



Task-Based Language Teaching (TBLT) in the Digital Age

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Abstract

Background and Aim: In the evolving landscape of education, Task-Based Language Teaching (TBLT) has gained prominence for promoting real-world communication skills. However, the rapid transition to digital learning during and after the COVID-19 pandemic highlights the need to explore the role of digital tools in enhancing TBLT's collaborative and interactive dimensions. Despite numerous studies focusing on digital tools in education, a critical gap remains in understanding how these tools specifically support meaningful task completion, engagement, and teamwork within TBLT frameworks in post-pandemic educational settings. This study aims to address this gap by examining the effectiveness of digital tools in promoting interaction and collaboration, which are core elements of TBLT.

Methodology: This qualitative study draws on a comprehensive review of peer-reviewed journal articles, books, and research reports published between 2010 and 2023. The selected literature focuses on the intersection of TBLT, educational technology, and digital tools. Using a thematic content analysis framework, the study identifies recurring themes, insights, and challenges related to the use of learning management systems (LMS), video conferencing platforms, mobile applications, and collaborative tools in TBLT environments. Emphasis is placed on evaluating these tools' capacity to facilitate student engagement, foster teamwork, and personalize learning experiences.

Results: The findings demonstrate that digital tools, particularly LMSs such as Moodle and Blackboard, and video conferencing platforms such as Zoom and Google Meet, play a vital role in enhancing students' engagement and interaction. These tools enable synchronous and asynchronous communication, provide access to diverse resources, and support real-time collaboration through features like breakout rooms and shared documents. Collaborative tools such as Google Docs and Padlet further enhance task completion by enabling students to work together, regardless of location. However, challenges remain, including varying levels of students' digital literacy, unequal access to technology, information overload, and difficulties in maintaining language authenticity during digital interactions.





Conclusion: The study underscores the importance of integrating a combination of learning management systems, real-time communication platforms, and collaborative tools to create effective TBLT environments. Educators are encouraged to design tasks that leverage these tools while maintaining a focus on language-learning objectives. Careful scaffolding and ongoing feedback are essential to ensure meaningful participation and language development. Policymakers should also prioritize equitable access to digital resources to bridge the digital divide among learners. While this study provides valuable insights into the use of digital tools in TBLT, it is limited by the lack of direct empirical data from classroom implementations. Future research should focus on longitudinal and mixed-method studies to measure the sustained impact of digital tools on language acquisition, especially in diverse educational contexts. Additionally, investigating how different tools support specific language skills, such as speaking and writing, would provide deeper insights into optimizing TBLT practices.

Keywords: Task-Based Language; Teaching; Digital Age

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Introduction

In recent years, Task-Based Language Teaching (TBLT) has emerged as a prominent pedagogical approach, aligning with broader trends in language education that emphasize communicative competence and learner-centered teaching. TBLT focuses on real-world tasks, encouraging students to develop language skills through meaningful interaction rather than traditional grammar-based instruction (Ellis, 2003; Long, 1985). This approach responds to the shift in modern education towards fostering student autonomy, collaboration, and problem-solving abilities, preparing learners to use language effectively in authentic contexts (Richards & Rodgers, 2001).

The rapid advancement of digital technology has significantly reshaped the educational landscape, making the integration of digital tools into TBLT both a natural and necessary progression. Technology offers new opportunities to address the challenges of traditional TBLT, such as limited access to authentic language environments, logistical barriers to group work, and the need for individualized feedback. Digital tools enable greater flexibility, engagement, and collaboration, thus enhancing the effectiveness of task-based learning in the digital age (Thomas & Reinders, 2010; González-Lloret & Ortega, 2014). This evolution is particularly relevant in the aftermath of the COVID-19 pandemic, which has accelerated the adoption of remote learning technologies and increased the need for accessible, interactive, and learner-centered educational models (Redecker & Punie, 2017).

This study focuses on the integration of specific types of digital tools within TBLT, including Learning Management Systems (LMSs) such as Moodle and Blackboard, language-





learning applications such as Duolingo, ELSA Speak, and Babbel, and video conferencing platforms such as Zoom, Google Meet, and Microsoft Teams. These tools play distinct roles in enhancing the TBLT framework by facilitating real-time collaboration, asynchronous learning, and self-directed practice. Collaborative platforms like Google Docs and Padlet further support group tasks, enabling students to co-create and share content effectively, regardless of their physical location (González-Lloret & Ortega, 2014).

Despite the growing body of research on the use of technology in language education, specific gaps remain in the literature regarding the integration of digital tools within TBLT frameworks. While previous studies highlight the general benefits of digital platforms, they often overlook key challenges related to maintaining task authenticity in virtual environments, supporting learners at varying proficiency levels, and addressing digital literacy barriers (Van Dijk, 2020; Bawden & Robinson, 2009). Furthermore, limited research explores how digital tools affect learner motivation, engagement, and language proficiency across different educational contexts, particularly in post-pandemic settings. This study seeks to address these gaps by examining the effectiveness of specific digital tools in enhancing TBLT outcomes and identifying strategies for overcoming the challenges associated with their implementation.

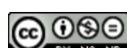
This research aims to investigate how digital tools can optimize the collaborative and interactive dimensions of TBLT, fostering learner engagement and improving task performance. It also examines the influence of digital literacy on students' participation and explores solutions to mitigate technology access disparities. Through a comprehensive review of existing literature, the study aims to provide practical recommendations for educators and policymakers on integrating digital platforms into TBLT to create flexible, engaging, and effective language-learning environments.

This paper contributes to ongoing discussions about the future of technology-mediated language education, offering insights into how TBLT can adapt to meet the needs of learners in the digital age. The findings will inform educators on best practices for task design and tool selection and highlight the pedagogical implications of using digital tools to support authentic language learning experiences. By addressing both the opportunities and challenges presented by technology, this research aims to guide the development of more effective TBLT environments that prepare learners for real-world communication in a globalized, digital society.

Definition, Background, and Implementation of Task-Based Language Learning (TBL)

Definition of Task-Based Language Learning (TBL)

Task-Based Language Learning (TBL) is a learner-centered approach that emphasizes meaningful communication through the completion of real-life tasks. In the context of TBL, a real-





life task is any activity that mirrors authentic situations learners are likely to encounter outside the classroom, requiring them to use the target language in practical ways. Such tasks often involve problem-solving, role-playing, decision-making, and collaborative projects. For example, students may engage in role-plays where they simulate booking a hotel room, problem-solving activities such as planning a group trip, or simulations of job interviews to practice professional communication. These tasks help learners acquire language skills naturally through interaction and negotiation of meaning, rather than memorizing isolated language forms (Ellis, 2003).

A key aspect of TBL is that the primary focus is on task completion rather than explicit grammar instruction, with language emerging naturally as learners engage in the task. Tasks are typically organized into three stages:

1) Pre-task stage: Teachers introduce the topic, relevant vocabulary, and task instructions to prepare learners for the activity.

2) Task stage: Learners work individually or in groups to complete the task, focusing on communication.

3) Post-task stage: Learners reflect on their performance and receive feedback to improve both fluency and accuracy.

This cyclical process emphasizes fluency development, fosters learner autonomy, and encourages collaboration – key principles that distinguish TBL from traditional language teaching approaches (Skehan, 1998).

Historical Background of TBL

TBL originated from the principles of Communicative Language Teaching (CLT), which emerged in the 1970s as a response to the limitations of earlier methods, such as the audio-lingual method and the grammar-translation method (Richards & Rodgers, 2001). These older methods often relied on rote memorization and repetitive drills, leading to limited communicative competence among learners. CLT emphasized the importance of meaningful interaction but lacked the structured focus on real-world tasks that TBL offers.

The development of TBL was heavily influenced by N. S. Prabhu, whose Bangalore Project in the 1980s demonstrated that learners acquire language more effectively when they are focused on completing tasks rather than on explicit language rules (Prabhu, 1987). Building on these ideas, Michael Long (1985) introduced the concept of "focus on form", which highlights the importance of drawing learners' attention to language forms within meaningful communication. Rod Ellis (2003) further refined the approach by emphasizing the sequencing of tasks and the role of feedback in promoting both fluency and accuracy. These scholars laid the theoretical foundations for TBL, positioning it as a practical, engaging, and effective alternative to more traditional methods.





Theoretical Foundations of TBL

TBL is supported by both cognitive and sociocultural theories of language learning. From a cognitive perspective, learners acquire language by processing linguistic input and practicing its use in meaningful contexts (Skehan, 2018). The interaction hypothesis, developed by Long (1985), posits that language acquisition is facilitated through interaction and negotiation of meaning during communicative tasks. Meanwhile, sociocultural theories emphasize the role of social interaction in learning, suggesting that learners develop language competence through collaboration with peers and teachers (Vygotsky, 1978). These theoretical perspectives underpin the design of TBL activities, highlighting the importance of scaffolded learning and authentic communication.

Digital Implementation of TBL

The integration of digital tools has transformed the way TBL is implemented, offering new opportunities for collaboration, feedback, and personalized learning. In digital TBL, the three stages of task completion can be supported by various technologies:

1) Pre-task stage: Teachers use Learning Management Systems (LMSs) like Moodle and Blackboard to post task instructions, provide learning materials, and set expectations. These platforms also allow teachers to create discussion forums for brainstorming and vocabulary practice, preparing learners for the task.

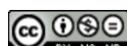
2) Task stage: Video conferencing platforms such as Zoom and Google Meet facilitate real-time collaboration through breakout rooms, where learners can engage in role-plays or group discussions. Additionally, language-learning applications like Duolingo and Babbel offer task-based activities aligned with learners' proficiency levels, promoting independent practice.

3) Post-task stage: Collaborative tools like Google Docs and Padlet enable students to co-create content and reflect on their performance. Teachers can use these platforms to provide feedback, while LMSs track progress and facilitate peer reviews, ensuring continuous improvement.

The digital implementation of TBL offers several advantages, including greater flexibility in scheduling tasks, increased access to diverse resources, and immediate feedback through automated tools (González-Lloret & Ortega, 2014). However, successful implementation requires addressing several challenges, including digital literacy, internet access, and task authenticity.

Challenges and Strategies for Digital TBL

While digital tools provide valuable support for TBL, they also present challenges. Not all learners possess the same level of digital literacy, which can hinder their participation in online tasks (Van Dijk, 2020). Additionally, unequal access to technology can create disparities in learning





outcomes, particularly in regions with limited internet infrastructure (Bawden & Robinson, 2009). To address these challenges, educators can:

- 1) Provide digital literacy training to help students use online platforms effectively.
- 2) Design low-bandwidth activities that are accessible to students with limited internet access.
- 3) Use universally accessible tools that work across different devices and platforms.

Maintaining task authenticity in digital environments is another important consideration. While technology offers new ways to engage learners, tasks must still reflect real-world communication to remain effective. Educators should strive to balance the structure provided by digital tools with opportunities for creative language use. For example, role-play activities can be adapted to virtual environments by incorporating video conferencing tools that allow students to interact as they would in real-life scenarios.

Conclusion: The integration of digital tools has made TBL more flexible, accessible, and collaborative, allowing educators to overcome many of the challenges associated with traditional classroom-based instruction. By leveraging platforms like LMSs, video conferencing tools, and language-learning applications, teachers can design engaging tasks that promote learner engagement, motivation, and language proficiency. However, careful planning is required to address issues related to digital literacy, access to technology, and task authenticity. As educational technology continues to evolve, researchers and practitioners need to explore innovative ways to optimize TBL in digital settings, ensuring that learners are well-prepared for real-world communication in the 21st century.

Learning in the Digital Age

The rise of digital tools and platforms has fundamentally transformed education by enhancing access to knowledge, enabling personalized learning, and fostering collaboration across diverse environments. Understanding the impact of these transformations requires situating them within established theoretical frameworks. One such framework is connectivism (Siemens, 2005), which emphasizes the role of networks and connections in modern learning. According to connectivist theory, knowledge is distributed across a network of people, technologies, and resources, and learning occurs through the ability to navigate, manage, and make sense of these networks. Self-directed learning theory (Knowles, 1975) further supports the idea that digital technologies empower learners to take control of their education, choosing what, when, and how they learn. Digital platforms such as Massive Open Online Courses (MOOCs), online communities, and mobile learning apps exemplify these theories by fostering autonomy and lifelong learning opportunities.





Digital tools have had distinct impacts on cognitive, social, and emotional learning domains, enhancing various aspects of student development. Cognitive development is supported through interactive simulations, educational games, and multimedia content that engage learners and promote deeper understanding. Tools such as Khan Academy and virtual laboratories provide hands-on experiences that allow students to explore concepts at their own pace. From a social learning perspective (Bandura, 1977), virtual classrooms, discussion boards, and collaborative platforms like Google Classroom or Padlet foster group interaction, enabling learners to share ideas, provide feedback, and build communities of practice. Furthermore, digital tools contribute to emotional learning by creating supportive environments where learners can practice self-regulation, empathy, and resilience. Applications like MindShift or Headspace integrate mindfulness exercises into students' routines, promoting emotional well-being in digital learning spaces.

Despite these benefits, digital learning also presents challenges, such as information overload and unequal access to technology. Information overload occurs when students encounter an overwhelming volume of resources, making it difficult to discern reliable information (Bawden & Robinson, 2009). Digital literacy programs are essential in equipping students with the skills to navigate and critically evaluate online information. Schools and communities can implement curriculum-based digital literacy frameworks to systematically teach these skills, ensuring students develop the capacity to manage and utilize information effectively. The issue of unequal access—often referred to as the digital divide (Van Dijk, 2020)—remains a significant barrier. Addressing this divide requires institutional efforts, such as infrastructure development, providing low-cost devices, and expanding access to broadband services. Government policies and school-based initiatives can also play a role by establishing public access points and partnerships with technology providers to support underprivileged communities.

The role of teachers in digital learning has evolved from being mere knowledge providers to acting as facilitators, mentors, and guides. As students take on more autonomy, teachers support them in navigating digital environments, offering personalized feedback, and fostering collaborative learning. However, this shift demands significant professional development to ensure teachers are equipped with the skills needed to effectively integrate digital tools into their pedagogy. Teacher training programs focused on educational technology, such as those offered by Google for Education and Microsoft Innovative Educator programs, provide educators with hands-on experience and practical strategies for using digital tools. Case studies of schools implementing flipped classrooms—where students review content online before class and engage in activities during class—demonstrate how teacher roles are redefined to maximize student interaction and problem-solving during face-to-face time (Bergmann & Sams, 2012).





Digital learning environments can take various forms, including blended learning, flipped classrooms, and fully online courses, each offering unique advantages and challenges. Blended learning combines traditional classroom instruction with online activities, giving students flexibility while maintaining in-person interaction. Flipped classrooms reverse the typical instructional model by having students engage with learning materials at home, allowing class time to focus on higher-order tasks such as discussions or problem-solving. Fully online courses offer complete flexibility but may require greater self-discipline and motivation from learners. Empirical evidence suggests that different learning environments work best for specific learners or subjects. For instance, blended models tend to be more effective for younger learners who benefit from both structure and flexibility, while online courses are well-suited for adult learners pursuing professional development or higher education (Means et al., 2014).

Looking to the future, emerging technologies hold the potential to further transform digital learning. Artificial intelligence (AI) can provide real-time personalized feedback, guiding students toward mastery through adaptive learning pathways. Augmented reality (AR) and virtual reality (VR) technologies offer immersive learning experiences, enabling students to explore historical sites or conduct science experiments in simulated environments. Blockchain technology introduces innovative ways to manage educational credentials, allowing students to own and share their learning records securely. These technologies not only enhance current learning experiences but also address challenges such as accessibility by offering scalable, low-cost solutions.

To fully realize the potential of digital learning, policy recommendations are essential for guiding educators, institutions, and policymakers. Schools and universities should integrate digital tools into curricula in ways that align with pedagogical objectives and learning outcomes. Infrastructure development is crucial to ensure equitable access to devices, the internet, and digital content. Additionally, institutions must invest in teacher training and professional development to build educators' capacity for using technology effectively. Governments can play a pivotal role by promoting public-private partnerships to reduce the digital divide and by establishing standards for digital literacy education across all levels of schooling.

In summary, digital tools have redefined how education is delivered, offering new opportunities for cognitive, social, and emotional learning. However, addressing challenges such as information overload, digital literacy gaps, and unequal access is essential to ensure all learners benefit. With thoughtful integration of emerging technologies, professional development for teachers, and equitable policies, digital learning can become a powerful tool for preparing students to thrive in a connected and dynamic world.





Digital Tools in Task-Based Language Learning

The integration of digital tools in Task-Based Language Learning (TBL) offers numerous opportunities to customize learning experiences, enhance engagement, and promote collaboration. However, fully realizing these benefits requires carefully selecting tools that align with individual learners' needs and addressing challenges such as digital literacy and access. This section explores how digital tools can be adapted for personalized learning, introduces emerging technologies like virtual and augmented reality, examines strategies to address digital literacy and the digital divide, and discusses best practices for designing and assessing tasks using digital platforms.

Personalization Through Adaptive Learning Technologies

Digital platforms such as Moodle and Blackboard provide the flexibility to design and deliver TBL tasks asynchronously, but their effectiveness lies in how they can be tailored to meet individual learner needs. Adaptive learning technologies dynamically adjust task complexity based on student performance, promoting engagement by providing tasks that are challenging but achievable. For example, applications like Duolingo and ELSA Speak modify exercises according to the learner's progress, offering more repetition for those struggling with specific concepts and advancing others to more complex tasks. This level of personalization ensures that students across different proficiency levels remain motivated and engaged, enhancing learning outcomes (Thomas & Reinders, 2010).

Emerging Technologies in TBL: Immersive and AI-Driven Tools

While platforms such as Zoom and Google Meet are widely used to facilitate synchronous collaboration, emerging technologies like virtual reality (VR) and augmented reality (AR) offer immersive environments for language learning. VR can create simulations that mimic real-world contexts, such as navigating a marketplace or attending a business meeting, providing students with opportunities to practice language skills in authentic settings. Similarly, AR overlays digital content onto physical spaces, allowing students to interact with learning materials contextually, such as identifying labeled objects in their environment (González-Lloret & Ortega, 2014).

AI-powered chatbots also offer potential for TBL by providing interactive speaking practice through simulated conversations, offering immediate feedback. For instance, AI-integrated applications like Rosetta Stone's chatbot interface enable learners to practice spontaneous dialogue in a low-pressure environment. Additionally, AI tools support automated assessment, enabling teachers to use learning management systems (LMS) to track student performance through analytics dashboards, identify areas for improvement, and offer targeted feedback. These technologies have the potential to enhance TBL by making learning more interactive, accessible, and responsive to individual needs.





Developing Digital Literacy in TBL

Students must possess digital literacy skills to effectively engage with the tools used in TBL. Developing these skills involves more than familiarity with technology; it requires the ability to critically evaluate information, collaborate online, and use digital tools to achieve learning goals. Pre-task activities can help familiarize students with required platforms, such as assigning introductory tasks where students upload documents to Google Drive or participate in discussion forums on Moodle. Offering digital literacy training integrated into course curricula further ensures students are well-prepared to navigate the platforms and tools effectively (Redecker & Punie, 2017). Providing access to tutorials, guides, and help desks can also enhance students' competence and confidence in digital learning environments.

Addressing the Digital Divide and Ensuring Inclusivity

Despite the many advantages of digital tools, unequal access to technology remains a significant barrier to TBL. The digital divide affects learners with limited access to high-quality devices, reliable internet, or suitable study environments (Van Dijk, 2020). To address these challenges, educators can design tasks that accommodate varying levels of connectivity by incorporating low-bandwidth applications such as WhatsApp or Telegram and providing offline access to learning materials. Hybrid models, where some students engage in digital tasks and others use paper-based alternatives, can also promote inclusivity. For example, teachers can assign offline tasks that are later discussed during in-person or online sessions, ensuring all students have the opportunity to participate (Bawden & Robinson, 2009).

Designing Effective TBL Tasks Using Digital Platforms

Designing effective TBL tasks requires a careful alignment between task objectives and the appropriate digital tools to support them. For instance, synchronous tools such as Zoom and Microsoft Teams are ideal for collaborative tasks that require real-time interaction, such as role-plays or group discussions, while asynchronous platforms like Blackboard are better suited for reflective tasks like journal writing or peer feedback. Scaffolding complex tasks through LMS platforms helps students manage their workload by breaking assignments into smaller, manageable steps with clear instructions and deadlines (Almarashdeh et al., 2011). Tools such as Google Docs and Padlet facilitate collaboration by enabling students to co-create documents, share ideas, and provide peer feedback, promoting teamwork and critical thinking.

Case Studies of Successful TBL Implementation Using Digital Tools

Empirical studies highlight the positive impact of digital tools on TBL. A pilot study conducted during the COVID-19 pandemic in Thailand used Zoom to facilitate real-time role-playing activities, significantly improving students' speaking skills and boosting their confidence. Similarly, a case study from a South Korean university employed Trello and Google Docs in





project-based language learning, demonstrating how these tools enhanced students' teamwork, critical thinking, and language proficiency (Dede, 2005). These examples underscore how well-chosen digital tools can create meaningful learning experiences, promoting both engagement and skill development

Using Digital Tools for Formative Feedback

Assessment in TBL extends beyond summative evaluations, focusing on continuous formative feedback that supports learning. Digital tools enable teachers to provide timely feedback, track progress, and adapt instruction as needed. For example, Moodle and Blackboard offer analytics tools that allow educators to monitor student participation, identify challenges, and provide personalized feedback. Collaborative platforms like Google Docs and Padlet also facilitate peer feedback, giving students opportunities to reflect on their work and learn from their peers (González-Lloret & Ortega, 2014). Combining teacher feedback, peer evaluations, and automated responses ensures that students receive comprehensive support throughout the learning process.

Conclusion

Digital tools offer unprecedented opportunities to enhance TBL by making language learning more interactive, personalized, and accessible. Emerging technologies like VR, AR, and AI further expand the potential for immersive learning experiences and responsive assessments. However, successful integration requires more than just access to technology; it demands careful task design, digital literacy development, and strategies to bridge the digital divide. By thoughtfully selecting tools that align with task objectives, providing personalized feedback, and promoting inclusive practices, educators can create dynamic TBL environments that prepare students for real-world communication. As digital learning continues to evolve, ongoing research and innovative practices will be essential to fully harness the potential of digital tools in language education.



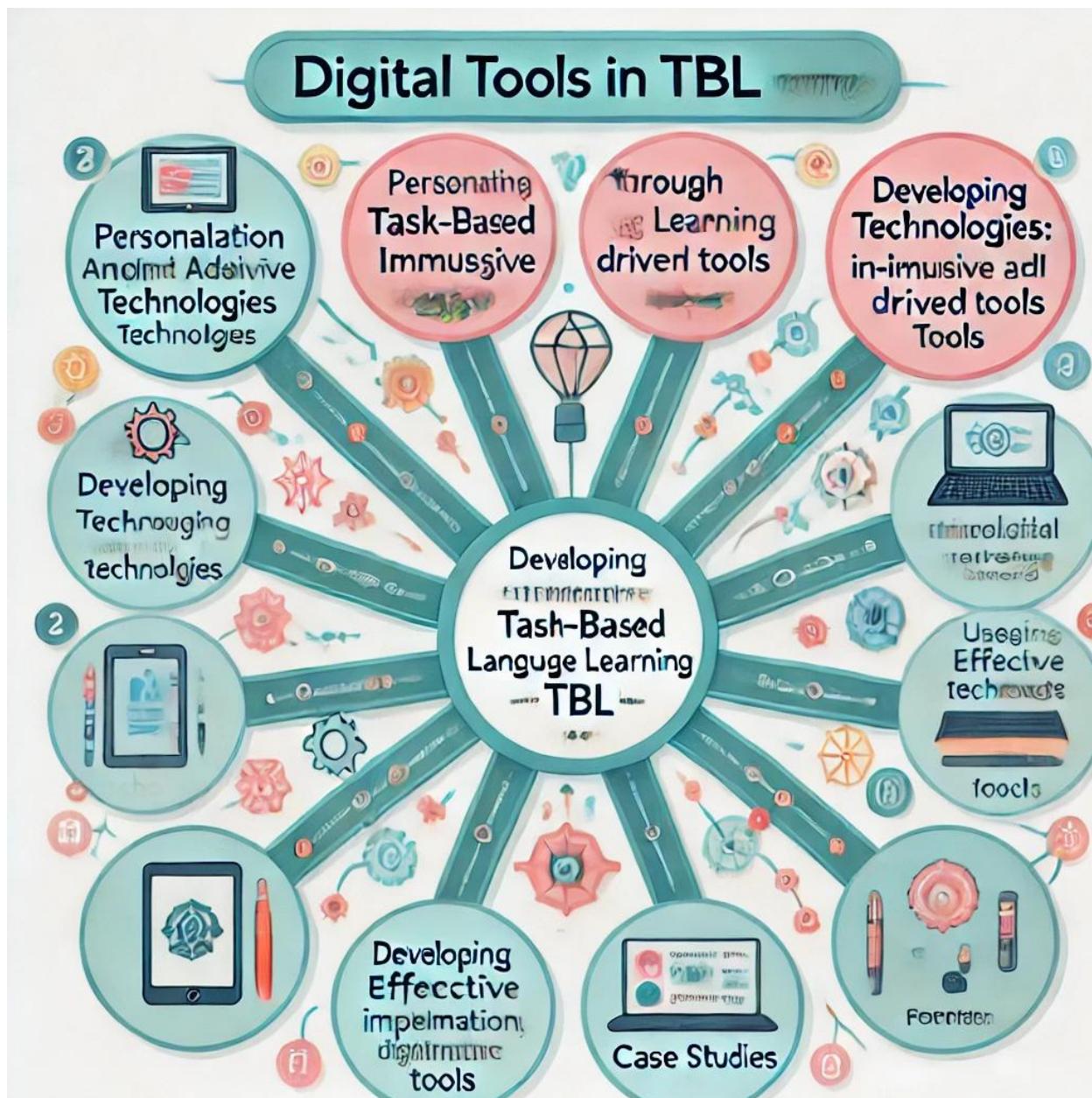


Figure 1 Digital Tools in Task-Based Language Learning



Pedagogical Considerations for Implementing Digital TBL

Task Design

Effective task design in digital TBL involves creating activities that mirror real-world scenarios and align with learners' proficiency levels. For beginners, tasks such as virtual shopping—where students practice selecting items and placing orders online—provide a practical introduction to everyday language. Similarly, ordering food via a simulated restaurant menu on tools like Google Forms helps reinforce essential vocabulary and conversational structures. For advanced learners, more complex tasks like developing a digital marketing strategy for a fictional business encourage problem-solving and collaboration. This project can be implemented using Google Workspace tools such as Docs, Sheets, and Slides, where students co-create marketing plans and present them via Google Meet or Flipgrid. Step-by-step guidelines ensure structured task design:

- 1) Introduce task objectives and provide relevant vocabulary.
- 2) Assign roles within teams to encourage collaboration (e.g., product designer, marketing lead).
- 3) Use Google Workspace for brainstorming, content creation, and feedback exchange.
- 4) Conclude with team presentations using video tools like Flipgrid.

This approach ensures that tasks are meaningful and aligned with learners' real-world needs, promoting language proficiency at every level (González-Lloret & Ortega, 2014; Thomas & Reinders, 2010).

Scaffolding through AI-Driven Tools

Scaffolding plays a crucial role in supporting learners during task completion, and AI tools offer real-time, personalized assistance. AI-powered chatbots integrated within platforms such as Moodle can provide immediate feedback on common errors and suggest exercises tailored to individual needs. Adaptive applications like ELSA Speak or Grammarly help learners focus on areas of difficulty by offering targeted tasks based on their performance. For example, if a student frequently mispronounces certain words, the platform can generate specific pronunciation tasks to reinforce learning. These technologies enable teachers to provide differentiated support, ensuring all learners receive the help they need to complete tasks effectively (Redecker & Punie, 2017).

Fostering Meaningful Communication through Digital Tools

Digital tools facilitate meaningful interaction beyond the classroom. Virtual exchange programs and language partner platforms such as Tandem and HelloTalk connect students with peers and native speakers worldwide, promoting intercultural competence and language acquisition. Through synchronous conversations on Zoom or asynchronous exchanges in discussion forums, learners practice real-world communication. Immersive technologies such as virtual reality (VR) and augmented reality (AR) simulate realistic scenarios where students can practice language. For example, learners might navigate a virtual city, order food at a virtual café, or participate in a simulated business meeting, reinforcing situational language use in engaging contexts (Dede, 2005; González-Lloret & Ortega, 2014).

Assessment through Digital Platforms





Assessment in digital TBL benefits from diverse tools that support both formative and summative evaluation. Digital portfolios on platforms such as Google Drive or Seesaw allow students to upload work, reflect on progress, and receive feedback, providing a comprehensive view of their development. Peer and self-assessment tools integrated within Moodle or Blackboard encourage students to evaluate their own and peers' work, fostering critical thinking and metacognitive skills. Teachers can also use video submissions on Flipgrid to assess speaking skills, enabling students to reflect on their performance and progress. Interactive quizzes with instant feedback provide additional opportunities for self-assessment, helping students monitor their learning throughout the task cycle (Almarashdeh et al., 2011).

Addressing Challenges in Digital TBL

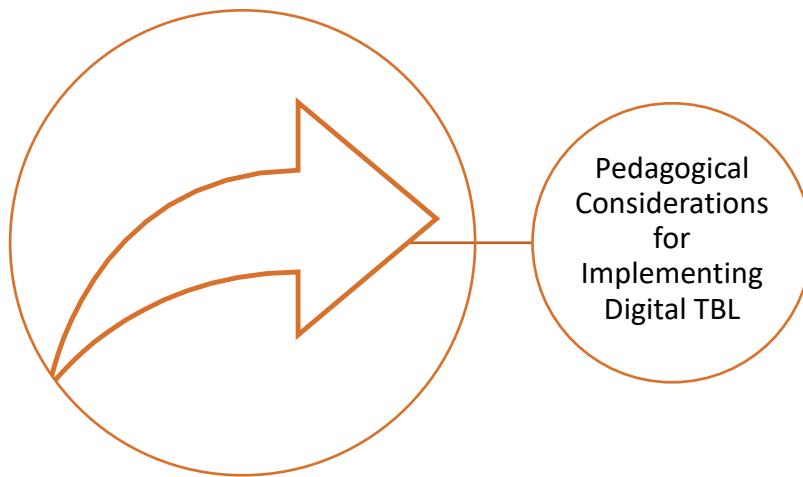
Digital literacy and access to technology remain significant challenges in digital TBL. Teachers can implement digital orientation sessions at the start of the course to familiarize students with the tools and platforms they will use. These sessions could include tutorials on Google Classroom, Zoom, and Google Docs, ensuring students are comfortable with the tools before engaging in tasks. For students with limited access to technology, teachers can provide offline alternatives, such as paper-based assignments or mobile-friendly tasks that can be completed without internet access. Hybrid models allow students to work offline and submit tasks via messaging apps like WhatsApp when connectivity permits. Schools and educators can also advocate for institutional support by requesting additional technological resources, such as device lending programs, to ensure equitable access (Van Dijk, 2020).

Teacher Training and Professional Development

Effective implementation of digital TBL requires teachers to be proficient in both digital tools and task design. Professional development programs, such as workshops on digital pedagogy or collaborative planning sessions, help teachers build confidence and competence. Programs like Google for Education or Microsoft Innovative Educator provide structured training on how to integrate technology effectively into TBL. Peer observation programs, where teachers share best practices and offer feedback, also foster continuous improvement. These opportunities ensure teachers are well-prepared to design and facilitate tasks that align with learning objectives and promote meaningful engagement (Bergmann & Sams, 2012).

Conclusion: The successful implementation of digital TBL requires careful task design, personalized scaffolding, meaningful communication, diverse assessment methods, and strategies to address challenges. AI tools offer real-time feedback, virtual exchange programs promote intercultural competence, and immersive technologies like VR and AR create engaging learning experiences. Digital portfolios, peer assessments, and video submissions provide holistic evaluation methods, supporting both formative and summative assessments. Addressing digital literacy gaps through orientation sessions and advocating for institutional support ensures inclusivity. Professional development opportunities equip teachers to effectively integrate technology into TBL, creating dynamic learning environments that prepare students for meaningful communication in the digital world.





- Task Design
- Scaffolding through AI-Driven Tools
- Fostering Meaningful Communication through Digital Tools
- Assessment through Digital Platforms
- Addressing Challenges in Digital TBL
- Teacher Training and Professional Development

Challenges of Digital Task-Based Language Learning

While digital tools offer numerous benefits, several challenges must be addressed to ensure the effective implementation of task-based language learning (TBL). Key challenges include digital literacy, unequal access to technology, information overload, and maintaining task authenticity in virtual environments. Educators need practical strategies to overcome these obstacles, ensuring all students can participate meaningfully in TBL activities.

Digital Literacy

Not all learners possess the necessary digital skills to navigate learning platforms and use digital tools effectively, which can hinder participation and engagement (Van Dijk, 2020). Teachers can address this by implementing digital orientation sessions at the beginning of the course, introducing students to the required platforms such as Moodle, Google Classroom, and Google Docs. These sessions can include hands-on activities that allow students to practice logging in, uploading assignments, and using collaborative tools. Additionally, offering ongoing digital literacy support throughout the course, such as access to tutorials and help desks, ensures students feel confident and capable in using digital tools for learning. Teachers can also embed digital literacy into task activities by assigning tasks that require learners to search for information online, manage digital content, and collaborate through digital platforms.

Access to Technology

Unequal access to technology remains a significant barrier, with some students lacking reliable internet, devices, or quiet study spaces (Bawden & Robinson, 2009). Educators can design low-bandwidth tasks using tools like WhatsApp or Telegram to facilitate communication and task submission in areas with limited internet access. Offline options can also be provided, such as downloadable materials and assignments that can be submitted during in-person meetings or through mobile platforms when connectivity is available. Hybrid models, where students complete tasks offline and discuss them online, offer additional flexibility. Schools and educators can further advocate for institutional support, requesting lending programs for laptops or mobile devices and establishing partnerships with technology providers to ensure all students have the tools they need to participate effectively.



Information Overload

The vast amount of information available online can overwhelm students, making it difficult for them to determine what is relevant for task completion (Bawden & Robinson, 2009). Educators can help students manage information by incorporating critical evaluation skills into the curriculum, teaching them how to identify reliable sources and filter unnecessary content. Digital tools like Moodle and Google Classroom allow teachers to curate resources and organize them systematically, providing students with a structured learning path. Additionally, teachers can limit the scope of tasks by setting clear objectives and timelines, helping students stay focused and preventing cognitive overload.

Maintaining Task Authenticity

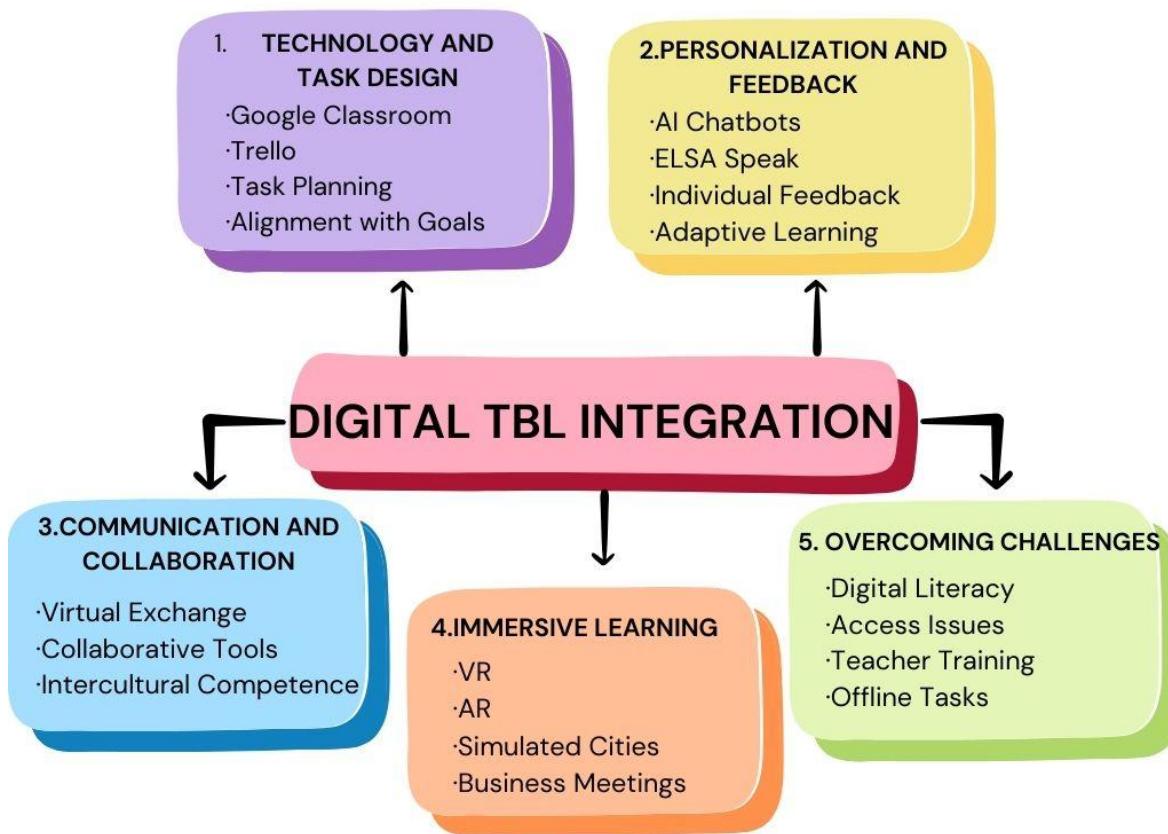
One of the challenges in digital TBL is maintaining the authenticity of tasks, ensuring that activities align with real-world language use. Overly structured digital tasks may limit students' creativity and reduce the effectiveness of language practice. To maintain authenticity, educators can design open-ended tasks that allow students to explore multiple solutions and express themselves freely. For example, students can participate in virtual role-plays where they simulate a business negotiation or order food at a virtual restaurant. Immersive technologies such as virtual reality (VR) or augmented reality (AR) can also enhance authenticity by creating environments that closely resemble real-world scenarios, such as navigating a virtual city or engaging in a simulated customer service interaction (Dede, 2005).

Conclusion: Addressing the challenges of digital TBL requires careful planning and proactive strategies to ensure all learners can participate meaningfully. Teachers can foster digital literacy through orientation sessions and ongoing support while designing low-bandwidth tasks and offline options to address access issues. To prevent information overload, educators must teach students how to critically evaluate online resources and curate materials effectively. Maintaining task authenticity through open-ended tasks and immersive technologies ensures meaningful language use. With thoughtful design and institutional support, digital TBL can overcome these challenges and provide engaging, inclusive learning experiences.

Synthesis of the Overall Findings: Digital TBL Integration

Illustration 1: The synthesis of the TBL in the digital age





The illustration presents a well-organized framework for understanding how digital tools enhance Task-Based Language Learning (TBL) across multiple dimensions. It emphasizes that effective TBL integration requires careful task design, personalized feedback, immersive experiences, collaborative communication, and strategies to address implementation challenges. Below is a detailed synthesis of each component.

Technology and Task Design

Technology serves as the backbone of TBL by supporting task planning, delivery, and collaboration. Tools such as Google Classroom and Trello provide platforms for structuring learning activities, assigning roles, and tracking progress. These technologies help ensure that tasks align with learning objectives and allow students to engage meaningfully with course materials. Trello, for instance, can manage group projects, setting deadlines and task stages, while Google Classroom offers a centralized platform for sharing assignments, facilitating feedback, and encouraging peer collaboration. Task design using these tools promotes student autonomy by giving learners access to instructions, materials, and assessment rubrics, thereby ensuring clarity and purpose in each learning activity.

Personalization and Feedback

Personalized learning is critical in TBL, and digital tools enable teachers to tailor instruction and support based on individual learner needs. AI-powered platforms, such as AI chatbots, provide real-time assistance, offering explanations and additional resources as students encounter challenges during tasks. ELSA Speak, an AI-based language tool, adjusts exercises according to the



learner's pronunciation performance, ensuring targeted practice. Additionally, platforms offer individualized feedback that adapts based on each student's progress. This adaptive learning framework not only improves engagement but also ensures that learners with varying proficiency levels receive the support they need to succeed. Personalized feedback from AI tools reduces teacher workload by handling routine errors, allowing instructors to focus on higher-level guidance.

Communication and Collaboration:

Communication plays a pivotal role in language learning, and virtual exchange programs and collaborative platforms enable learners to engage in meaningful interaction with peers and native speakers. Platforms such as Zoom, Tandem, or Google Meet support real-time discussions, while collaborative tools like Google Docs facilitate teamwork by allowing students to co-create content asynchronously. These interactions not only improve linguistic competence but also foster intercultural skills, helping learners develop the ability to communicate effectively across cultural boundaries. Collaborative activities, such as group debates or project presentations, simulate real-world communication scenarios, enhancing learners' fluency, confidence, and teamwork skills.

Immersive Learning:

Immersive technologies such as Virtual Reality (VR) and Augmented Reality (AR) offer learners the opportunity to practice language in authentic, simulated environments. VR tools can transport learners to virtual cities or business meetings, providing them with practical contexts where they can navigate conversations and scenarios naturally. AR applications overlay vocabulary or grammatical instructions onto physical objects, making the learning experience engaging and memorable. These tools replicate real-world interactions, which enhance language retention and boost learners' ability to use language fluently in practical settings. Immersive learning provides a bridge between theoretical knowledge and real-life application, preparing students for real-world language use in dynamic, unpredictable environments.

Overcoming Challenges:

The mind map highlights several key challenges: digital literacy gaps, access issues, teacher training needs, and the importance of offline tasks. Not all learners possess the digital skills necessary to navigate platforms like Google Classroom or collaborative tools effectively, which can hinder participation. To address this, teachers can provide orientation sessions and digital literacy workshops at the beginning of the course. These initiatives help students familiarize themselves with the tools and build confidence in using them. Access to technology remains a significant barrier, particularly for students with limited internet connectivity or devices. Low-bandwidth applications such as WhatsApp or offline options allow learners to engage with tasks even in resource-constrained settings. Additionally, teacher training is essential to ensure instructors are proficient in both the use of digital tools and task design. Continuous professional development ensures that teachers remain equipped to facilitate TBL activities effectively. Institutions must also offer lending programs for devices and provide adequate support to bridge the access gap, ensuring inclusive participation for all students.





Conclusion and Contribution: This framework emphasizes that successful integration of digital tools in TBL requires more than just technology adoption—it demands alignment between pedagogy, technology, and learner needs. The findings demonstrate that personalized learning paths, collaborative activities, and immersive experiences are critical in enhancing language acquisition. Overcoming challenges such as access barriers and digital literacy gaps ensures that all learners, regardless of their background or resources, can benefit from these advancements. The role of teachers is also pivotal, as effective task design and ongoing feedback contribute to positive learning outcomes. Institutions need to invest in both technological infrastructure and teacher training programs to ensure sustainable implementation.

Ultimately, the knowledge contribution of this research lies in presenting a comprehensive, practical framework for integrating digital tools into TBL. The use of a combination of synchronous and asynchronous tools ensures that students engage actively and receive continuous feedback. By embracing emerging technologies like VR and AI alongside more traditional tools such as Google Classroom and Trello, educators can create dynamic and inclusive learning environments that support real-world communication and lifelong learning. This framework provides actionable insights for both teachers and institutions, offering strategies that can be applied across diverse educational contexts to optimize the potential of TBL in the digital age.

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