

Examining Teacher Readiness for Blended Learning: A Case Study in a Sri Lankan Government 1AB School

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Abstract

The integration of Blended Learning (BL), where traditional face-to-face instruction combines digital and online tools into general education, has become increasingly significant with the COVID-19 pandemic to ensure the continuity of education. BL provides flexible, personalized education that promotes student responsibility and digital literacy, but a gap remains between Sri Lanka's policy goals and teachers' potential to implement them. This article explores teacher readiness for implementing the BL approach at a Sri Lankan Government 1AB school, focusing how teachers express their preparedness for BL in terms of digital skills, pedagogical strategies, and resource availability; challenges teachers face when implementing BL; and support systems and resources required to enhance teacher effectiveness as research objectives. A qualitative research methodology was employed, and data were collected from six teachers representing different subject disciplines in grades 6-11 through semi-structured interviews. The responses were thematically analyzed to identify key patterns and themes. According to the findings, participants are open and positive towards BL, but limited resources and infrastructure, a lack of subject-specific digital content, language barriers, and a lack of training on digitalization and education technology hinder its effectiveness. Resource limitations led teachers to utilize their personal devices, which is a privacy concern between work and personal life affairs, and they must depend on freely available learning management platforms such as e-Thaksalawa and DP education. Digital tools are mainly used for content delivery and communication, with the least utilization for assessment and interactive learning. The study highlights the need for improved infrastructure, ongoing professional development, supervision, and contextualized pedagogical innovations, offering key insights for policymakers, educational leaders, and teacher educators to foster an inclusive, technology-enabled education system in Sri Lanka.

Keywords: Blended learning; Digital skills; General Education; Infrastructure; Pedagogical strategies; Teacher readiness

Introduction

Blended Learning (BL), commonly defined as the integration of face-to-face instruction with online or computer-mediated learning experiences, represents a pedagogical approach that leverages the strengths of both environments to enhance access, flexibility, and effectiveness (Graham, 2006; Garrison & Kanuka, 2004; Hrastinski, 2019). Blended learning (BL) has evolved from a simple combination of face-to-face and online instruction into a multifaceted approach that incorporates varied pedagogical strategies and delivery modes (Cuesta Medina, 2017). Effective BL requires improvements in infrastructure, teacher support, and student services (Kumari & Jayasinghe,

2021; Liyanagunawardena et al., 2014). In Sri Lanka, initiatives such as C-DELTA have aimed to enhance digital literacy and leadership; however, schools continue to face challenges with limited ICT facilities (Karunanayaka & Weerakoon, 2020). ICT integration has long been identified as essential for building a knowledge-based economy (Fernando & Ekanayake, 2010), while smart classrooms have demonstrated positive effects on student achievement (Mailewa et al., 2020). Despite this, many schools reverted to traditional methods after the pandemic due to workload, time, and infrastructure constraints, underscoring the need to prioritize digital education for future reforms (Cunningham et al., 2022).

Globally, teaching digital competence is defined by frameworks such as Dig Comp, which emphasize information management, collaboration, content creation, problem-solving, and ICT security (Holik et al., 2023). Yet, digital divides persist in the Asia-Pacific, influenced by factors such as income, education, and gender (Maji & Laha, 2021; Ono, 2005). Research also highlights pedagogical innovations that strengthen BL, including gamification, adaptive technologies, and multimedia content (Duterte, 2024; Fionasari, 2024). Strategies such as flipped classrooms, project-based and inquiry-based learning, and personalized learning are effective in enhancing engagement and outcomes (Balida et al., 2023; McGee, 2014).

In Sri Lanka, BL has shown potential across subject areas, from Oriental Music at the secondary level to mobile game-based learning in primary schools (Kaushal & Panda, 2019; Bandara, 2018). Teachers value BL for integrating online and traditional methods to meet diverse needs (Zhang, 2023; Ashraf et al., 2021; Pardede, 2019), though concerns remain about limited pedagogical skills, exam-oriented systems, and workload pressures (Ashraf et al., 2021; Banihashem et al., 2023). Overall, while BL offers opportunities to strengthen Sri Lankan education, sustained investment, strategic teacher development, and contextualized support are required (Vithanapathirana, 2021).

Against this backdrop, this study examines teacher preparedness for BL in a Sri Lankan government school. It focuses on teachers' digital skills, pedagogical strategies, resource use, challenges, and professional development needs, aiming to generate insights that inform both practice and policy.

Materials and Methods

This study adopted a qualitative case study design to explore teacher readiness for blended learning (BL) in a Sri Lankan government school. The approach was chosen to generate in-depth insights into teachers' preparedness, challenges, and support needs. Six teachers from different subject areas with experience in blended learning were intentionally selected to provide diverse perspectives. Data was gathered through semi-structured interviews focusing on digital skills, pedagogy, challenges, resources, and support, and were analyzed thematically to identify patterns and themes.

The study population comprised 79 teachers from grades 6–11, representing various subjects and teaching in Sinhala and English media, many of whom actively integrate digital tools within BL. The participants were chosen to ensure diversity of subject expertise and varying levels of experience with BL, allowing for rich perspectives while reaching thematic saturation. The six participants represented diverse subject areas, including Business and Accounts Studies, Science and Technology, English, and Western Music. Their teaching experience ranged from 5 to 28 years, with service at the current school varying between 2 and 10 years. Training backgrounds also differed, with some having received recent ICT training while others reported little or no formal preparation.

Data Collection Method

Semi-structured interviews were conducted with six teachers to explore their experiences of blended learning. The interview guide was aligned with the study objectives and focused on three areas:

1. Teacher preparedness in terms of digital skills, pedagogical strategies, and resource availability.
2. Challenges encountered when implementing BL practices.
3. Strategies and support systems required to enhance teacher readiness.

Each interview lasted 45–60 minutes, and participants were encouraged to provide detailed accounts of their practices and needs.

Data Analysis

Data was analyzed using a thematic approach. Interview transcripts were read several times to gain familiarity and then manually coded. Initial codes were developed based on research questions (digital skills, pedagogy, resources, challenges, and support needs), while additional inductive codes were identified from emerging patterns. Similar codes were clustered to form broader categories, which were refined into themes through iterative comparison. To ensure credibility, themes were cross-checked with another researcher and verified against raw data for consistency. The final themes captured teachers' preparedness, barriers to implementation, and strategies required to strengthen blended learning.

Results

Thematic analysis revealed the following key themes.

Table 1

Identified Key Themes

Theme	Description
Attitudes and perceptions	Stakeholders, including school administration and education authorities, support BL, and students show enthusiasm for digital tools. While discipline issues are minimal, concerns remain over privacy, supervision, and connectivity.
Challenges to implementation	Limited infrastructure, subject-specific content gaps, LMS issues, and language barriers hinder implementation. Additional concerns include high teacher workload, lack of advanced training, and risks of technology misuse.
Resource availability	The school has smart classrooms, interactive boards, a computer lab, and Wi-Fi, although issues with electricity and connectivity persist. Teachers and students also rely on personal devices and LMS platforms such as e-Thaksalawa, e-Nenapiyasa, and DP Education.
Pedagogical strategies	Teachers mainly use digital tools for content delivery and communication, with limited use in assessments. Some employ Google Classroom, ministry websites, and simulations to address subject-specific needs.
Digital skills	Teachers possess basic digital knowledge gained through formal training and self-directed or peer learning. They are open to adopting advanced tools, while students adapt readily to digital education.
Further support and resource needs	Although some training programs exist, teachers require more advanced training in digital pedagogy and technology integration, as well as better supervision of resource utilization.

Discussion

Teachers and students are receptive to BL, but structural, technical, and digital skill gaps limit full implementation. A participant stated, “Sinhala medium students show less tendency to search the internet for learning materials because most of the content is in English”. Language disparities and privacy concerns highlight the need for inclusive content and clear policies. The study, limited to one school, offers in-depth insights with implications for supporting teacher readiness for BL in similar contexts. The findings of this study indicate that teachers are generally open to adopting BL, yet infrastructural, pedagogical, and skill-related limitations constrain their readiness. This aligns with an earlier Sri Lankan study, which highlighted the tension between policy aspirations for digital education and ground-level implementation gaps (Karunanayaka & Weerakoon, 2019). Participants valued the potential of BL but reported challenges in integrating digital tools within exam-driven school systems.

A key finding is that teachers mainly used digital technologies for content delivery and communication, while assessment and interactive strategies were underutilized. This pattern echoes international evidence that effective BL requires more than delivery tools; it requires active learning, adaptive technologies, and sustained feedback mechanisms (Protsiv et al., 2016; Zhu et al., 2021). Without targeted professional development, teachers risk reproducing traditional teaching styles in digital form, limiting the transformative potential of BL. The lack of subject-specific content and reliance on freely available platforms such as e-Thaksalawa and DP Education reflects broader issues of resource inequity in Sri Lankan schools. Prior studies confirm that infrastructure gaps and digital divides in the Asia-Pacific are shaped by socioeconomic factors such as income and language (Hossain, 2021; Liyanagunawardena et al., 2014). In this context, the finding that teachers often resorted to using personal devices also raises concerns about privacy and sustainability, reinforcing calls for systemic investment (Owen et al., 2020).

Teachers in this study demonstrated basic digital competencies, gained largely through self-directed and peer learning, with limited structured training. This supports Yin and Mohamad (2023), who emphasize that digital competence is multidimensional and requires ongoing professional development. The gap between teachers’ willingness and their limited pedagogical confidence highlights the importance of models such as TPACK, which integrate technological, pedagogical, and content knowledge for meaningful implementation. Such integrated frameworks are crucial for transforming teachers from mere users of technology into skilled facilitators of technology-enhanced learning experiences, especially given the challenges of resource constraints and the necessity for adaptable pedagogical approaches (Gayur, 2021).

Importantly, the study reveals that students were often more adaptable to digital tools than teachers, which was also stated by participants, a dynamic observed in other contexts (Zhang, 2023; Banihashem et al., 2023). While this enthusiasm presents opportunities, it also raises the need for structured guidance to prevent superficial or problematic use of technology in classrooms. This highlights the critical role of teacher professional development in fostering a balanced and effective integration of digital tools, ensuring that technological proficiency translates into enhanced pedagogical outcomes rather than merely serving as a substitute for traditional methods (Spiteri & Rundgren, 2018).

Implications

The study underscores the need for stronger infrastructure, stable connectivity, and inclusive digital content in local languages. Teacher professional development should prioritize digital pedagogy and subject-specific integration, while ongoing monitoring and support are essential to ensure effective classroom application.

Limitations and Future Research

As a single-school case study with six participants, the findings are context-specific and not widely generalized. Future studies should involve multiple schools, student perspectives, and mixed method designs to validate results and examine the broader impact of blended learning on both teaching and learning outcomes.

Conclusion

This study explored teacher preparedness for BL in a Sri Lankan government 1AB school, highlighting positive attitudes alongside barriers like limited resources, training, and infrastructure. Findings underscore the need for professional development, improved infrastructure, and collaborative support. The study concludes that teachers in Sri Lankan government schools demonstrate a positive orientation towards blended learning but remain only partially prepared to implement it effectively. While they possess basic digital skills and show willingness to adopt new tools, their readiness is constrained by limited infrastructure, unstable connectivity, a lack of subject-specific content, and insufficient professional development.

The findings highlight the need for systemic support, including stable ICT facilities, contextualized digital content in local languages, and continuous training in digital pedagogy. Importantly, training must go beyond tool use to focus on integrating technology with subject knowledge and interactive teaching methods. By drawing attention to the gap between teacher willingness and systemic constraints, this study contributes practical insights for policymakers, school leaders, and teacher educators seeking to strengthen blended learning in Sri Lanka. Although limited to a single case study, the findings offer implications for similar contexts where schools face resource and capacity challenges. Future research across diverse school settings and with larger samples is recommended to further explore teacher readiness, student experiences, and the long-term impacts of blended learning adoption.

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