, this study addresses the following research question: What do the posts of special-education pre-service teachers reveal about the role of blogs in an integrative blended-learning course?

2 Methodology

2.1 Research context

This study was conducted within a teacher education program at a teacher training college in Israel, designed for pre-service teachers specializing in special education. It focuses on an innovative integrative course specifically developed to address the complex and multifaceted needs of students in special education settings, particularly those with learning disabilities (LD) such as dyslexia or ADHD. The course aims to prepare pre-service teachers to effectively support and teach students with these challenges. The course is mandatory for first-year pre-service teachers and is typically held during the second semester. It is embedded within a blended learning framework that combines face-to-face sessions with online components, thereby promoting both flexibility and accessibility. At its core, the course addresses the cognitive, emotional, social, and multicultural dimensions associated with LD, aiming to prepare future educators to work effectively with this population. Participants are required to acquire a broad and in-depth understanding across these domains, while also mastering diverse pedagogical strategies and implementing educational accommodations tailored to students with LD.

Notably, the course consolidates topics that were once taught separately, such as learning disabilities, multicultural education, and emotional development, into a single integrative experience. This integration fosters meaningful connections between the topics and encourages students to understand the interrelationships between theory and practice. A distinguishing feature of the course is its collaborative teaching model. Multiple content experts in LD, educational counseling, and multiculturalism co-lead the instruction, contributing varied perspectives and enhancing the depth of engagement. Two of the main lecturers are also the authors of this study, offering firsthand insights into the course design and implementation. Furthermore, the course reimagines traditional classroom structures by incorporating flexible learning spaces, varied group configurations, and adaptable scheduling—thus promoting learner agency and inclusivity.

In alignment with the course's pedagogical goals, participants are required to maintain an ongoing online blog throughout the semester. These blogs function as reflective journals, enabling pre-service teachers to document insights, respond to readings and film viewings, and engage in asynchronous discussions. Within their blogs, the pre-service teachers also connected course content with their broader academic knowledge and experiences, drawing on various articles and videos. While the course lecturers reviewed all blog entries weekly, they provided feedback occasionally and randomly, specifically to avoid influencing the authenticity of the pre-service teachers' reflections and natural thought processes throughout the course. This practice not only supports critical thinking and self-reflection but also encourages the development of collaborative communities-of-practice, an essential element in contemporary teacher education (Wenger, 2002). Blogs have proven to be an effective tool in blended learning contexts, offering a space for dynamic interaction that transcends temporal and spatial limitations (Biberman-Shalev and Chamo, 2025; Kirkwood and Price, 2014; Deng and Yuen, 2011).

The present research, which forms part of a broader long-term investigation, adopts a qualitative paradigm grounded in a phenomenological approach (Creswell and Plano Clark, 2011). This methodology enables the exploration of how individuals interpret and make sense of their learning experiences through natural language, tapping into the researchers' interpretive insights (Creswell, 2014). Specifically, this study investigates the perceptions of pre-service teachers regarding the integration of reflective blogging within a blended learning environment. The aim is to uncover the perceived impact of this practice on participants' learning processes and emerging teaching philosophies (Flick, 2004; Prosser, 2000).

2.2 Participants

The participants consisted of 61 female pre-service teachers who were trained to become special education teachers. These pre-service teachers were freshmen, as they were learning the integrative course titled "*Students with LD*" in the second semester of their first academic year (2018–2019). The average age of these pre-service teachers was 24 years. These pre-service teachers were required to learn on-campus courses, as well as visit a special

education school once a week as their practicum field, where they observe professional teachers and teach students with special needs.

2.3 Research tools

The primary data-collection tool applied in this study was the personal blog that accompanied the online component of the blended-learning course. In their blog, the pre-service teachers were asked to address insights from the ongoing lessons, while responding to specific content that was presented online, such as reading articles or watching videos. A total of 268 posts were analyzed in this study, although more than 500 posts were expected to be achieved – based on the number of course participants and the course duration, given that each of the 61 participants was required to write a weekly personal online blog over the semester (approximately 9–10 posts). This discrepancy occurred because, although participants were required to post weekly, actual compliance varied, leading to an uneven distribution of entries where some pre-service teachers submitted fewer posts, while others exceeded the posting requirements. The blogs were only accessible to the pre-service teacher and to the course lecturers; while the latter reviewed all entries once a week, they only provided feedback occasionally and randomly, to avoid influencing the authenticity of the pre-service teachers' reflections and of their natural thought processes throughout the course.

2.4 Data analysis

The study employed thematic analysis to examine the blog entries, using text segments as units of analysis (Creswell, 2014). Specifically, the coding was based solely on the content of the pre-service teachers blog posts. It is important to note that these blogs were private, accessible only to the pre-service teacher and the course lecturers, and therefore did not include public comments from peers or other users. This approach enables researchers to develop a coding system, while highlighting specific parts of the text. Through this process, relevant words and phrases are grouped into common themes, based on their perceived relationship to the research topic (Tashakkori and Teddlie, 2003). Central themes were identified through the iterative readings of the blog entries, employing a combined inductive (emic) and deductive (etic) thematic analysis approach. Specifically, some evaluation criteria were determined in advance based on existing research findings presented in the literature review section (the etic approach), and others emerged following the repeated readings of the entries (the emic approach) (Creswell, 2014). Based on Creswell (2014), this process of thematic analysis included four stages: (1) the content of all blogs was compiled into a single, continuous Word document; (2) each researcher individually identified central categories from these entries; (3) the researchers convened to discuss the identified categories and reach a consensus on six final research themes; and (4) the researchers re-identified representative quotations of the final themes.

To ensure the validity and credibility of the findings, procedures such as triangulation among authors and iterative

coding discussions were undertaken. However, member checking was not performed due to the anonymized nature of the data and the fact that the analysis took place after the course had concluded and all students had received their final grades.

2.5 Ethical considerations

Several ethical considerations were addressed in this research: (1) to preserve the natural context of the researched phenomenon, data were only collected as part of the teaching-learning process. The pre-service teachers were not asked to perform any additional tasks for the sake of this study; (2) the blogs were analyzed by the course lecturers after the course had concluded and all students had received their final course grade; (3) the research was approved by the ethics committee at the researchers' affiliated academic institution, with an emphasis on maintaining complete anonymity of the participants. As such, all names and initials used in this study are pseudonyms; and (4) pre-service teachers who objected to their blog being used for research purposes were not included in this research (this occurred for one student). Note: As mentioned above, not all 500 blog entries were included in the analysis. In addition to entries being excluded due to students writing significantly more or fewer than required, one student's entries were excluded due to their decision not to participate in the study. Beyond formal ethical procedures, we also reflected critically on the nuances of using personal blogs as research data. It is crucial to acknowledge a potential tension inherent in analyzing data from required assignments: the possibility that blog entries, particularly when serving as a graded course requirement, might have been "performative" rather than purely authentic expressions of thought and emotion. However, the observed depth of reflection and the genuine engagement evident in the analyzed content suggest a significant level of authentic expression and, in some cases, a deep immersion in the writing process, mitigating this concern. Furthermore, we carefully considered the ethical implications of analyzing highly personal content. While all data were anonymized through the use of pseudonyms to protect participant privacy, we also ensured that highly sensitive or extremely personal posts, if identified as such, would have been handled with extreme care or excluded from analysis to safeguard participant wellbeing. Indeed, one pre-service teacher's entries were explicitly excluded from the study due to their decision not to participate. This study also highlights the blog's dual role as both an assignment and an expressive tool. Recognizing this dual function underscores the inherent need for clear boundaries when utilizing such reflective methods in research, balancing the academic requirements with the personal nature of the content.

3 Results

The thematic analysis of the blog posts revealed six central themes: (1) reconstructing and documenting course content; (2) addressing unique teaching practices; (3) reflecting the unique features of the integrative course; (4) freely expressing significant emotions; (5) deepening the understanding of the

teacher's role; and (6) challenges of blended learning on the integrative course.

3.1 Theme 1: the blog as a means for reconstructing and documenting course content

A significant portion of the blog entries focused on the students' documenting and reflecting on what was learned in class. Some entries described the course's progression and activities, while others summarized and elaborated on the material itself. As seen in the following quote, written by TH, the blog functioned as a type of personal notebook, where the key lesson topics were recorded in order, together with descriptions of the lesson itself:

We worked on the various definitions of LD – what it is, how it's characterized... Personally, I wrote down the main points so I can remember them and understand them throughout the course. After exploring the definitions, we each gave our opinion about the different definitions and held an interesting discussion. After the fascinating discussion, we moved on to the jigsaw activity... There was integration between the different topics.

In addition to summarizing the learned material, many blog entries captured the participants' insights following analysis of the studied content, highlighting their active engagement in the learning process via the blog. For example, after the topic of attention deficit hyperactivity disorder (ADHD) and related coping strategies were explored during a face-to-face lesson, CN wrote the following, indicating her related questions and concerns:

I think it's really important and useful to divide the lessons into small units... This raises questions for me: How is it that at a young age, we're able to perform tasks even with noise around us, but as adults, we need silence?... And the biggest question that arises for me as a teacher is: How can I help those students who can't learn in a noisy environment? How do I guide them through the noise to success?

This quote conveys how her blog allowed this participant to express questions that had arisen for her and that were not addressed during the lesson.

In another quote, AT writes: "I didn't explain this in class, but I'll explain it here, my idea behind the picture." These words demonstrate how some students used the blog as a platform for conducting important discussions of the studied materials, while adding their own thoughts and explanations.

In the following quote, the pre-service teacher also addresses the issue of dealing with students with ADHD. She revisits what was said in class and raises her own questions:

I encountered a phenomenon in class where the attention disorder negatively manifests itself in a child with difficulties, or where the teacher does not particularly care for him. But in

the lessons that he was interested in, the ADHD didn't manifest itself as problematic. I wonder how the child could control certain behaviors and emotions and be attentive.

3.2 Theme 2: addressing unique teaching practices on the course

Both explicit and implicit references highlight the innovative teaching practices that form the cornerstone of this integrative course. Beyond merely identifying these practices, the blog provides future teachers with a space for reflecting on the rationale behind their implementation. The following quote by RL illustrates her understanding of the rationale for engaging in discussions during the lesson – namely exposure to a variety of perspectives, as she writes: “I think the discussion was essential and opened the entire class up to a variety of opinions and perspectives... It gave me food for thought, especially on how I can be a better teacher for all students.”

In this theme, the participants also addressed the advantages of experiential learning in a workshop that was conducted during some lessons. They expressed the importance of aligning tasks with the lesson's objectives and tailoring them to students who will become teachers in the future. This can be seen in the following quote by SR, which was written after a workshop that included a number of LD-related simulations:

The lesson was very experiential and well taught. There's nothing like experiencing something firsthand in order to understand the other. This time I really felt like I was standing in the shoes of that [school] student who was in my class... The tasks were diverse and suited the purpose, they were challenging and matched our age.

In this quote, the writer demonstrates her understanding of the rationale for using experiential learning to create empathy and gain the LD student's perspective.

Following are three quotes in which the participants describe a certain teaching practice that was conducted during the lesson; they link this practice to their understanding of the rationale behind it. In the first quote by LO, there is a reference to active vs. passive learning. In the second quote by ES, she mentions the jigsaw practice as a means for promoting deep understanding and teamwork:

Instead of learning material like parrots through a PowerPoint presentation, we were allowed to go outside for half an hour (which also refreshes us during the lesson) and read articles in groups... These activities enabled us to stay focused and be more motivated to learn.

I feel that learning in the jigsaw [activity] was beneficial for me and helped me with certain points that I hadn't understood when I read the article. Thanks to the jigsaw method, I learned new things about teamwork and there were points that I was able to bring up for discussion in the group.

Finally, in the third quote by SR, the writer refers to the advantage of active learning and group work in promoting understanding: “Integrative lessons where we move, operate, and work in groups to acquire knowledge and understanding in an independent and organized manner are more helpful for me.”

In these three quotes, the participants specify why a certain teaching practice suits them, with such factors including enhancing knowledge, sparking an interest, and becoming more motivated and focused.

3.3 Theme 3: reflecting on the unique features of the integrative course

Analysis of the pre-service teachers' blogs revealed their perceptions of the integrative nature of the course. In their reflective writing, the participants explicitly or implicitly address its unique characteristics, which merged several realms of knowledge – including cognitive, social-emotional, and multicultural aspects – into one course on LD. Beyond the interconnected content of the course, the participants also highlight the course's integrative structure, exemplified by the collaboration between lecturers from diverse disciplinary backgrounds. This multidisciplinary approach was widely recognized by the participants as enhancing their understanding of students with LD.

In the following quote, OS describes the integrative approach of the course as novel, engaging, and thought provoking, offering a broader perspective of the concept of LD: “The last lesson was very interesting. In my professional opinion, the integrative perspective of LD opened up a whole new circle. I work with students with LD, but I never thought about their disabilities in such a broad and integrative way.”

Similarly, EP noted how the connections that were fostered throughout the course – between lecturers and fields – provided new perspectives regarding students with LD:

I find the lessons that combine between you fascinating! The discussion and connection between the emotional and cognitive aspects allow me to achieve new perspectives and insights regarding students with LD, a deeper understanding of the problems that he faces and how to act.

In the above quote, the participant emphasizes the benefits of combining both emotional and cognitive aspects, which enhanced her learning. Continuing the discussion on perspectives of students with LD, some pre-service teachers also explicitly refer to connections between the lecturers themselves as being valuable and interesting, as seen in the following quote by DY: “What I liked most about the double lesson was how you chose to end it, in the form of a paired interview. It was different and interesting, and helped us stay focused at 19:30.

3.4 Theme 4: freely expressing significant emotions

Analysis of the blog revealed numerous references to emotional aspects across two dimensions. The first reflects childhood

experiences related to learning and to LD, while the second captures present emotional experiences, expressed from the perspective of the adult pre-service teachers as they engage in the lesson.

In the following quote, MK emphasizes the powerful experience of having been a child with LD:

You see, we always discuss examples in class. But for me, these aren't simply examples or hypothetical cases. They're me and my reality and experiences. Every example brings me to tears, to arguments, to frustration, to the thought that I'm not good enough... It only happens in this course, and it always sends me back to the most difficult moments of my childhood.

This quote captures the intense emotions that this pre-service teacher experienced as a child with LD during in-class lessons, yet notably, it was the integrative course that evoked these emotions – in a way that no other lesson did.

In the following quote, DY, who has ADHD, expresses how she felt that other people can finally understand what her world always looked like in school, thanks to this course. Beyond revisiting past emotions and memories, the blog enabled the pre-service teachers to also address the current emotional thoughts and feelings during or following the lesson. They used words to describe profound feelings, such as frustration, identification, empathy, and self-criticism. In the following quote, for example, CS describes her emotions during a simulation workshop on different LD: “I felt very frustrated with the different stations throughout the workshop... I don't have LD and some of them were very difficult for me, so I can only imagine what students with LD feel [in such situations].”

In addition to writing about their own feelings, some pre-service teachers conveyed a sense of identification with the other, i.e., with students with LD. This is conveyed in the quote above and in the following one by IB: “The film evoked immense feelings and a sense of identification with the students...” and by SV: [The workshop] placed me in the shoes of a student with LD in a mainstream class.” These words indicate that the course content and the teaching methods stirred up past and present emotions, which were expressed through the use of powerful words such as “immense” and “very.” As such, the blog seems to have served as a platform for expressing these emotions.

3.5 Theme 5: deepening the understanding of the teacher's role

Following their participation on this course, some pre-service teachers noted insights regarding the role of the teacher when dealing with students with LD and formulated principles for how they perceive the “ideal teacher.” This was seen, for example, in the following quote by KD: “I understood what kind of teachers I'd like to see in the educational system. I think a teacher needs to look at the student as a whole...” Similar thoughts were also expressed by RT: “For me, the lessons emphasized just how much power teachers have when working with students with special needs – the power to cause lasting harm, or the power to support them and guide them forward despite the challenges.”

Finally, the following quote by DS highlights a key feature of the integrative course, i.e., the integration of multicultural perspectives

in the context of LD: “We mustn't let students with difficulties fail and fall. We need to empower them, to provide them with support and assistance... It's crucial for professionals to understand the cultural background of each child.”

3.6 Theme 6: challenges of blended learning on the integrative course

The sixth and final theme highlights the challenges that were associated with the course's blended-learning approach. While most blog posts reflected on professional development, emotional engagement, and enriching knowledge – generally expressing positive sentiments toward the course and its content – some participants voiced their concerns, difficulties, and critique regarding its structure and multi-contextual learning approach.

As expressed by KL: “The subject of the course, LD, really interests me. But I'm curious to see how this topic will be connected to other courses, which seem very distant from each other.” Similar thoughts were also expressed by RB:

Honestly, the first lesson left me a bit confused. We were introduced to various aspects of LD and their connection to students with LD. There were also many new concepts, some of which I didn't fully understand. We tried to map them out. But I kept wondering how we'll be able to cover everything in just one semester, given the wide range of topics involved.

Moreover, some participants presented a certain critique about the different teaching and learning practices that were applied in the course, as seen in the quote by SL: “Personally, I don't like workshops or discussions. I don't feel that I can gain knowledge and learn effectively this way.” Similar thoughts were expressed by AC:

I must admit that personally, I find it a bit difficult that all the lessons are conducted through stations, group work, and self-directed learning. I understand that we're students, and that we're responsible for our learning, but I truly believe that when it comes to crucial topics like the Response to Intervention model, there's room for traditional frontal teaching, where you sit, write, and listen to the teacher or lecturer. Often, after the lesson, which is at such a difficult and late hour, I leave feeling unsure about what the main takeaway was. At times, I feel a bit lost without frontal teaching to explicitly outline the key points of the lesson.

Finally, LD reflects on the blog as both a tool and an assignment within the course: “I don't write everything here [in the blog] because I don't want it to feel like another tedious and unhelpful task. I understand why it's important, but I'd rather only use it only when I feel the need.”

4 Discussion

The aim of this research was to explore how blog entries of pre-service teachers contribute to their learning in an integrative blended-learning course. Although the study was conducted

in the special education track and focused on students with LD, the findings hold broader significance for teacher training across disciplines. The research particularly demonstrates how combining face-to-face and distance learning can promote student engagement in educational settings, offering valuable insights for modern pedagogical approaches.

The findings suggest that blogs play a significant role in the integrative course design. As shown in [Figure 1](#), blogs facilitate deeper engagement with lesson content, allowing pre-service teachers to share personal insights, while providing a platform for processing and expressing thoughts and emotions. The thematic analysis revealed that personal blogs serve two key interconnected aspects: cognitive development and emotional processing, as seen in the first five themes that emerged:

1. Reconstructing and documenting course content, highlighting the cognitive role of the blog in supporting memory and recall.
2. Addressing unique teaching practices, positioning the blog as a cognitive tool for generating meta-pedagogical knowledge.
3. Reflecting on the unique features of the integrative course, demonstrating the blog's cognitive utility as a reflective practice tool.
4. Freely expressing significant emotions: emphasizing the blog's role in emotional ventilation and processing.
5. Deepening the understanding of the teacher's role, illustrating the blog's function in redefining and clarifying the teacher's role, and combining between the cognitive and emotional aspects.

[Figure 1](#) depicts these findings, emphasizing the blog's central roles: three with a cognitive dimension (Themes 1–3), one with an emotional dimension (Theme 4), and one that bridges the two (Theme 5). The blog serves as a powerful tool for retaining, reviewing, and documenting lesson content, with pre-service teachers leveraging it, to theoretically and interpretively articulate their accounts and reflections of the lesson. This finding aligns with reports from educational literature that has identified personal blogs as a tool for reinforcing memory, through review of the content and engagement with it ([Biberman-Shalev, 2018](#)). As documenting and writing effectively facilitate content retention and implementation, this positions the blog as a key instructional tool. Moreover, the blog provided a foundation for writing insights, formulating hypotheses, and generating further questions related to the course material. In this manner, it plays a pivotal role in processing course content.

The critical reflection of the pre-service teachers on pedagogical practices and on the lesson process (Theme 2) fundamentally engages with meta-pedagogical knowledge. This relatively new concept encompasses the knowledge that educators must address when teaching pre-service teachers ([Field, 2012](#)). Meta-pedagogical knowledge is especially important for pre-service teachers, as it fosters a deeper understanding of the rationale behind various teaching practices, enabling refinement and precision of their instructional approaches ([Fono and Zohar, 2024](#)). [Biberman-Shalev \(2020\)](#) found that teacher educators may use the blog

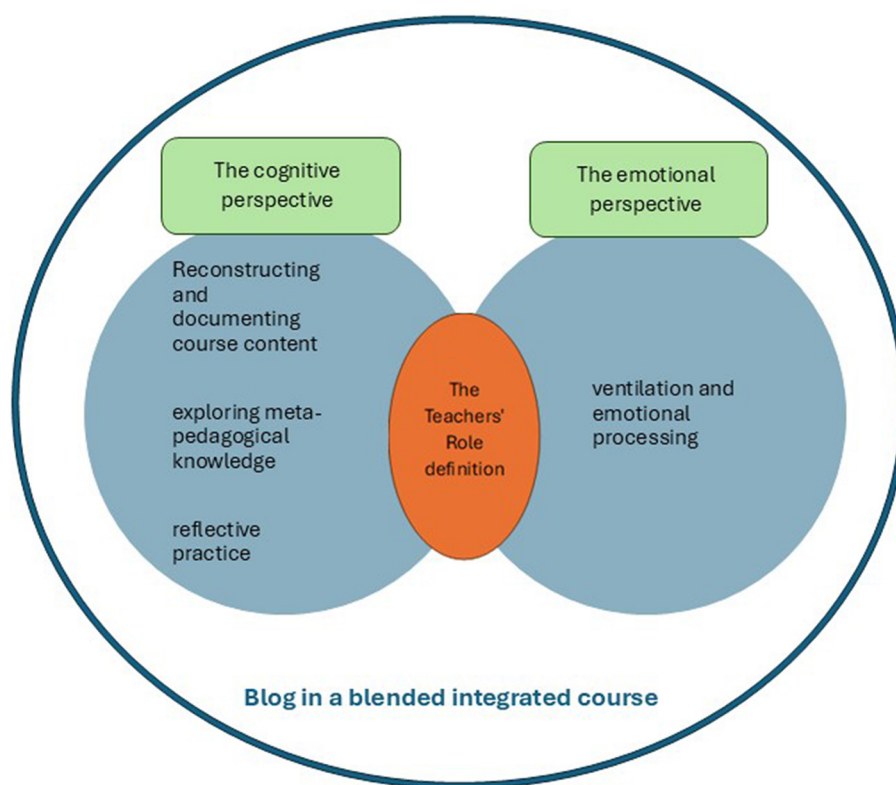


FIGURE 1
The role of the personal blog from the pre-service teachers' perspectives.

as a platform that provides support for pre-service teachers, such as promoting metacognition and improving professional language. In the current study, insights regarding the underlying rationale of various teaching practices emerged, indicating the independent and constructive learning of pedagogical and meta-pedagogical knowledge.

The blogging instructions encouraged reflective engagement with the unique aspects of the integrative course, fostering a deeper examination of the teaching practices that were employed throughout the course. These findings are in line with the literature that perceives the blog to be a meaningful learning tool, promoting in-depth analysis and reflective thinking about teaching and learning (Deng and Yuen, 2011). Generally, the literature emphasizes the necessity of reflection in making sense of new information and fostering deep learning (Xie et al., 2008).

From an emotional aspect, the course content and the manner in which it was taught evoked complex emotions in some of the course participants – in relation to their current learning experiences throughout the course and to their personal past experiences. In this way, the role of the blog in the emotional aspect served as a platform for airing and processing emotions, a type of “personal journal” for the pre-service teachers. This role aligns with findings from the literature indicating the blog’s role as a place for emotional processing (Boniel-Nissim and Barak, 2013; Pennebaker and Chung, 2007).

Many participants used the blog to reflect on their childhood experiences with LD, in response to specific course content or impactful moments. Even pre-service teachers without LD expressed strong emotions about their course experiences, often fostering a deeper sense of identification with students with LD. Some highlighted specific teaching practices, such as workshops, as particularly impactful in eliciting these emotions. According to Boniel-Nissim and Barak (2013), blogging has a therapeutic value, offering an outlet for pressure, pent-up emotions, and self-expression, while fostering clarity in relationships with others and with oneself. This value is reflected in the reduction of negative emotions and in the enhancing of positive ones (Pennebaker and Chung, 2007).

Studies also show that personal-blog writers tend to perceive it as an instrumental space with cognitive benefits, such as organizing learning materials, tracking their learning progress, and promoting reflective thinking. Additionally, it also offers emotional benefits, serving as a platform for emotional release and processing (Biberman-Shalev et al., 2022). Shared reflection on both emotional and cognitive aspects led to the fifth theme, i.e., defining the role of the teacher. It seems that the pre-service teachers integrated their cognitive and emotional insights, leading them to construct an “ideal teacher” figure or archetype, akin to a future journal.” They did so through expressions such as “a teacher needs to...” or “it’s important for every teacher to...”. These insights may help shape their professional perceptions in supporting students with LD. This formulation of the future teacher and the construction of their professional identity are an integral component of the pre-service teachers’ future orientation – defined as an individual’s projection of their future (Seginer, 2009). It encompasses setting goals, defining action plans, and assessing their ability to carry out these plans and achieve their goals. As such, the findings of

this study indicate that the blog supports and contributes to the participants’ future professional orientation.

Importantly, Theme 6 revealed that while the integrative blended-learning course was overall experienced positively, it also presented certain challenges. A few participants voiced concerns about the complexity of the course’s structure, its multi-contextual design, and the predominance of active learning methods over traditional lectures. These reflections suggest that for some pre-service teachers, the diversity of learning contexts and student-centered methods may feel disorienting, especially when dealing with dense theoretical material. Additionally, the blogging itself was not universally perceived as beneficial; some participants saw it as an additional task rather than an organic part of their learning. These insights are crucial for refining future integrative courses and underscore the importance of providing scaffolding, clear structure, and flexibility in reflective assignments. The expression of such challenges highlights the blog’s role not only as a reflective outlet but also as a diagnostic tool for capturing student discomforts, misunderstandings, and suggestions for pedagogical improvement.

One important issue that emerged in this study is whether the blog merely reveals insights and emotions that stem from the writer’s participation on the course, or whether it also generates them through the writing. It is possible that without writing the blog, reflective thinking and in-depth analysis would not have occurred. In this sense, not only does the blog serve as a passive medium for expression, but it also actively fosters deeper thought. According to Boniel-Nissim and Barak (2013), writing has a dialogic component, addressing the recipient and contributing to personal skill development, while reflecting the writer’s feelings. Biberman-Shalev (2020) found that the nature of the writing space itself holds significance, enabling a type of dialogue with a significant other. Even in the absence of a response from the latter, this interaction distinguishes the blog from conventional writing. It could therefore be cautiously inferred that the act of writing, especially in a blog format, enhances cognitive and emotional processing in ways that might not otherwise emerge. Consequently, blogging may serve as a catalyst for sharing significant emotional experiences and gaining cognitive and pedagogical insights.

These processes are uniquely facilitated by the blog’s inherent characteristics. The multimodal capabilities allowed pre-service teachers to express complex thoughts and emotions through varied means, potentially enhancing the richness of their reflections. The asynchronous nature of blogging offered a less immediate and more contemplative space, enabling deeper processing of emotional and cognitive material than might occur in real-time interactions. Crucially, the dialogic component of blogging, where the act of writing implicitly addresses a recipient (the instructor, in this case), transforms it from a mere personal journal into a platform for engaged self-dialogue and preparation for future professional communication. This intrinsic interactivity, even when direct feedback was occasional, fostered a dynamic reflective space, distinguishing the blog’s contribution to cognitive and emotional development from that of more traditional, linear writing assignments.

Finally, an indirect and purely explorative benefit emerged from the study: the analysis of the pre-service teachers’ blogs served as a powerful reflective tool for the course instructors

themselves. By conducting thematic analysis, the lecturers gained valuable insights into both course content and delivery from the students' perspectives, offering a continuous in-depth window into the learning process. This finding suggests that blogs can serve a dual purpose – not only as a learning tool for students, but also as an instrument for the lecturers' professional development and course improvement.

In summary, this research demonstrates that personal blog serves as a powerful instructional tool within integrative courses, fulfilling multiple important roles. The findings suggest that the participants perceived the course as valuable, both in terms of its content and their overall learning experience. Their deep engagement with its unique characteristics, teaching practices, and the emotions that arose through the learning process underscores this perception. Specifically, the blog enabled students to reflect deeply on both course content and instructional methods, fostered the development of meta-pedagogical knowledge, and provided space for emotional expression. Thus, one may conclude that integrating a blog within a predominantly face-to-face blended-learning environment may enhance meaningful learning experiences throughout the course. This aspect may signify that personal blogging can be considered tantamount to implementing cognitive-constructivist theories of learning (Piaget, 1968), as the blog serves as a platform where the pre-service teacher feels comfortable expressing her personal voice and reflections while integrating her experiences with the theories and ideas studied in the course. In this regard, the pre-service teacher undergoes a process of assimilation (i.e., incorporating new information into existing knowledge structures) simultaneously with a process of accommodation (i.e., modifying existing knowledge in response to new information) (Biberman-Shalev, 2018).

However, the blog also highlighted challenges associated with learning on an integrative course in general, and with blogging in particular. As noted by Noel (2015), blogging may sometimes hinder learning by overwhelming learners with information, making it difficult for them to establish conceptual associations. Nevertheless, our study offers valuable insights for teacher educators aiming to design training courses that enhance comprehensive preparation. This successful implementation offers a promising model for teacher-training programs, illustrating how to effectively design an integrative blended-learning course, for introducing pre-service teachers an optimal training setting. Furthermore, the findings remain highly relevant today, especially given the pandemic-driven expansion of blended learning and shifts in digital tools. The COVID-19 pandemic accelerated the adoption of blended learning, making the insights from this study into digital reflective practices even more pertinent for teacher education programs.

4.1 Recommendations

Teacher educators should recognize both the contributions and challenges of reflective blogging within the framework of integrative blended learning design. They may also engage their students in discussions about the role of blogging in

this context, while addressing the students' specific needs. Finally, to maximize the benefits of integrated courses, teacher educators could share the inductive model revealed in this study (Figure 1) with their colleagues and students, and critically discuss optimal approaches to designing meaningful teacher training programs.

4.2 Limitations and future research directions

This study contributes to the literature on blogging in teacher training in general, and as part of an integrative blended-learning course in particular. Yet several research limitations should be addressed. First, all participants were female pre-service teachers from the same special-education course on students with LD. As such, generalization to additional populations should be made with caution. A key limitation of this study is the absence of member checking. This was due to the anonymized nature of the blog data and the ethical decision to conduct analysis only after the course concluded and students received their grades, to prevent potential influence or discomfort. Consequently, participants could not directly validate or refine the generated themes. While the depth of reflection in the content suggested genuine engagement, the lack of member checking represents a recognized methodological limitation for directly confirming findings from the participants' perspective.

Further research should examine the use of blogs in courses with different characteristics, to shed further light on the role of blogs in teacher training. In future research, there is also room to examine the unique contributions of the collaborative blog in the context of an integrative course. Moreover, since the blog writing was a graded course requirement, questions may arise about the pre-service teachers' motivation and authenticity in expressing their thoughts and emotions. However, the depth of reflection that was evident in the analyzed content suggests genuine engagement, and in some cases, deep emersion in the writing process. Further research is needed to expand our understanding of these integrative teaching and learning processes.

4.3 Conclusions

In summary, this research demonstrates that personal blog serves as a powerful instructional tool within integrative courses, fulfilling multiple important roles. The blog enables pre-service teachers to reflect deeply on both course content and instructional methods, while fostering the development of meta-pedagogical knowledge and providing space for emotional expression. Integrating the blog within a predominantly face-to-face blended-learning environment may enhance meaningful learning experiences throughout the course. This successful implementation offers a promising model for teacher-training programs, illustrating how to effectively design an integrative blended-learning course– for introducing pre-service teachers an optimal training setting.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving humans were approved by Prof. Sigal Ben-Zaken, head of the Ethics Committee, Levinsky-Wingate Academic Center. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

EL: Formal analysis, Writing – review & editing, Project administration, Data curation, Methodology, Writing – original draft, Resources, Visualization, Investigation, Supervision, Conceptualization, Funding acquisition, Validation, Software. DF: Project administration, Formal analysis, Data curation, Visualization, Software, Writing – original draft, Funding acquisition, Resources, Conceptualization, Methodology, Investigation, Writing – review & editing, Validation, Supervision. LB-S: Funding acquisition, Resources, Conceptualization, Methodology, Validation, Visualization, Investigation, Project administration, Writing – review & editing, Formal analysis, Supervision, Data curation, Software, Writing – original draft.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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