

MASTERING THE BLENDED LEARNING TRANSITION



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PREFACE



INTRODUCTION

BLENDING LEARNING IN THE CLASSROOM

Blended learning is typically understood to involve a combination of face-to-face and online instruction. However, the concept of blended learning, while widely used, is ambiguous, and varying definitions can highlight different aspects of the learning process. In their review of 74 studies, [Danushka and Weerasinghe \(2021\)](#) found that definitions vary based on whether the focus is on technology, teaching methods, culture or economics. However, most share the common notion of combining face-to-face and online learning to give learners more flexibility.

This integration aims to provide a more flexible and personalised learning experience, leveraging the strengths of both in-person and online instruction to enhance student engagement and learning outcomes ([Sarkar & Chakraborty, 2024](#)). Alongside providing a personalised learning experience, the literature identifies blended learning as having the potential to increase learner engagement, improve the accessibility and flexibility of learning content, and support teachers or facilitators in learner management. Additionally, blended learning can enhance data and feedback cycles, enabling teachers to identify learning gaps and adjust instruction accordingly.

The concept of blended learning emerged in the late 1990s to 2000s with the rise of the Learning Management Systems (LMS) and early online courses. At the time, online learning was used to supplement or complement traditional classrooms ([Sarkar & Chakraborty, 2024](#)). The 2010s saw an increase in the use of adaptive learning technologies (digital tools that adjust lessons and activities to match individual needs and pace), mobile apps, gamification, interactive multimedia, and social media to engage learners. These advancements, coupled with the increased emphasis on learner-centred pedagogy and self-paced learning, popularised blended learning in K-12, higher education and corporate training ([Srivastava & Srivastava, 2024](#)).

Blended learning has become increasingly common in classrooms over the past five years, with the COVID-19 pandemic and subsequent school closures acting as a key catalyst for its adoption ([Ramulumo & Mohapi, 2023](#)). School and university closures during the COVID-19 pandemic led to the rapid adoption of complete online instruction. They reopened with more hybrid and blended models, requiring both teachers and learners around the world to adapt quickly ([Angwaomaodoko, 2023](#)). In the post-COVID-19 era, blended learning has become increasingly common, bringing with it an array of benefits and challenges that influence its effectiveness in different educational contexts ([Ramulumo & Mohapi, 2023](#)).

CONCEPTUAL APPROACH

Blended learning can take place in different contexts, such as workplace training and community learning programmes, with the most common being traditional classrooms in K-12 or higher education. This study will focus on traditional classrooms; therefore, it defines blended learning as an instructional model that merges traditional K-12 classroom methods with digital and online tools. Key stakeholders within this context include K-12 teachers, learners, schools, and the EdTech companies designing products and solutions for these contexts.

In this study, we conceptualise the process of technology adoption in the classroom as comprising onboarding and sustained, ongoing use. This framing allows this research to capture not only the initial introduction of EdTech solutions but also the conditions under which their use becomes embedded in practice. Considering each of these two elements independently:

- User onboarding is the process of introducing new users to a product or service and guiding them on how to use it to meet their needs [\(Userback, 2024\)](#). Thus, in this context, teacher onboarding is a structured process that introduces teachers to new EdTech solutions, guides them through the initial stages, and shows them how to interact with the tool to meet their needs and those of their learners. This process ensures that the user understands how to use the product effectively and understands its features [\(Userback, 2024\)](#).
- Sustained use, also referred to as continued or embedded use, refers to the consistent, continued and meaningful use of technology in the classroom beyond the initial adoption phase. This also involves applying the knowledge, skills, and beliefs acquired during the onboarding phase to technology integration in regular teaching and learning practices (Oubibi et al., [2024](#)).

RATIONALE FOR THIS STUDY

This study seeks to explore how EdTech companies can facilitate teacher onboarding and sustained use in blended learning classroom environments. It examines the barriers that persist in these contexts and the practices that have proven effective in helping educators shift from traditional to blended teaching and learning approaches.

GOALS OF THE STUDY

In examining the onboarding process and mechanisms that support the sustained use of EdTech in classrooms, this study will:

- Identify the key enablers and barriers influencing the adoption of blended learning solutions.
- Explore the factors that drive sustained engagement and embedded use among K-12 teachers; and
- Equip EdTech implementers with insights to strengthen the design and implementation of their onboarding processes.

Through this, the study aims to inform more effective and lasting integration of technology into South Africa's K-12 classrooms.

CHAPTER 1



RESEARCH METHODOLOGY

RESEARCH QUESTIONS

The following research questions guided the study:

- What does effective blended learning look like within the classroom?
- What benefits and challenges do teachers experience when engaging with blended learning solutions?
- How can teachers be better supported through the blended learning onboarding and ongoing use process?
- How, if at all, are EdTech companies gathering feedback on the teachers' experiences of being onboarded and the use of blended learning solutions?
- In what ways can EdTech solutions improve the onboarding of teachers and the use of blended learning solutions?
- How can the challenges identified be mitigated for better teacher onboarding and ongoing use of the blended learning solutions?

RESEARCH DESIGN

Data collection

This study has a qualitative research design and combines primary and secondary data collection. Ten semi-structured key informant interviews (KIIs) were conducted with EdTech implementers, lasting approximately 45-60 minutes each. Two focus group interviews were conducted with teachers, each group consisting of six teachers and lasting approximately 1 hour and 30 minutes. An additional virtual individual interview was conducted with a teacher who could not attend the focus group venue.

After a preliminary analysis, a one-hour validation focus group with eight EdTech implementers was conducted to present emerging themes. This enabled the research participants to challenge, confirm or refine the findings.

A desktop review of relevant secondary sources was conducted to provide contextual background and to enable triangulation with primary data findings. This review included published and peer-reviewed studies from the last five years.

Data analysis

Data analysis followed [Braun and Clarke's \(2006\)](#) six-phase thematic analysis.

All interviews and focus groups were recorded and transcribed using Fireflies AI Notetaker, and the transcripts were read repeatedly to ensure accuracy and familiarity. A codebook was developed to guide the coding process. Initial codes were developed deductively and organised into broader themes and codes. Dedoose 10.0.35, a qualitative data analysis software, was used to manage and code the data. Codes were organised into broader categories and themes. The validation focus group served as a form of member checking, informing the refinement of the final themes.

Sampling strategy

Purposive sampling, in which the researcher deliberately selects participants based on specific characteristics or knowledge they possess, was used to select EdTech implementers based on the design and implementation of their EdTech solutions. This ensured that participants could provide the relevant expertise and insights to respond to the research questions. In addition, snowball sampling, a technique where initial participants recruit subsequent participants from among their acquaintances, was used, where EdTech companies were asked to recommend teachers actively using their solutions in the classroom. The final sample included 10 EdTech implementers and 12 teachers. Please see Annex 1 for a more detailed breakdown of this sample.

Ethical considerations

All participants were informed of the study's purpose, their right to withdraw at any time, and the measures taken to protect confidentiality. Verbal consent was obtained prior to participation. To protect anonymity, pseudonyms were used during coding and analysis, and recordings and transcripts were stored securely. Special care was taken to maintain confidentiality in focus group discussions; participants were encouraged to use pseudonyms or pronouns, particularly when discussing individuals not present in the group.

RESEARCH LIMITATIONS

- **Small sample size:** A limitation of this study is the relatively small sample size. However, it was sufficient for the in-depth exploration this study aimed for; it limits the generalisability of the findings beyond this study of EdTech implementers and teachers. The insights captured reflect specific experiences and may not represent all EdTech implementers and teachers.
- **Sampling bias:** Participating teachers were primarily identified through EdTech implementers. This approach meant the sample consisted mainly of highly motivated and enthusiastic teachers already engaged in blended learning, which may have limited the diversity of perspectives captured. As a result, the voices of teachers who are more resistant to blended learning or who face greater implementation challenges may not have been fully represented. However, the participating teachers were still able to articulate their own challenges and offer critical reflections, as well as share second-hand experiences from colleagues who were less enthusiastic about integrating technology in their classrooms. In addition, the study was limited to teachers based in Cape Town, primarily working in urban and township-based schools. EdTech implementers are from the Injini network and have been supported by our programmes. As a result, the findings may not be representative of teachers and EdTech implementers in other contexts.
- **Researcher bias:** Qualitative research is inherently interpretive and, as a result, carries the risk of researcher bias. To address this, the researcher engaged in reflexive practices, such as peer debriefing, which created space for critical reflection on personal assumptions and perspectives. In addition, a validation session with EdTech implementers was conducted to confirm and refine the researcher's interpretations, thereby enhancing the credibility of the findings.
- **Reliability and validity:** Ensuring reliability and validity in qualitative research can be challenging. To address this, triangulation was applied by combining different data sources, such as the literature review and interviews, to check and support the findings. The research process, including how data were collected and analysed, was also carefully documented to make the study more transparent and easier to follow.

CHAPTER 2



RESEARCH FINDINGS

This chapter presents and discusses the key findings that emerged from the data analysis. The findings are categorised according to the main themes identified through the coding process and explore how these themes address the research questions. The themes focus on the onboarding process and sustained use of EdTech solutions in the classroom. The discussion integrates perspectives from teachers and EdTech implementers with existing literature to highlight consistencies and new insights.

THE TEACHER'S EXPERIENCE WITH BLENDED LEARNING IN THE CLASSROOM

Finding one: Sampled teachers experienced improved engagement among learners when using blended learning solutions.

The sampled teachers reported that introducing technology in the classroom has made their lessons more interactive, supported learners in engaging more effectively with the material, and sparked greater excitement among learners. These teachers also felt that blended learning has made them better teachers. They noted that their students often perceive technology-based activities as “fun”, which increases their motivation and participation. In their opinion, this effect is maintained even as children become more accustomed to using technology. One teacher said, *“In my experience, the novelty of introducing technology in the class for the children never dies down. They’re always excited when you pull out the projector, when you pull out, whatever....If your child is excited to learn something, you’ve won half the battle before you even kind of get them into what you’re trying to teach them”* - Teacher 1, FGD 2

This perception among the participating teachers is further reflected in the literature. A South African study examining the effectiveness of blended learning on learning engagement and academic achievement found that when compared to traditional face-to-face teaching, blended learning significantly improved learner engagement and academic performance ([Chakawodza et al., 2024](#)).

Finding two: Personalised and self-paced learning benefits teachers and learners.

A significant benefit, highlighted by both teachers and EdTech implementers, is the personalised and self-paced learning experience that blended learning offers. Sampled teachers noted that blended learning enables learners to learn at their own pace, fostering personalised learning that addresses individual needs, something that is often difficult to achieve in traditional classroom settings.

EdTech implementers also observed the benefit of providing learners with an active, individualised learning experience. One EdTech implementer expressed: *“Instead of the children sitting passively, either observing or repeating in harmony at the same pace, every learner is now on their own learning journey, sort of learning at the stretch point for their particular knowledge”* - Company 5. In line with this finding, a recent study from the United States exploring the value of adaptive learning in K-12 education, researchers found that for learners, online tools supported personalised learning and greater agency; they were able to progress at their own pace, revisit content and receive real-time help when they needed ([Divanji et al., 2023](#)).



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— [Company 5]

Additionally, personalised learner data improves teachers' efficiency. One teacher shared: *“The app itself records this data, and it uses the data to place a learner on a book with their reading ability... it allows us to see how many minutes or how many seconds they took to answer that question”* - Teacher 5, FDG 1. Research supports this finding, for example, [Ramulumo & Mohapi \(2023\)](#) suggest that technological integration in a blended learning environment allows teachers to access data about learners in their class, which enables them to track how learners engage with learning content, what they struggle with and where they excel, empowering them to adjust instruction and support as needed.

Finding three: Blended learning is linked to improved use of time and space in the classroom.

Participating teachers reported that the blended learning approach improved their use of time and space in the classroom, allowing for more efficient and flexible learning activities. One teacher explained: *“We can check and see what type of questions come up so that when we are doing either revision or teaching lessons, we can adjust those things.”* - Teacher 1, FGD 1. Depending on the model used, teachers may shift routine instruction online to free up classroom time for deeper learning. For instance, they could introduce new content or reinforce existing content online, and use classroom time to tackle concepts that learners may find challenging and address questions. Class time can be organised more effectively, allowing targeted support, small-group work, and collaborative activities.

Similarly, EdTech implementers observed how their solutions can allow more strategic and flexible use of time and space in the classroom. One EdTech implementer highlighted how blended learning can maximise instructional time, transform the classroom into a more responsive learning space, while supporting differentiated learning, saying, *“...sometimes a very smart kid who's progressed very quickly will be pulled out and asked to sit with a group of learners that are struggling. And they do peer-to-peer learning. He does some teaching and explaining [the learner] that really helps those kids. Sometimes the teachers might use the data to pull out, you know, 10 kids and then just give them a refresher on a certain concept”* - Company 5.



We can check and see what type of questions come up so that when we are doing either revision or teaching lessons, we can adjust those things. — [Teacher 1, FGD 1]

Again, these sentiments are supported within the literature. In a study on blended learning in rural South Africa, the authors found that blended learning enhances space and time efficiency by providing students with a flexible schedule that suits their needs, allowing them to learn at their own pace from anywhere ([Ndaba & Dube, 2018](#)). This flexibility enables learners and teachers to decide which activities to complete in the classroom and which to do online, allowing the teacher to focus more on supporting students who are struggling in the classroom.

Finding four: Blended learning can promote continuous professional development and reflective practices.

Participating teachers highlighted that engaging with blended learning tools helps them develop new skills and encourages them to adopt a continuous learning mindset. They expressed that integrating technology in the classroom pushes them to stay up to date with new methods and resources, which contributes to their overall professional development. One teacher shared, *“I do believe it will make me a better teacher in the future. But currently it's equipping me as a learner and I like to know that I'm modelling that behaviour for my learners.”* - Teacher 4, FGD 2. However, it is worth noting again that this was a highly motivated group of teachers who proactively sought out professional development opportunities, and this finding may not be applicable to a broader population of teachers.

This is further validated by desktop research. A 2022 study on teacher educators' perceptions and practices of teaching in a blended learning mode in Ghana similarly highlights that integrating technology into traditional classrooms can promote teachers' professional development. The teachers in the study suggested that adopting a blended learning approach encouraged them to re-evaluate their teaching methods, find new and better ways to use technology in the classroom and restructure their lessons ([Brenya, 2022](#)).



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— [Teacher 4, FGD 2]

BARRIERS TO EFFECTIVE ONBOARDING AND SUSTAINED USE OF BLENDED LEARNING SOLUTIONS IN THE CLASSROOM

If the benefits of blended learning outlined above are to be realised, the barriers that prevent its adoption and sustained use need to be carefully considered. Solutions that fail to design their onboarding practices with these barriers in mind are unlikely to achieve meaningful or lasting implementation. The findings that follow outline the key sentiments expressed during the interviews.

Finding one: Infrastructure constraints are often a barrier for onboarding and sustained use, especially in under-resourced communities and classrooms.

Issues related to internet connectivity and devices can serve as barriers during training. EdTech implementers highlighted that if the technology does not work properly during onboarding sessions, teachers may struggle to focus on the training content. This can lead to frustration and hinder their ability to learn effectively during the onboarding.

If teachers encounter glitches or failures during training, it can diminish their confidence and make them less likely to adopt the blended learning practices being taught. One EdTech implementer expressed: *“The minute that [infrastructure issues] are at play or the minute that happens, it becomes an obstacle to adoption and you’re actually putting a rock in your own road to user adoption... You want a glitch-free experience. That person is already having to embrace change and already having to embrace technology”* - Company 9.

Following this initial training interaction, sampled teachers noted that limited access to devices and to reliable internet connectivity hindered their ability to fully engage with the EdTech tools. This lack of resources made it difficult to implement what they learned during onboarding. The majority of EdTech companies agreed that this was a big challenge in the schools they tried to implement in. One teacher shared that, *“the challenges that most teachers have in not-so-tech-savvy schools is not having the devices number one, but the connectivity yho! I used to work in the Cape Flats, I would have to use my own modem, and I had to stay with my laptop [...]because I don't have a whiteboard to be able to project”* - Teacher 3, FDG 2.

This challenge is widespread, with many schools in South Africa still lacking adequate access to ICT equipment such as computers, tablets, projectors, etc, that can support teaching and learning. Where devices exist, poor maintenance, power outages, outdated equipment and vandalism can disrupt learning ([Mangundu et al., 2025](#)). Successful implementation of blended learning in schools requires adequate access to devices and reliable internet connectivity. This barrier persists as a significant challenge, particularly in remote and underresourced South African schools. According to the Independent Communications Authority of South Africa (ICASA), as of March 2025, 5,323 schools had been connected to the internet in accordance with ICASA requirements. While commendable, the authority recognises that this number still falls short, particularly in rural and remote schools ([ICASA, 2025](#)).



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Finding two: School culture can act as a barrier or enabler to sustained use.

Participating teachers and EdTech implementers noted that a limiting school culture that does not support innovation or collaboration can be a barrier to sustained EdTech use. If the administration and staff are not aligned in their commitment to blended learning, it can lead to resistance and a lack of engagement among teachers during the onboarding process, hindering adoption and sustained use. One teacher shared that *“There's a gap in school culture...There's no way that one champion can do everything, so that's one of the biggest challenges for public schools and underprivileged schools to incorporate tech because the school culture doesn't believe in the model as is, and that is the gap, and that's why things can't filter through”* - Teacher 4, FGD 2.

This suggests that effective onboarding and sustained use go beyond individual teacher training but require a broader school culture that values innovation, collaboration, and adaptability. In line with this finding, [Purnomo et al., \(2024\)](#), highlight that cultivating a supportive school culture is essential for the successful implementation of blended learning. Their study found that schools that intentionally aligned their vision with digital transformation, leadership, teacher readiness, and support were more effective at integrating blended learning.



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Finding three: Technophobia can hinder the adoption and sustained use of blended learning.

EdTech implementers highlighted that some teachers may feel uncomfortable or fearful about introducing technology into their classroom, especially if they lack prior experience. These fears can lead to resistance or unwillingness to participate in the onboarding process, as well as anxiety about their ability to integrate technology into their teaching effectively. According to EdTech implementers, the fear of change itself can be a significant barrier during onboarding, as at times they have found that even when teachers are keen, their fear can hold them back.

According to researchers, individuals' ability to effectively use and integrate technology into teaching and learning depends on their level of technological literacy and competency ([Angwaomaodoko, 2023](#)). This lack of knowledge can often manifest as fear, anxiety and resistance to adopting blended learning ([Adeyele, 2024](#)). Teachers who are afraid of or resistant to using technology in their lessons may also struggle to support learners when they need it ([Rehman et al., 2024](#)). One EdTech implementer reflected this finding, saying: “...[teachers] have got to have at least basic technical skills. So, the combination of attitude and basic technical competence. If they don't have that, it's another step in the onboarding process. So, you might have like a 65-year-old teacher who's super keen, but actually she's very scared of technology. It's not likely to work because she's going to get so stressed about using the tech that she's not going to adopt the bigger solution” - Company 9.

Individual schools will likely include teachers with varying levels of technological proficiency. The teachers in the sample reported not having first-hand experience with fears around technology; however, they observed this fear among their colleagues, which significantly affects whether and how they use EdTech solutions in the classroom. One shared, “Sometimes it seems simple to me... but then there are some functions here and there that some teachers struggle with” - Teacher 5, FGD 1. Thus, onboarding must accommodate these different proficiency levels.



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STRATEGIES FOR EFFECTIVE ONBOARDING TO ENCOURAGE SUSTAINED USE OF EDTECH TOOLS IN THE CLASSROOM

Finding one: Onboarding leads to sustained use but should not be viewed as a one-off activity.

Onboarding is not a single event or touch point. Teachers and EdTech implementers agree that there is a strong need for comprehensive support during and after the initial onboarding, including ongoing professional development, mentorship, and access to resources that help teachers effectively implement blended learning. One EdTech implementer expressed, “... you can't show them [Teachers] in one week and expect them to do everything perfectly. When you actually go into the classroom, and you work alongside them, and you see that they're doing things wrong, you can help... and a constant monthly upskill training. So, every month they have to do a training module with us, it upskills them” - Company 1. Similarly, teachers acknowledge the importance of a well-tailored onboarding process; however, they maintain that this is the first touchpoint and emphasise the need for tailored, ongoing training that addresses specific pain points.

Continuous training not only equips teachers with the necessary skills to integrate technology into the classroom but also ensures they continually improve, stay up to date with the latest developments, and are better equipped to adopt new technologies as they arise. In a study investigating the influence of technological literacy on teachers' adoption of blended learning in the North West province, the researcher found that teachers require not only one-time training or workshops but also sustained, iterative support to foster lasting change in their skill set ([Teane, 2024](#)).

In working towards this, maintaining open lines of communication is essential for effective support. Regular check-ins, support sessions, and WhatsApp channels help resolve issues that may arise while using EdTech solutions. Teachers stressed the importance of clear communication regarding updates, changes or new features to the technology well in advance. One teacher shared, “... the reason why we had glitches was that there was a new version, so communication is also important. They need to inform us if there's a new version of her app coming out to avoid confusion” - Teacher 3, FGD 1.

Finding two: Onboarding must be contextually relevant to teachers

When training is not contextually relevant, it can be difficult for teachers to apply what they learn during onboarding, reducing the likelihood of adoption and sustained use. Participating teachers noted that the training provided by EdTech companies does not always account for the unique circumstances and challenges of their specific school environments. One teacher shared that *“the support we get from those who come to train us often doesn’t reflect the realities of what actually happens in the classroom, it’s so far-fetched. That is why they cannot support effectively because they speak from a theoretical perspective of how things should work, not how they actually work. I think that causes the barrier to support.”* - Teacher 2, FGD 2.

Teachers working in low-resourced communities suggested that onboarding does not always account for language barriers, overcrowded classrooms, or limited resources. For example, lessons are sometimes tailored for a certain number of learners, and the reality is that some classrooms are overcrowded, meaning teachers would have to tailor content to the numbers they have in their classrooms, which can be challenging. This lack of contextual relevance can make it difficult for teachers to apply what they learn effectively.

A person or team from the local area is often the best placed to offer training, as they are more familiar with the area, the language, and the challenges that teachers and students in that area/community face. Some EdTechs indicated that training teachers who would then train other teachers could be effective in helping teachers feel more comfortable. One EdTech implementer shared, *“So at this stage it’s our internal team doing the training, but with one of the facilitators in the session being a full-time teacher...the moment when she comes in and she talks about firsthand experience of the solution in her classroom, it makes it more relevant for the teacher.”* Company 10.

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The support we get from those who come to train us often doesn’t reflect the realities of what actually happens in the classroom, it’s so far-fetched. — [Teacher 2, FGD 2]

Finding three: Onboarding should include all stakeholders, not just the principal or champion.

The sampled teachers emphasised the importance of inclusive onboarding that engages all staff members using the solution, not just a select few. Teachers suggested that principals, as well as school management, should be included in the onboarding process and continuous professional development. This inclusive approach helps create a shared understanding of how technologies should be used to enhance teaching and learning. A culture that values input and participation of all school staff members can foster a more supportive environment for implementing blended learning and promote collective ownership of the change process. The teachers shared, *“They [EdTech implementers] should also give training to the principal and the School Management team in that way, training filters down to the teachers. It becomes the norm. When training is provided to everybody, then it’s not just the champion, driving behind it and advocating for it [blended learning], everyone understands the importance of it.”* - Teacher 3, FGD 2. This links back to the point discussed above about school culture: schools that proactively include a wider range of stakeholders in decision-making and onboarding processes are likely to foster more supportive cultures.

Finding four: Supporting teachers with classroom management is important for sustained use.

Teachers faced challenges in balancing traditional teaching methods with new digital tools. They need to find ways to integrate technology without compromising classroom structure and discipline, which requires additional planning and adaptation. This means teachers have to take extra measures to manage their classrooms, with one sharing, *“It does make it challenging sometimes because they have to listen to us and listen to the videos for instructions. Sometimes they open YouTube in the background and play music and then pretend like they are working or co-pilot and AI to look for answers, so you have to always check and see who’s doing what”* - Teacher 1, FGD 1. However, onboarding will often focus on the technical aspects of using the solution, and does not always cover the classroom management aspect.

Teachers further highlighted that learners may become overly excited or distracted during tech lessons, which can complicate discipline. Teachers may struggle with instilling discipline in a tech-focused environment, as it is a new dynamic for both teachers and learners, with one teacher saying, *“Sometimes teachers don't know how to instil discipline when it comes to a tech lesson because it's something new in the classroom and the kids go crazy”* - Teacher 12, KII. In a study exploring the perceived benefits and challenges of blended learning for natural sciences teachers, researchers found that some teachers found the use of smart equipment in classrooms distracting for their learners, thereby adding an extra layer of classroom management (Silva et al., [2023](#)). This highlights the need for the onboarding process to cover proper classroom management, equipping teachers with the necessary skills to transition smoothly and implement EdTech tools effectively.

Finding five: Gathering feedback is crucial for onboarding and sustained use.

Some EdTech implementers emphasised the importance of gathering feedback to refine and enhance future onboarding processes. Four of the 10 companies administered post-training surveys, which were used to adjust content and delivery methods to better meet teachers' needs. Some used more informal channels, such as WhatsApp, to gather feedback, encouraging teachers to send comments and suggestions after the onboarding process. One EdTech implementer shared that *“At the end of every training session, we also have comments for the teachers to make on how they found the training, what their gaps? What they liked or didn't like, and advice for the future. Then we just take all of those comments, and then we just tailor the next training so we are continuously bettering and improving our training according to what the teachers are finding.”* - Company 1.

From the data collected, most feedback focused on teachers' experience with the product and the support they received post-onboarding and adoption, rather than on their onboarding experience. Regarding sustained use, two companies used formal surveys to track teachers' ongoing experiences with the product, while most relied on classroom observations by visiting schools to see how tools were being used in practice. Most EdTech implementers also mentioned that regular check-ins and open communication channels helped them gather informal feedback and provide continued support.

Wherever possible, data collection processes should move beyond extractive practices, ensuring that the insights generated are visibly integrated into the development and refinement of solutions. Teachers appreciated the regular check-ins and were pleased to see their comments, concerns and suggestions taken into consideration; this seemed to keep them motivated. One teacher said: *“It was quite nice for us as the teachers, we said, ‘Oh, this was what I sent in a month ago, I see it's fixed, it's happening, the colours are changing, the picture is bigger, or it's smaller’... So even now we do send out suggestions, and it's nice that they are integrated, or changed.”* - Teacher 3, FGD 1.



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— **[Company 1]**

Finding six: The transition to blended learning often requires a mindset shift in teachers.

Both teachers and EdTech implementers agree that while onboarding to the technical aspects of integrating technology in the classroom is crucial, the psychology behind the transition from traditional to blended learning also needs to be addressed. The transition involves the teacher becoming more open to change, experimenting with new technology and adopting a facilitator's role rather than delivering content. One EdTech implementer shared: *"So the training process that we envisage means that teachers need to shift their understanding of what their role is from a controller to an enabler... They need to sort of change that mindset and then learn a whole lot of other blended teaching skills in the classroom."* - Company 5. This transition can be challenging for teachers and should be incorporated into the onboarding process. Understanding and supporting the psychology behind change is crucial for successful implementation. This point encapsulates many of the issues already discussed above.

Teachers suggested that they and their colleagues should adopt a growth mindset, one that views technology not as a threat but as an opportunity to enhance teaching practice and help learners improve their learning outcomes. They also emphasised that this mindset shift should be included in the onboarding process; however, it takes time and should also form part of continuous professional development. [Howard \(2021\)](#) found that lecturers shifting to blended learning often experienced uncertainty and struggled with their established teaching methods and beliefs, which disrupted their sense of professional identity. This suggests that successful implementation requires both technical support and support for adopting new beliefs and practices that align with blended learning environments.



So the training process that we envisage means that teachers need to shift their understanding of what their role is from a controller to an enabler... They need to sort of change that mindset and then learn a whole lot of other blended teaching skills in the classroom. — [Company 5]

CHAPTER 3



RECOMMENDATIONS

This section proposes recommendations for EdTech implementers, teachers, schools, and the government based on the study's findings.

RECOMMENDATIONS FOR EDTECH IMPLEMENTERS

Recommendation one: EdTech implementers should ensure that onboarding processes are resilient to potential disruptions or technical difficulties.

Even minor disruptions can significantly reduce the effectiveness of teacher onboarding. Methods that mitigate this risk include developing offline functionality, bringing battery-powered projectors to onboarding sessions, and providing physical backup materials (i.e., printed copies).

Similarly, the solution itself must be easy to implement in the classroom for teachers to adopt and use it sustainably. While this may look different across contexts, it is important to stress-test solutions under realistic conditions (e.g., in low-bandwidth environments), provide clear troubleshooting guides for teachers, and offer responsive support channels, such as WhatsApp groups or on-call technicians. Additionally, paper-based components that complement the technology can add significant value, ensuring continuity when digital tools are unavailable. Testing the solution in real classrooms and speaking directly with the teachers who will use it is vital to ensure its relevance and usability.

Recommendation two: EdTech implementers should ensure that onboarding is contextually relevant and rooted in the everyday realities of the classroom.

Instead of focusing only on the technical aspects of how the tool works, onboarding should show teachers how to use the tools in a way that makes sense in their daily lessons, within their resource constraints, for their learners, and within the communities they work in. This may look like using trainers who have classroom or teaching experience, who understand the education landscape and the challenges that teachers face, and who know the local language and come from the same or a similar context. This ensures that onboarding feels practical and connected to the teacher's real environments, which can help make teachers feel more confident and motivated to continue using technology in the classroom.

Recommendation three: Onboarding should extend beyond a single champion or select teachers to include all stakeholders, such as principals, subject heads, and other relevant staff members.

This ensures collective ownership of the technology. Inclusive onboarding ensures that everyone understands the purpose of the tools, how they align with teaching and learning, and how to provide peer support during the transition to blended learning. In addition, including all relevant staff reduces the dependency on a single individual to sustain implementation, which may encourage adoption and strengthen school culture around blended learning.

Recommendation four: EdTech implementers should design and view onboarding as an ongoing process that extends beyond initial training.

This can be achieved through refresher training sessions (weekly, bi-weekly, monthly, etc), regular check-ins, classroom visits and digital communities of practice. WhatsApp emerged as a valuable platform for supporting teachers with troubleshooting and ongoing skills development. This continuous support helps reinforce learning, address challenges as they arise, and sustain motivation.

Recommendation five: The transition from onboarding to sustained use may be more effective if EdTech implementers offer practical support through integrating classroom management strategies to help teachers balance traditional methods with new digital tools.

This could include providing teachers with strategies to manage both learner engagement and device use simultaneously. EdTech implementers are encouraged to engage with teachers and understand the issues they face with classroom management. In addition, trainers may use demonstrations, model lessons and peer-to-peer sharing to help teachers see how they can effectively apply these strategies in real classroom settings.

Recommendation six: EdTech implementers should establish feedback mechanisms to gather feedback on teachers' experience with the onboarding process and other contextual experiences, not just the tool itself.

This allows EdTech implementers to continually refine their onboarding process to better respond to teacher needs and preferences. Simple and accessible channels such as WhatsApp, short post-training surveys, and in-person check-ins are valuable. Additionally, teachers feel more valued and motivated to use the technology when their suggestions lead to visible improvements. Thus, when feedback is used to refine or iterate, this should be clearly shared with users.

Recommendation seven: EdTech implementers should prioritise the teacher experience and recognise teachers as individuals with specific needs, as doing so can help achieve meaningful adoption and sustained use.

This requires designing human-centred touchpoints that balance empathy with scalability and cost-efficiency. This can include acknowledging the emotional transition of blended learning, affirming teachers, celebrating small wins and continuously encouraging them. EdTech implementers can facilitate peer support and mentorship groups where teachers can share experiences, classroom or time management strategies, troubleshoot challenges, and encourage one another. During the onboarding process, trainers should emphasise that technology is intended to enhance rather than replace, and acknowledge that mistakes are part of the process. These strategies could help teachers approach the transition to blended learning with confidence, reduced anxiety and set a good foundation for sustained use.

RECOMMENDATIONS FOR SCHOOLS AND TEACHERS

Recommendation one: School leaders should equip their teachers with foundational digital literacy skills to ensure that they are comfortable with digital tools before introducing blended learning.

These foundational skills could reduce fear and anxiety, allowing teachers to focus on effectively integrating digital tools into their classrooms. In practice, this could include conducting basic digital skills audits and offering practical training sessions tailored to needs. It is also acknowledged that the Department of Basic Education (DBE) and the SETAs have an important role to play here, discussed further below.

Recommendation two: School leaders should cultivate a school culture that encourages innovation, collaboration and openness to change.

They can begin by modelling positive attitudes toward technology, using digital tools in their own work and communicating a clear, shared vision for how technology supports teaching and learning before adoption. A supportive culture allows teachers to experiment, make mistakes and learn without fear of judgment. School leaders should also create opportunities for collaboration and spaces where teachers can have a voice in the type of technology they want to use and share experiences and challenges.

For example, teachers should be encouraged to take advantage of professional development opportunities around technology and innovation in teaching practice. These can include short courses, webinars and communities of practice offered by their schools or outside other organisations. Taking initiative for their own learning and development ensures that teachers move from being passive recipients of training to active participants. This proactive mindset could help them engage more deeply with new technologies, ask meaningful questions and adapt tools to meet their needs and those of their learners. This not only strengthens their confidence but also supports continued use of technology in the classroom.

Recommendation three: To fully benefit from blended learning, teachers should be encouraged to engage in the necessary mindset shift by embracing their evolving role from content deliverer to facilitator.

This change in perspective would allow teachers to view change as an opportunity for growth rather than a threat. Teachers participating in the study suggested that, by approaching blended learning with curiosity and openness rather than apprehension, they open themselves to opportunities for learning that could positively impact their teaching. One example of how EdTechs have done this is by having the teacher supported by a facilitator. The facilitator's role is to ensure the technology runs smoothly and that learners are using it correctly. The teacher can then focus on supporting individual learners and delivering the content. This mindset shift supports sustained use by helping teachers remain flexible and motivated to improve their practice. It is worth noting that one of the EdTech companies interviewed is already using this model, demonstrating its feasibility and potential to strengthen sustained use.

RECOMMENDATIONS FOR THE GOVERNMENT AND THE BROADER EDUCATION ECOSYSTEM

Recommendation one: Investment in reliable connectivity, electricity supply, and device access is fundamental for the successful implementation of blended learning.

Without addressing these systemic barriers, even the best-designed EdTech interventions risk limited impact. It is recognised that the DBE is making efforts to address the physical infrastructure gaps faced by many schools. Partnerships with telecommunications providers and the private sector could support infrastructure rollout in under-resourced areas. Additionally, private partners are working with schools and EdTech providers, for example, by developing data-free solutions. One example of this is in 2020, MTN SA Foundation invested R3 million in the EdTech Siyavula e-learning platform, which offers online textbooks, practice software, and exam preparation content. In addition, all content on the Siyavula platform has been zero-rated for MTN customers – meaning learners incur no data costs when using it.

Recommendation two: There is a need to foster greater collaboration among EdTech implementers, the government and other education institutions to strengthen the impact and sustainability of technology in classrooms.

These institutions and organisations can work together to facilitate partnerships, create spaces for dialogue and support joint initiatives that address the needs of teachers and learners as they transition to blended learning. Collaboration also enables the sharing of data, resources, and best practices, allowing successful models of onboarding and sustained use to be scaled more effectively. Initiatives such as EdTech roadshows and school-focused innovation showcases can create an enabling environment and foster a better culture of innovation. Examples here include the [Schoolscape's Academic Roadshow](#). However, such initiatives will be most effective when undertaken collaboratively and supported by the national and provincial departments.

CHAPTER 4



CONCLUSION

The study's findings highlight that effective teacher onboarding for blended learning solutions extends beyond initial technical training. Barriers such as limited infrastructure, technophobia, and a limiting school culture pose significant challenges; however, these can be mitigated through a continuous, contextually relevant, and inclusive onboarding process.

Onboarding is most successful when it includes classroom management strategies, opportunities for feedback, and collaboration across all levels of the school. Effective teacher onboarding for blended learning is a holistic rather than a purely technical process. It requires addressing both the external conditions that shape teachers' experiences and the internal mindset shifts that enable long-lasting change.

The sustained use of blended learning is more effective when teachers receive continuous professional development, mentorship, and support in developing the mindset shifts required to integrate technology into teaching. When teachers feel supported, blended learning becomes more than just a method of instruction; it becomes a sustainable part of teaching and learning.

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APPENDICES

APPENDIX 1: PROFILES OF TEACHERS INCLUDED IN THE SAMPLE

| Focus Group Discussion 1 (FGD 1) | | | | |
|----------------------------------|--------|----------------|-----------------------|---|
| Teacher number | Gender | Grade level | Public/private school | Subject focus area |
| Teacher 1 | Male | High school | Public | Mathematics, Mathematical literacy, Business studies, Life sciences |
| Teacher 2 | Female | ECD | Public | ECD has no particular subject area |
| Teacher 3 | Female | ECD | Public | ECD has no particular subject area |
| Teacher 4 | Female | ECD | Public | ECD has no particular subject area |
| Teacher 5 | Female | Primary School | Public | English |
| Teacher 6 | Female | Primary School | Public | English |

| Focus Group Discussion 2 (FGD 2) | | | | |
|----------------------------------|--------|----------------|-----------------------|--|
| Teacher number | Gender | Grade level | Public/private school | Subject focus area |
| Teacher 1 | Female | Primary School | Public | Literacy, Numeracy |
| Teacher 2 | Female | Primary School | Public | English, Mathematics |
| Teacher 3 | Male | High School | Public | Economic and Management Sciences, Business studies |
| Teacher 4 | Female | High School | Private | Accounting, Economics, Coding and Robotics |
| Teacher 5 | Female | High school | Public | Tourism, Creative Arts |

| Key Informant Interview (KII) | | | | |
|-------------------------------|--------|-------------|-----------------------|------------------------------|
| Teacher number | Gender | Grade level | Public/private school | Subject focus area |
| Teacher 1 | Female | High School | Private | Business Studies, Accounting |