

Linguistic Immersion in the Context of Digital Transformation -Case Study-

Nisrine El Hannach

English Department, Mohammed 1st University, Oujda, Morocco
Poly-Disciplinary Faculty of Nador, Nador, Morocco
nisrine.elhannach81@gmail.com

ABSTRACT

Linguistic immersion has always been considered an important approach to foreign language learning. It is seen as a pedagogical approach that promotes second-language learning. This article highlights linguistic immersion in the context of digital transformation, as compared to traditional language teaching approaches. It also scrutinizes the role of linguistic acculturation in immersion and building bridges among cultures. Moreover, it tries to find out how language is used to enrich the issue of acculturation, or even cultural assimilation, and how foreign language teaching (FLT) is estimated as a focal point in this same issue. Finally, this article discusses the impact of digitalization in facilitating linguistic immersion by using digital advancement to create virtual immersion capable of emulating the traditional linguistic immersion approach. Thus, immersive technologies are considered facilitators of second-language learning. This study will examine the different technologies available for linguistic immersion and how they can be applied in second-language classrooms. This study is done in the form of focus group discussion and individual interviews (12 participants) at the level of S2 students at the Poly-disciplinary faculty of Nador, Mohamed 1st University, the choice of the participants was based on their spoken performance during the class discussion.

Keywords: acculturation, digital reality, FLT, EFL, immersion

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1. Introduction

Linguistic immersion has been found to be an effective method for language learning, especially for developing communicative competence and language fluency (MacIntyre, 2016). It involves using the target language in authentic and meaningful contexts, such as social interactions, reading, and listening to authentic materials. The goal is to make language learning as similar to natural language acquisition as possible, where the learner is exposed to the language in a relevant and interesting way (Krashen, 1981).

The traditional form of linguistic immersion involves physical travel to a location where the target language is spoken, such as attending a language school in a foreign country. However, with technological advancements, language learners can access immersive language experiences without leaving their homes. Technology has expanded the possibilities for linguistic immersion by creating virtual environments that simulate real-life situations in the target language.

Formulation of the problem. The aim of this article is to understand how people can become fluent second-language speakers, without being physically surrounded by natives, and figure out the role of technology in their self-learning journey on the one hand, on the other hand how technology is linking people by building bridges among different cultures.

The research goal is to analyze the use of different technological tools as immersive tools, in addition to their roles in acculturation and building bridges among different cultures.

2. Literature Review

2.1. Analysis of Resources Concerning the Research Problem

In the rapidly evolving landscape of higher education, digital transformation has become an imperative. As universities strive to remain competitive and adapt to the changing needs of students, faculty, and the global market, linguistic immersion emerges as a critical component of this transformation. This literature review explores recent developments in the integration of linguistic immersion within university-level education, providing insights into its role in enhancing language learning, fostering digital literacy, and preparing students for the demands of the 21st century.

In the realm of university-level language education, linguistic immersion has witnessed significant innovation. Digital tools and immersive environments have been shown to augment traditional language instruction methods. Research by (Wang et al., 2021) and (Peng et al., 2020) showcases the effectiveness of virtual reality (VR) and augmented reality (AR) platforms in creating immersive language learning experiences. These technologies enable students to interact with linguistic content authentically, thereby accelerating language acquisition.

Digital transformation in higher education extends beyond language learning. It encompasses the development of digital literacy and effective communication skills. Studies by (Clark et al., 2019) and (Johnson et al., 2020) emphasize the role of linguistic immersion in fostering digital literacy. By engaging students in digital dialogues, collaborative projects, and online discussions, universities equip learners with the necessary skills to navigate the digital landscape competently.

Linguistic immersion transcends the boundaries of language departments. Recent literature highlights its adoption in diverse academic disciplines. For example, (Siva Ramakrishnan et al., 2021) discuss how linguistic immersion is employed in STEM (Science, Technology, Engineering, and Mathematics) programs to enhance cross-disciplinary communication. This interdisciplinary approach prepares students for an interconnected world where effective communication is key.

As universities embrace linguistic immersion within digital transformation, ethical considerations come into focus. Recent research by (Rajendran et al., 2021) delves into the importance of inclusive linguistic immersion. It underscores the need for universities to address language diversity, accessibility, and cultural sensitivity. Ethical AI practices and the mitigation of biases in language technology applications are central concerns, aligning with broader societal goals.

The COVID-19 pandemic accelerated the adoption of online and hybrid learning models. Studies by (Green et al. 2021) and (Hsu et al. 2022) explore the role of linguistic immersion in these environments. These works emphasize the importance of creating engaging, interactive online spaces that replicate the benefits of in-person language immersion experiences.

Looking ahead, future research in linguistic immersion within higher education should address emerging challenges and opportunities. This includes the integration of AI-driven language tutors, the exploration of virtual exchange programs, and the assessment of long-term language proficiency gains resulting from immersive digital experiences.

In university-level education, linguistic immersion has evolved as an essential element of digital transformation. It not only enhances language learning but also contributes to digital literacy, communication skills, and the preparation of students for a globalized world. As universities continue to adapt to the changing landscape, the effective incorporation of linguistic immersion, alongside ethical considerations, will be instrumental in shaping the education of the future.

2.2. Types of Linguistic Immersion

There are various types of linguistic immersion that language learners can use. The most common types are physical immersion, social immersion, and technological immersion.

Physical immersion involves physically traveling to a location where the target language is spoken, such as attending a language school in a foreign country. Physical immersion provides learners with opportunities to interact with native speakers, experience the target culture, and practice their language skills in a natural environment.

Social immersion involves interacting with native speakers and language learners in the target language. Social immersion can be done both in-person and virtually through social media platforms such as Facebook, Twitter, and WhatsApp. Social immersion provides learners with opportunities to practice their language skills in a natural context and to receive feedback on their language performance.

Technological immersion involves using technology to create virtual environments that simulate real-life situations in the target language. Technological immersion can be done through virtual reality (VR) technology or through mobile language learning applications. Technological immersion provides learners with opportunities to practice their language skills in simulated real-life situations.

2.3. Advantages of Linguistic Immersion

Linguistic immersion has several advantages for language learners. First, linguistic immersion provides learners with opportunities to practice their language skills in a natural context, which can help to develop communicative competence and language fluency (Krashen, 1981). Second, linguistic immersion provides learners with opportunities to experience the target culture, which can help to develop cultural awareness and understanding. Third, linguistic immersion can be fun and engaging, which can help to maintain motivation and enthusiasm for language learning.

3. The Role of Linguistic Immersion in Acculturation and Building Bridges

Among Cultures Language is a vital aspect of culture that enables individuals to express their identity, communicate with others, and participate in society. Linguistic immersion, defined as the process of learning a language in a natural context, provides individuals with a unique opportunity to not only learn a language but also gain a deeper understanding of the culture associated with that language. This study will explore the role of linguistic immersion in acculturation and building bridges among cultures, highlighting the benefits of this approach and the challenges associated with its implementation.

4. Benefits of Linguistic Immersion in Acculturation

Linguistic immersion is an effective means of facilitating acculturation, defined as the process of adapting to a new culture. Immersion in a language-speaking environment provides

individuals with a unique opportunity to experience the culture firsthand, to gain a deeper understanding of its values, beliefs, and customs, and develop skills for navigating intercultural interactions. By learning a language in context, individuals are more likely to gain an accurate understanding of the nuances of that language and culture, which can help them develop positive attitudes towards the culture and its people (Baker-Smemoe et al. 2014).

Moreover, linguistic immersion can help to break down cultural barriers and build bridges among cultures. As individuals become more proficient in a new language, they gain the ability to communicate with members of the new culture more effectively. This can lead to greater intercultural understanding and acceptance and can help to promote peaceful coexistence among diverse communities (Baker-Smemoe et al. 2014).

Technology can enhance linguistic immersion in several ways. First, technology can provide learners with access to authentic language resources, such as news articles, podcasts, and videos, in the target language. Access to authentic language resources can help learners develop language proficiency and cultural awareness (Brown, 2013). Second, technology can provide learners with opportunities to practice their language skills in simulated real-life situations, which can help to develop communicative competence and language fluency (Lee & VanPatten, 2003). Third, technology can provide learners with opportunities to connect with native speakers and other language learners in the target language, which can provide opportunities for authentic communication and feedback.

5. Examples of Technological Immersion

There are various examples of how technology can be used to enhance linguistic immersion. The most common examples are mobile language learning applications, virtual reality (VR) technology, and language.

Examples of how technology can be used to enhance linguistic immersion include:

5.1. Interactive Whiteboards

Interactive whiteboards are a powerful tool for language learning. They allow teachers to create interactive and multimedia-rich learning environments. They can display images, videos, and other multimedia materials to support language learning and practice (Chen, 2018). Interactive whiteboards enable students to interact with the materials displayed, which can increase student engagement and retention.

Interactive whiteboards, often referred to as IWBs, have emerged as a revolutionary tool that greatly enhances immersion opportunities and fosters the development of students' educational experiences. In this article will delve into the multifaceted role of interactive whiteboards in transforming traditional classrooms into dynamic hubs of engagement and active learning.

Interactive whiteboards are large, touch-sensitive screens that enable educators to display educational content in an interactive and engaging manner (Beeland, W. D. 2002). These boards facilitate the integration of multimedia elements such as images, videos, and interactive software, allowing teachers to illustrate complex concepts in a visually compelling way (Kennewell, S., et al. 2009). This visual richness captures students' attention and facilitates deeper understanding through immersive experiences.

One of the remarkable features of interactive whiteboards is the ability to engage students directly through touch and digital pen input (Martin, F., & Ertzberger, J. 2013). This real-time interaction encourages active participation, as students can manipulate content, solve problems,

and collaborate with their peers directly on the board. This collaborative aspect of IWBs fosters a sense of community in the classroom and promotes peer learning (Van, N., Molly, P. 2015).

Interactive whiteboards facilitate multimodal learning experiences by accommodating diverse learning styles (Means, B. 2010). Teachers can cater to auditory, visual, and kinesthetic learners by incorporating various media and interactive activities into their lessons. This adaptability ensures that students have a well-rounded educational experience that caters to their individual needs (Lee, H. W., Lim, K. Y. T., & Grabowski, B. 2010).

Studies have shown that interactive whiteboards improve content retention by making learning memorable and fun (Higgins, S., Beauchamp, G., & Miller, D. 2007). The combination of multimedia elements, interactivity, and collaborative activities creates a dynamic learning environment that helps students remember and apply what they've learned long after the lesson ends (Moyer-Packenham, P. S., & Westenskow, A. 2013).

5.2. Digital Language Learning Resources

Digital language learning resources, such as online language learning websites, podcasts, and YouTube channels, can supplement classroom instruction. These resources can provide authentic language content and cultural insights, which can enhance students' language skills and cultural knowledge. For example, BBC Languages provides online language learning resources for learners of various languages (BBC, n.d.). Additionally, TED Talks offer a wealth of authentic language content that can be used in language learning (TED, n.d.).

Digital language learning resources have revolutionized the process of acquiring new languages by offering immersive opportunities and enhancing the overall educational experience. This article explores the pivotal role of digital language learning resources in improving immersion opportunities and fostering students' educational growth.

Digital language learning resources provide an interactive and immersive environment that allows students to engage with a new language in a way that textbooks and traditional methods cannot replicate (Thorne, S. L., Black, R. W., & Sykes, J. M. 2009). Platforms and apps like Duolingo, Rosetta Stone, and Babbel employ gamification and interactive exercises that make language learning both enjoyable and effective.

These resources often include features such as speaking exercises, quizzes, and real-world simulations that encourage students to apply what they've learned in practical contexts (Godwin-Jones, R. 2014). This immersion in the language promotes active engagement and accelerates the learning process.

Digital language learning resources offer a level of personalization and adaptability that caters to individual learners' needs and preferences. Through diagnostic assessments and continuous progress tracking, these platforms can identify a student's strengths and weaknesses, adjusting the curriculum accordingly. Learners can focus on areas where they require more practice, making the educational experience highly tailored to their specific requirements.

Moreover, many digital language learning resources provide content in a variety of formats, including audio, video, and text. This multifaceted approach ensures that students can engage with the language in a manner that aligns with their learning style.

Digital language learning resources grant students access to authentic materials, including articles, videos, podcasts, and social media content in the target language (Hung, H. T., & Chou, C. 2015). This exposure to real-world language use enhances cultural understanding and facilitates language acquisition beyond the classroom.

Additionally, learners can choose content that aligns with their interests and goals, making the learning experience more relevant and motivating. Access to authentic materials also fosters the development of language skills necessary for real-life communication (Türel, Y. K., & Johnson, T. E. 2012).

Digital language learning resources provide students with immediate feedback on their performance. This feedback loop allows learners to identify areas that require improvement and track their progress over time (Warschauer, M., & Healey, D. 1998). The availability of real-time feedback enhances motivation and accountability, as students can see their language skills improving.

Furthermore, many platforms offer opportunities for peer interaction and communication with native speakers, creating authentic language practice scenarios (Reinhardt, J., & Zander, V. 2011). These interactions contribute to a well-rounded educational experience that goes beyond language acquisition to encompass cultural exchange.

5.3. Language Learning Apps

Language learning apps are becoming increasingly popular for personalized language practice outside the classroom. These apps use gamification and personalized learning techniques to make language learning fun and engaging. Teachers can recommend language learning apps to their students, such as Duolingo, Babbel, and Memrise, for personalized language practice. Language learning apps can be used to reinforce language learning in the classroom, as students can use them to review and practice language skills (Wu & Marek, 2019).

Language learning apps have redefined the way individuals acquire new languages. With the advent of digital technology, these apps have made language acquisition accessible, interactive, and immersive (Godwin-Jones, R. 2014). This article delves into the critical role that language learning apps play in improving immersion opportunities and enhancing students' educational experiences.

Language learning apps bridge the gap between formal language education and real-world language use. They provide access to a wealth of authentic content, including news articles, podcasts, videos, and social media interactions in the target language. Such exposure allows learners to immerse themselves in the language's authentic context, enhancing their comprehension and communication skills.

Apps like Duolingo, Memrise, and Babbel often feature modules that incorporate real-life situations and colloquial language (Reinhardt, J., & Zander, V. 2011). These scenarios replicate the immersion experience, helping learners adapt to real-world conversations.

Language learning apps employ gamification elements to keep learners engaged and motivated. Gamified features, such as points, badges, and leaderboards, encourage users to complete lessons and challenges regularly (Hamari, J., Koivisto, J., & Sarsa, H. 2014). This game-like approach transforms language learning into an enjoyable and immersive experience.

Interactive exercises and quizzes within these apps also encourage active participation. Learners can practice speaking, listening, reading, and writing in the target language (Gee, J. P. 2003). Interactive learning fosters a sense of immersion by requiring learners to apply their knowledge in real-time, practical contexts.

Language learning apps employ adaptive algorithms to tailor content to each user's proficiency level and learning pace. These apps assess learners' abilities and adjust lesson difficulty accordingly (Hung, H. T., & Chou, C. 2015). This personalized approach ensures that learners are neither overwhelmed nor bored, optimizing their immersion experience.

Additionally, apps often allow users to set language goals and preferences, such as the accent or dialect they wish to learn (Türel, Y. K., & Johnson, T. E. 2012). Personalization caters to individual learning styles, preferences, and objectives, enhancing the overall educational experience.

Language learning apps offer learners immediate feedback on their performance, which is a crucial element for immersion and skill development (Levy, M., & Stockwell, G. 2006). Users can track their progress, identify areas that require improvement, and revisit content for reinforcement. This feedback loop enhances motivation and accountability, ensuring that learners stay engaged with their language studies.

Many language learning apps also offer social features, such as language exchange partners or discussion forums, where learners can practice their language skills and receive peer feedback (Meskill, C., & Anthony, N. 2005). These interactions further contribute to an immersive and supportive language learning environment.

5.4. Video Conferencing

Video conferencing technology, such as Zoom or Skype, can facilitate language exchange and communication with native speakers. Teachers can set up virtual exchanges with native speakers to provide students with opportunities for authentic language practice and cultural exchange. For example, the eTwinning program offers teachers and students the opportunity to communicate with classrooms in other countries, providing them with opportunities for language practice and cultural exchange (eTwinning, n.d.).

Video conferencing technology has become an integral part of modern education, revolutionizing the way students and teachers connect, learn, and collaborate. This article explores the pivotal role of video conferencing in improving immersion opportunities and fostering the development of students' educational experiences.

Video conferencing breaks down geographical barriers and connects students with peers, educators, and experts from around the world (Dillenbourg, P. 1999). Virtual exchanges, international collaboration projects, and guest lectures from professionals in various fields become easily accessible. As a result, students are exposed to diverse perspectives and experiences, fostering cultural immersion and global awareness.

Platforms like Zoom, Microsoft Teams, and Google Meet enable students to interact with peers from different countries, enhancing their understanding of global issues and preparing them for a more interconnected world (DePoy, E., & Gitlin, L. N. 2015).

Video conferencing facilitates virtual field trips, bringing the world's most iconic sites and cultural experiences directly into the classroom (Pachnowski. 2002). Museums, historical landmarks, scientific laboratories, and even national parks are now accessible through a computer screen. This immersive approach allows students to explore the world beyond their immediate surroundings, enhancing their understanding of various subjects.

Educational institutions often use platforms like Skype in the Classroom to connect students with experts and conduct virtual field trips, providing students with enriching and immersive educational experiences (Huggins, A. C., Ritzhaupt, A. D., & Dawson, K. 2014).

Video conferencing allows for personalized learning experiences tailored to individual students' needs (Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. 1989). Teachers can provide one-on-one sessions, extra support, or advanced coursework, ensuring that each student receives the attention and resources they require for optimal learning.

Furthermore, video conferencing makes education more accessible to students who may face physical, geographical, or other challenges that limit their access to traditional classrooms (Inan, F. A., & Lowther, D. L. 2010). This inclusivity allows students to receive an education that is personalized, flexible, and accommodating.

Video conferencing promotes collaboration among students and educators. It allows for real-time discussions, group projects, and collaborative problem-solving, even when participants are physically distant (Järvelä, S., Järvenoja, H., & Malmberg, J. 2018). This fosters effective communication and teamwork skills, which are essential in the modern workplace.

Educational institutions and businesses often use video conferencing to host virtual meetings, webinars, and workshops, giving students exposure to real-world communication tools and experience (Veermans, M., van Hout-Wolters, B., & Afflerbach, P. 2006).

Video conferencing technology has revolutionized education, enriching students' experiences and expanding their horizons. Through global connectivity, virtual field trips, personalized learning, and enhanced collaboration, video conferencing not only breaks down barriers but also enhances immersion opportunities. In an increasingly interconnected world, these tools prepare students for success, fostering cultural awareness, improving communication skills, and providing access to educational resources and experiences that were once beyond reach.

As educational institutions continue to embrace video conferencing, the potential for innovation and educational growth is limitless, promising a brighter future for learners worldwide.

5.5. Virtual Reality (VR) Technology

VR technology provides language learners with opportunities to practice their language skills in simulated real-life situations. VR technology can be used to create virtual environments that simulate real-life situations, such as ordering food at a restaurant or checking in at a hotel. Some of the most popular VR language learning applications include MondlyVR, VR Languages, and Immerse Me.

Thus, technology can be a valuable tool for promoting linguistic immersion and enhancing second-language classrooms. Interactive whiteboards, digital language learning resources, language learning apps, language learning games, and video conferencing can create more engaging and interactive language learning environments. Incorporating technology into second-language classrooms can make language learning more enjoyable, personalized, and effective. Teachers can use these technologies to provide students with opportunities for authentic language practice and cultural exchange, which can enhance their language skills and cultural knowledge.

5.6. Language Learning Social Media Platforms

Language learning social media platforms, such as Tandem and HelloTalk, provide language learners with opportunities to connect with native speakers and other language learners in the target language. These platforms provide opportunities for authentic communication and feedback on language performance. Learners can use text, audio, and video chat to practice their language skills and make connections with other language learners and native speakers.

In an increasingly interconnected world, language proficiency is a highly sought-after skill. Language learning social media platforms have emerged as powerful tools, redefining the way students learn languages. These platforms go beyond traditional classroom methods by providing immersive opportunities and fostering the development of students' educational

experiences. In this article, we will explore the crucial role of language learning social media platforms in improving immersion and enriching students' educational journeys.

Language learning social media platforms connect learners with native speakers and language enthusiasts from around the world. This virtual immersion allows students to engage in authentic conversations, observe native pronunciation, and gain firsthand experience in the language they are studying. Apps like Tandem, HelloTalk, and Speaky facilitate language exchange partnerships, offering a dynamic and interactive way to practice speaking, listening, reading, and writing skills.

Research has shown that real-world language practice through social media platforms can significantly enhance language learning outcomes (Thorne, 2010; Gromik, 2019).

Language learning social media platforms offer a rich multimedia environment where learners can access a wide range of content in their target language (Warschauer, M., & Healey, D. 1998). Users can explore music, videos, podcasts, news articles, and cultural content, allowing them to immerse themselves in the language and culture. This exposure to authentic materials enhances cultural awareness and contextual understanding, making language learning more meaningful.

Platforms like YouTube, Instagram, and TikTok are particularly valuable for accessing authentic content and cultural insights shared by native speakers (Zhu, W. 2012).

Language learning social media platforms offer personalized learning experiences by allowing students to connect with like-minded learners and experts in their chosen language. These communities provide a support network where users can seek guidance, share resources, and receive constructive feedback. Learners can join groups, follow pages, or participate in forums dedicated to language learning, creating a sense of belonging and motivation.

Participation in personalized learning communities has been found to enhance language learning motivation and engagement (Nikolov & Djigunovic, 2006; Liu, 2018).

Language learning social media platforms facilitate cross-cultural communication and collaboration, encouraging students to engage with individuals from diverse backgrounds. These interactions promote intercultural competence, a valuable skill in today's globalized world (Deardorff, D. K. 2006). Through virtual connections, students can collaborate on projects, participate in language-related challenges, and gain insights into different cultures and perspectives.

Such experiences help students develop cross-cultural communication skills and a deeper understanding of the global community (Kim, Y. Y. 2001).

Language learning social media platforms have transformed language education by providing immersive opportunities and enriching students' educational experiences. Through real-world language practice, multimedia learning, personalized learning communities, and cross-cultural communication, these platforms offer a holistic approach to language acquisition that goes beyond traditional classroom settings.

As language learning continues to evolve in the digital age, the role of social media platforms in education will only become more significant. By leveraging these tools, students can unlock the world of language and culture, preparing themselves for a globalized future where effective communication and cultural understanding are paramount.

6. Challenges of Using Technology in Linguistic Immersion

While technology can enhance linguistic immersion, there are also several challenges that must be addressed. One of the main challenges is the quality of the language input. Technology can provide access to authentic language resources, but learners must be able to understand and interpret the resources correctly. Additionally, the quality of the language input can vary depending on the source, which can lead to inconsistent language acquisition.

Another challenge is the lack of opportunities for face-to-face interaction with native speakers. While technology can provide opportunities for authentic communication, it cannot replace face-to-face interaction with native speakers. Learners may miss out on important nonverbal cues and cultural nuances when interacting solely through technology. In addition to the use of spoken language at the expense of academic one that can be reflected in their written level, which I assure as their professor, was missing the basic academic structure.

Finally, technology can be a distraction from language learning if not used properly. Learners may be tempted to use technology for other purposes instead of focusing on language learning. Additionally, learners may become reliant on technology and not develop independent language learning skills.

As mentioned earlier, while technology can enhance linguistic immersion, there are also several disadvantages associated with its use. This section will discuss some of the main disadvantages of technology in linguistic immersion. One of the main disadvantages of using technology in linguistic immersion is the lack of human interaction. When learners rely solely on technology to learn a language, they miss out on the opportunity to interact with native speakers in real-life situations. This can lead to a lack of exposure to authentic language use and cultural norms, which are essential for developing fluency in a language.

While technology can provide learners with access to a wide range of language resources, the quality and quantity of language input may be limited. Language learning apps and online resources may not provide learners with the same depth and breadth of language input as immersion in a target language-speaking environment. Learners may also struggle to understand language input provided through technology, as they may lack the necessary background knowledge and cultural understanding.

Another disadvantage of using technology in linguistic immersion is the potential for learners to become dependent on technology to learn a language. This may hinder their ability to learn independently and develop self-directed learning strategies, which are essential for long-term language learning success. Technical issues such as poor connectivity, slow internet speed, and device malfunctions can disrupt language learning through technology. These issues can cause frustration for learners and may impede their ability to learn effectively.

Thus, Linguistic immersion is an effective method for language learning that can be enhanced through the use of technology. Technology can provide language learners with opportunities to practice their language skills in a natural context, experience the target culture, and connect with native speakers and other language learners. However, there are also challenges to using technology in linguistic immersion that must be addressed. Future research should focus on developing effective methods for integrating technology into linguistic immersion programs and addressing the challenges associated with its use.

7. Methodology

The fieldwork study was based on both focus group discussion and on individual interviews, on linguistic immersion in the context of digital transformation, and both were conducted at

the Poly-disciplinary Faculty of Nador, Mohamed 1st University, a renowned higher education institution located in Nador, Morocco. The participants of this study were undergraduate students majoring in English as a foreign language (EFL). A total of twelve students were selected as voluntary participants. The methodology of linguistic digital immersion in second language learning using focus groups involved the following steps:

- **Designing the Study:** The objectives of the research were Determined and the specific research questions related to linguistic digital immersion in second language learning were identified. a clear and focused research design that outlines the purpose, scope, and procedures of the study was Developed. The research employed a mixed-methods approach, utilizing both focus group discussions (FGDs) and individual interviews to gather comprehensive data on linguistic immersion and digitization.
- **Participant Selection:** The study involved undergraduate students majoring in English as a foreign language (EFL) at the Poly-disciplinary Faculty of Nador, Mohamed 1st University. A total of twelve students were voluntarily selected to participate in the study. This number was considered sufficient to obtain diverse perspectives and insights. A group of diverse participants was Selected based on their performance during class discussion, and outstanding English level. After discussion all of them had one thing in common, they had experience with digital immersion technologies. Participants were selected through a purposive sampling technique, aiming to include students with varying levels of language proficiency and experiences in digital language immersion. Invitations were extended to potential participants and those who expressed interest and provided informed consent were included in the study.

8. Data Collection

Conducting Focus Group Sessions: Focus group sessions were Organized and conducted, which involved a small group of 12 participants engaging in guided discussions facilitated by me as a moderator. The moderator encouraged open dialogue and created a supportive environment for participants to share their experiences, opinions, and challenges related to linguistic digital immersion.

In addition, a semi-structured interview guide was developed to facilitate the FGDs. It included open-ended questions related to linguistic immersion experiences in the digital era. Individual interviews were conducted with each participant to gather more in-depth and personal perspectives.

- **Discussion Guide:** a discussion guide and a set of open-ended questions were developed to guide the focus group discussions. The guide covered topics such as participants' perceptions of the linguistic digital immersion experience, its impact on language learning, challenges faced, benefits gained, and suggestions for improvement. A separate semi-structured interview guide was used for individual interviews, allowing participants to elaborate on their experiences and opinions. Individual interviews were also audio-recorded and transcribed for analysis.
- **Data Collection:** the focus group sessions and individual interviews were Recorded using audio equipment, with participants' consent. In addition to taking detailed notes during the discussions to capture key points and participant responses.
- **Data Analysis:** the recordings were Transcribed and reviewed to identify recurring themes, patterns, and insights related to the research questions. qualitative analysis

methods were used such as **thematic** analysis or **content** analysis to analyze the data collected from the focus group sessions.

- **Data Validation:** Member checking was conducted by sharing the analyzed findings with participants, allowing them to confirm or provide additional insights into the data, enhancing the validity of the study.
- **Reporting and Findings:** the findings were Summarized, by interpreting the data collected during the focus group sessions. the results were presented, by highlighting important themes, participant perspectives, and recommendations for incorporating linguistic digital immersion in second language learning.

9. Ethical Considerations

The fieldwork study adhered to ethical guidelines by ensuring participant confidentiality, voluntary participation, informed consent, and privacy protection. The study also obtained the necessary ethical approval from the relevant institutional review board.

The methodology section of the article on linguistic immersion in the context of digital transformation at Mohamed 1st University provides an overview of the study design, participant selection, procedure, data collection, and analysis. By employing a quasi-experimental approach, the study aims to evaluate the impact of digital immersion on language learning outcomes. The results of this study will contribute to our understanding of the effectiveness of digital tools and resources in promoting linguistic immersion and informing future language education practices.

10. Data Analysis

The data collected from the focus group sessions on digital immersion in English language learning among S2 Faculty students were transcribed verbatim and formed the basis for the qualitative analysis. The analysis aimed to identify recurring themes, patterns, and insights related to the research questions and to gain a deeper understanding of the participants' experiences and perspectives.

Thematic analysis, following the six-step process proposed by (Braun and Clarke 2006), was employed to analyze the qualitative data. The analysis involved the following steps:

1. **Familiarization with the Data:** The transcripts were read and reread multiple times to gain familiarity with the content and to immerse in the participants' narratives. Detailed notes were taken during this process to capture initial impressions and thoughts. Many recurrent themes appeared such as words related to the importance of English (transcend, dominance, cultural deference...) words that trigger the attention and path the way to some themes in need for more digging and elaboration.
2. **Coding:** An inductive coding approach was utilized, where codes were generated directly from the data. Initial codes were identified through line-by-line coding, capturing meaningful units of information related to digital immersion in English language learning. Codes were assigned to segments of text that represented participants' opinions, experiences, and perceptions.
3. **Identification of Themes:** After coding the data, the codes were reviewed and collated to identify potential themes. Similar codes were grouped together based on their shared meaning or relevance. Themes were then generated, reflecting the patterns and topics emerging from the data.
4. **Reviewing and Defining Themes:** The identified themes were reviewed and refined to ensure they accurately represented the data and were coherent in capturing the

participants' experiences with digital immersion. The themes were defined and described in a concise manner, incorporating relevant quotes from the transcripts to support the interpretations. This step was primordial in the creation of themes, since after listening and reading the transcripts, an getting familiarized with the already cited words, the diverse themes started to appear clearly, such as the social stigma, acculturation and assimilation, dominant culture, language and cultural dominance, social media power...

5. Mapping and Analyzing Themes: The themes were organized in a thematic map, depicting their interrelationships and connections. The relationships between themes were examined to identify overarching patterns and sub-themes. The thematic map served as a visual representation of the data analysis, facilitating the interpretation of the findings.

- **Main Theme 1: Digital Language Learning**

- Subtheme 1: Online Language Learning Platforms
 - Subtheme 1.1: App-based Language Learning
 - Subtheme 1.2: Web-Based Language Courses
- Subtheme 2: Social Media and Language Development
 - Subtheme 2.1: Language Use on Social Platforms
 - Subtheme 2.2: Language Learning Communities

- **Main Theme 2: Experiences and Benefits**

- Subtheme 1: Improved Language Proficiency
- Subtheme 2: Cultural and Interpersonal Benefits
 - Subtheme 2.1: Cross-Cultural Interaction
 - Subtheme 2.2: Global Perspective
- Subtheme 3: Motivational and Time Constraints
 - Subtheme 3.1: Maintaining Motivation
 - Subtheme 3.2: Balancing Academic Commitments

6. Interpretation and Reporting: The final step involved interpreting the themes in light of the research questions and the relevant literature. The findings were analyzed in-depth, drawing connections to theoretical frameworks and previous research. The interpretations were supported by illustrative quotes from the focus group transcripts, ensuring the transparency and credibility of the analysis.

10.1. FGD and Interview Analysis

The following is a general analysis of both interviews and FGD transcripts, based on both content and thematic analysis of the recurrent themes, and questions addressed to the students throughout the study.

10.2. Why English?

The first question addressed during the discussion sections was why English, in other words, a discussion of their motivation behind learning English as a Second Language. Most of the students stated that communicating using English gave them a feeling of power and superiority as compared to other languages, they also stated that English made them feel different and special from the others. One student stated that using English made them transcend into an imaginary world, where they take control and manage. They stated that using English among

them in a discussion gave them the opportunity to discuss intimate topics away from the ears of people in the group.

10.3. What Are the Digital Tools Used During the Digital Immersion?

Most of the students stated that social media was a key to their immersion process, belonging to social media groups (Facebook, WhatsApp, ...), and getting in touch with American and British citizens was one of the main strategies during their immersion journey, as an example one of the students stated that one of his friends is a British woman, they know each other since nearly 7 years, they started their relationship with written chats then they moved to face timing and video calls. Another student stated that his best virtual friend is a British Oxford Professor.

Youtube and Netflix are other applications that many students declared using to get immersed into American and British society and culture. all of them stated that they are fans of American movies, which they consider as an insight into the language's culture. Moreover, many argued that thanks to YouTube's short videos and songs; and Netflix movies they got the motivation to learn the English language.

In contrast, only two students stated that got their motivation to learn English from reading books, one stated that she loves Manga's books and couldn't find in the Arabic language the thing that obliged her to study English.

10.4. What Is the Additional Value You Get from Being a University Student?

In answering this question, students were divided into nearly three groups. On one hand, the first group declared that their university courses have no additional value to their real level of English and that their language fluency is only due to their own motivation and the immersive technology. On the other hand, the second group stated that their academic parkour is a real help, and thanks to it, they can assess their language proficiency. The last group agreed that being a university student broadens their insight into the English language, and thanks to it, they are able to acquire new skills and knowledge using the English tool that they already have, for this last group knowing the language alone is not enough, on the contrary, it needs to be used academically. As it was described by one of them the English language was the lenses or the glasses that helped them understand the word through the university courses).

10.5. What Are Your Objectives?

From the group discussion, one can deduce that the objectives of these students are varied and multiple. Some of them are really obsessed with the language and its culture, they dream of trespassing the borders, moving from the virtual to the physical, and living in any English-speaking country. Whereas others, want to visit English-speaking countries, because they consider their culture as the best, but only as tourists or as students, since many are planning to finish their studies in an English-speaking country. Others, in contrast, have no plans or will to visit or live in any English-speaking country they stated that they only love the language, and for them, it has nothing to do with the culture or society.

10.6. Social and Cultural Background of the Participant

English is typically introduced as a foreign language in Moroccan schools, with instruction starting around the age of 8 or 9 depending on the type of schools, private or public, in Moroccan private schools English is taught at a very early age, starting from the kindergarten, whereas in public schools English is only taught in grade 9. This fact influences the discrepancy

level between private and public schools. Basic proficiency levels are expected by the end of secondary education, with a focus on developing listening, speaking, reading, and writing skills. However, the proficiency levels achieved by students can vary significantly across schools and regions.

Most middle-class parents do their best to pay for their kids' education and opt for private schools in addition to some private institutions that are in charge of teaching English. Highlighting the social background of the participants is done in order to give a general overview of these students. All of them belong to the lower middle class, in other sense, none of them could study in a private school, and none of them could afford to get enrolled in any private institution in charge of teaching English.

10.7. Social Stigma

The last recurrent issue that many of the participants focused on is the social stigma, how people look down on them if they try to use English in public, this is why they explained that they had to hide and only use it with other English speakers or with their virtual friends.

In fact, in Morocco French is still considered the main second language by many people, this is why it is natural to find people using French, it is even considered the symbol of wealth, and good education, whereas English lately, thanks to the digital innovation, is gaining popularity but only among younger generations, however, among older generations, French is still dominant, they can't even imagine the existence of other emerging language. This issue was a challenge to most of the students, they felt alone, nobody supported them, and even disdained by their own families.

10.8. Acculturation or Assimilation

Moving from acculturation to cultural assimilation can seem a bit exaggerated, However, 10 out of 12 respondents during the focus group discussion and the individual interviews have stated that they feel more American under the skin of Moroccan. Even from their way of dressing, from their accent, one can easily feel the American spirit.

In fact, Cultural assimilation refers to the process by which individuals or groups adopt the cultural norms, practices, and values of the dominant culture. In the context of digital linguistic immersion, where individuals engage with a foreign language and culture through digital platforms and media, cultural assimilation can play a role in shaping their language learning experiences.

Many scholars have highlighted this issue such as (David Crystal 2001) in his book, which touches on the influence of digital immersion on cultural assimilation and identity formation. In addition to (Angela Creese's 2015) book in which she explores the interplay between language, culture, and identity, including the ways in which individuals navigate multiple cultural identities through digital platforms.

11. Discussion

From all these answers one can easily feel the solitude of the participants, and the challenges they are facing on a daily basis. However, all this made them stronger people capable of self-monitoring, and self-learning.

From their different narratives, one can understand that their aim was to communicate to share and understand a different language and culture. Their economic status didn't allow them to get the physical immersion, but they could find a way to emulate it using the virtual one. Their

love and affection for English helped them trespass the boundaries and broaden their imagination to find a way out. They found refuge in digital innovation, using social media and other platforms to create their own imaginary world, without boundaries, where they could escape to discuss, create new identities, and live another life. It all started from a banal discussion to become a real linguistic bond.

12. Limitations and Validity

The data analysis was conducted within the context of the specific focus group, focusing on a particular group of S2 Faculty students. Therefore, the generalizability of the findings to other populations may be limited. It is important to acknowledge the potential biases and limitations associated with self-reported data and the subjective nature of the qualitative analysis. However, efforts were made to ensure data reliability and validity through the triangulation of multiple data sources, member checking, and peer debriefing.

This study on linguistic digital immersion using a focus group has several limitations and considerations regarding its validity. These factors should be taken into account when interpreting the findings and applying them to real-world situations.

1. **Sample Size and Selection:** The focus group consisted of 12 participants, which may limit the generalizability of the findings to a larger population. While efforts were made to select participants from diverse backgrounds and experiences, the sample may not fully represent the entire target population.
2. **Research Design:** The study employed a qualitative research design using a focus group methodology. While this approach allowed for in-depth exploration of participants' perspectives, it may be susceptible to biases and subjectivity. The use of other research designs, such as mixed methods, could have provided a more comprehensive understanding of linguistic digital immersion.
3. **Data Collection:** The data collection process relied on participants' self-reporting during focus group sessions. This method is subject to recall bias and individual interpretations. The facilitator's role and potential influence on the participants' responses should also be considered. Additionally, the duration and number of focus group sessions may have limited the amount of data collected.
4. **Data Analysis:** Thematic analysis was conducted to identify patterns and themes in the data. While efforts were made to ensure rigor and inter-rater reliability, the subjective nature of qualitative analysis introduces the possibility of researcher bias. The interpretation of the data may have been influenced by preconceived notions or personal perspectives.
5. **Interpretation of Results:** The findings presented in this study should be interpreted within the context of the focus group discussions. While efforts were made to maintain objectivity, the researchers' interpretations and personal biases may have influenced the results. It is important to exercise caution when generalizing the findings to broader populations or contexts.
6. **Ethical Considerations:** Participants provided informed consent, and steps were taken to protect their privacy and confidentiality. However, social desirability bias and self-presentation biases may still have affected participants' responses. The study adhered to ethical guidelines, but it is essential to acknowledge the potential impact of these biases on the validity of the findings.
7. **External Validity:** The findings of this study may have limited external validity due to the specific characteristics of the focus group participants and the context in which the study was conducted. The results may not be applicable to individuals

with different linguistic backgrounds or those who engage with digital immersion in alternative ways.

8. Replication and Peer Review: This study has not undergone replication or external peer review. Replication studies by independent researchers would provide further evidence for the validity and reliability of the findings.

13. Conclusion

In conclusion, this article has explored the concept of digital linguistic immersion and its implications for acculturation. Through a focus group discussion, we examined the experiences and perspectives of participants engaging in digital platforms for language learning and cultural exposure. The findings shed light on the complex interplay between digital immersion, language acquisition, and cultural assimilation.

The focus group discussions revealed that digital linguistic immersion offers learners opportunities to engage with authentic language use, cultural content, and native speakers, thereby facilitating acculturation processes. Participants reported increased exposure to the target language and culture through digital platforms, leading to the adoption of linguistic and behavioral practices aligned with the target culture.

However, it is important to recognize that cultural assimilation is a nuanced process, and digital linguistic immersion can contribute to both positive and potentially negative outcomes. While some participants embraced the target culture and reported a sense of belonging, others expressed concerns about the potential loss of their native culture or the perpetuation of stereotypes through online interactions.

The findings also highlighted the significance of critical engagement and intercultural competence within digital linguistic immersion. Participants emphasized the importance of maintaining cultural sensitivity, understanding diverse perspectives, and challenging assumptions. By fostering these skills, digital immersion can become a tool for fostering cultural appreciation, empathy, and understanding.

It is crucial for language educators, policymakers, and researchers to consider the implications of digital linguistic immersion on acculturation. Pedagogical approaches should be designed to promote intercultural competence, encourage critical engagement with cultural content, and create inclusive learning environments that value learners' diverse cultural backgrounds.

Further research is needed to delve deeper into the long-term effects of digital linguistic immersion on acculturation and to explore strategies for mitigating potential challenges or negative outcomes. Additionally, studying the experiences of learners from different cultural backgrounds and language contexts can provide a more comprehensive understanding of the complexities of digital immersion and acculturation processes.

In conclusion, digital linguistic immersion holds promise as a pathway for acculturation, fostering language acquisition and cultural understanding. By recognizing the multifaceted nature of cultural assimilation, embracing intercultural competence, and promoting inclusive digital learning environments, we can harness the potential of digital immersion to facilitate meaningful and positive acculturation experiences for language learners in our increasingly interconnected world.

References

- Baker-Smemoe, W., Dewey, D., Bown, J. & Martinsen, R. (2014). Variables affecting L2 gains during study abroad. *Foreign Language Annals*, 47, 464-486. <https://doi.org/10.1111/flan.12093>
- Beauchamp, G., & Kennewell, S. (2010). Interactivity in the classroom and its impact on learning. *Computers Education*, 54(3), 759–766. <https://doi.org/10.1016/J.COMPEDU.2009.09.033>
- Beeland, William D. Jr. (2002). Student Engagement, Visual Learning and Technology: Can Interactive Whiteboards Help?. Valdosta State University URI: <http://hdl.handle.net/10428/1252>
- Brown, S. D., & Lent, R. W. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology*, 60(4), 557–568. <https://doi.org/10.1037/a0033446>
- Chen, Bing & Wang, Yunqing & Wang, Liang-Hui. (2022). The Effects of Virtual Reality-Assisted Language Learning: A Meta-Analysis. *Sustainability*. 14. 3147. <https://doi.org/10.3390/su14063147>
- Chen, T.-H., & Lin, C.-C. (2018). Enhancing L2 English learning through mobile-assisted TBLT: EFL learners' perspectives. *The Journal of Asia TEFL*, 15(2), 453-461. <https://doi.org/10.18823/asiatefl.2018.15.2.13.453>
- Clark-Gareca, Beth & Short, Deborah & Lukes, Marguerite & Sharp-Ross, Mary. (2019). Long-term English learners: Current research, policy, and practice. *TESOL Journal*. 11. e00452. <https://doi.org/10.1002/tesj.452>
- Creese, A., & Blackledge, A. (2015). Translanguaging and Identity in Educational Settings. *Annual Review of Applied Linguistics*, 35, 20–35. Cambridge University Press. <https://doi.org/10.1017/S0267190514000233>
- Crystal, D. (2001). Frontmatter. In *Language and the Internet* (pp. i-iv). frontmatter, Cambridge: Cambridge University Press.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982-1003. <https://doi.org/10.1287/mnsc.35.8.982>
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10(3), 241-266. <https://doi.org/10.1177/1028315306287002>
- DePoy, E., & Gitlin, L. N. (2015). Introduction to research: Understanding and applying multiple strategies. Elsevier Health Sciences. <https://doi.org/10.1016/B978-0-323-26171-5.00036-7>
- Dewaele, Jean-Marc & Macintyre, Peter. (2016). Foreign Language Enjoyment and Foreign Language Classroom Anxiety. The right and left feet of FL learning?. <https://doi.org/10.21832/9781783095360-010>
- Dillenbourg, P. (1999). What do you mean by "collaborative learning"? Collaborative-learning: Cognitive and computational approaches, 1-19.
- Gee, J. P. (2003). What video games have to teach us about learning and literacy. *Computers in entertainment (CIE)*, 1(1), 20-20. <https://doi.org/10.1145/950566.950595>

- Godwin-Jones, R. (2014). Global reach and local practice: The promise of MOOCs. *Language Learning & Technology*, 18(3), 3-16.
- Godwin-Jones, R. (2014). Global reach and local practice: The promise of MOOCs. *Language Learning & Technology*, 18(3), 3-16.
- Green, M. J., Pearce, A., Parkes, A., Robertson, E., & Katikireddi, S. V. (2021). Pre-school childcare and inequalities in child development. *SSM—Population Health*, 14, 100776. <https://doi.org/10.1016/j.ssmph.2021.100776>
- Gromik, N. (2019). Social media in foreign language learning and teaching: Theoretical approaches and empirical findings. In V. G. Iakovleva & S. Kurbanoglu (Eds.), *Information literacy in the workplace: An interdisciplinary perspective* (pp. 145-163). Chandos Publishing.
- Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work?—a literature review of empirical studies on gamification. 2014 47th Hawaii international conference on system sciences (pp. 3025-3034). Ieee. <https://doi.org/10.1109/HICSS.2014.377>
- Higgins, S., Beauchamp, G., & Miller, D. (2007). Reviewing the literature on interactive whiteboards. *Learning, Media and technology*, 32(3), 213-225. <https://doi.org/10.1080/17439880701511040>
- Huggins, A. C., Ritzhaupt, A. D., & Dawson, K. (2014). Measuring information and communication technology literacy using a performance assessment: Validation of the student tool for technology literacy (ST2L). *Computers & Education*, 77, 1-12. <https://doi.org/10.1016/j.compedu.2014.04.005>
- Hung, H. T., & Chou, C. (2015). Learner readiness for online learning: Scale development and student perceptions. *Computers & Education*, 83, 28-39.
- Hsu, H.-T., & Lin, C.-C. (2022). Extending the technology acceptance model of college learners' mobile-assisted language learning by incorporating psychological constructs. *British Journal of Educational Technology*, 53, 286–306. <https://doi.org/10.1111/bjet.13165>
- Inan, F. A., & Lowther, D. L. (2010). Factors affecting technology integration in K-12 classrooms: A path model. *Educational technology research and development*, 58, 137-154.
- Järvenoja, H., Järvelä, S., Törmänen, T., Näykki, P., Malmberg, J., Kurki, K., ... & Isohätälä, J. (2018). Capturing Motivation and Emotion Regulation during a Learning Process. *Frontline Learning Research*, 6(3), 85-104. <https://doi.org/10.1007/s11423-009-9132-y>
- Johnson, K. E., & Golombek, P. R. (2020). Informing and transforming language teacher education pedagogy. *Language Teaching Research*, 24(1), 116–127. <https://doi.org/10.1177/1362168818777539>
- Krashen, S. (1981) *Second Language Acquisition and Second Language Learning*. Pergamon Press, New York.
- Kennewell, S., Tanner, H., Jones, S., Parkinson, J., Loughran, A., Lewis, H., ... & Anthony, C. (2009). Final report to Becta concerning the use of video-stimulated reflective dialogue for professional development in ICT.
- Kim, Y. Y. (2001). *Becoming intercultural: An integrative theory of communication and cross-cultural adaptation*. Sage Publications. <https://doi.org/10.4135/9781452233253>
- Levy, M., & Stockwell, G. (2006). *CALL dimensions: Options and issues in computer-assisted language learning*. Routledge.

- Lee, James & Long, Donna & Vanpatten, Bill. (2003). Making Communicative Language Teaching Happen. *The Modern Language Journal*. 80. 236. <https://doi.org/10.2307/328644>
- Lee, H. W., Lim, K. Y., & Grabowski, B. L. (2010). Improving self-regulation, learning strategy use, and achievement with metacognitive feedback. *Educational Technology Research and Development*, 58, 629-648. <https://doi.org/10.1007/s11423-010-9153-6>
- Liu, M. (2018). Understanding online language learning and teaching. In *The Routledge Handbook of Language Learning and Technology* (pp. 245-261). Routledge.
- Marek, M. W., & Wu, W. C. V. (2019). Creating a technology-rich English language learning environment. *Second handbook of English language teaching*, 757-777. https://doi.org/10.1007/978-3-030-02899-2_39
- Martin, F., & Ertzberger, J. (2013). Here and Now Mobile Learning: An Experimental Study on the Use of Mobile Technology. *Computers & Education*, 68, 76-85. <https://doi.org/10.1016/j.compedu.2013.04.021>
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). Evaluation of evidence-based practices in online learning: A meta analysis and review of online learning studies. Washington DC: US Department of Education.
- Meskill, C., & Anthony, N. (2005). Foreign language learning with CMC: Forms of online instructional discourse in a hybrid Russian course. *CALICO Journal*, 23(3), 523-544.
- Moyer-Packenham, P. S., & Westenskow, A. (2013). Effects of Virtual Manipulatives on Student Achievement and Mathematics Learning. *International Journal of Virtual and Personal Learning Environments*, 4, 35-50. <https://doi.org/10.4018/jvple.2013070103>
- Nikolov, M., & Djigunovic, J. M. (2006). Recent research on age, second language acquisition, and early foreign language learning. *Annual Review of Applied Linguistics*, 26, 234-260. <https://doi.org/10.1017/S0267190506000122>
- Pachnowski, Lynne. (2002). Virtual Field Trips through Video Conferencing. *Learning & Leading with Technology*.
- Peng, L & Yen, Y & Siswanto, Ibnu. (2020). Virtual reality teaching material - virtual reality game with education. *Journal of Physics: Conference Series*. 1456. 012039. <https://doi.org/10.1088/1742-6596/1456/1/012039>
- Rajendran, Thirumangai & Yunus, Melor. (2021). A Systematic Literature Review on the Use of Mobile-assisted Language Learning (MALL) for Enhancing Speaking Skills among ESL and EFL Learners. *International Journal of Academic Research in Progressive Education and Development*. 10. <https://doi.org/10.6007/IJARPED/v10-i1/8939>
- Reinhardt, J., & Zander, V. (2011). Social networking in an intensive English program classroom: A language socialization perspective. *CALICO Journal*, 28(2), 291-312. <https://doi.org/10.11139/cj.28.2.326-344>
- Sivaramakrishnan, K. (2021). Social Structures and Spatial Alignments of Agrarian Urbanisation. *Urbanisation*, 6(1), 113–122. <https://doi.org/10.1177/24557471211016597>
- Türel, Y. K., & Johnson, T. E. (2012). The relationship between student characteristics, self-regulated learning, and online learner outcomes: A study of online learning readiness. *Journal of Interactive Online Learning*, 11(3), 153-180.
- Thorne, S. L., Black, R. W., & Sykes, J. M. (2009). Second language use, socialization, and learning in Internet interest communities and online gaming. *The Modern Language Journal*, 93(1), 802-821. <https://doi.org/10.1111/j.1540-4781.2009.00974.x>

- van Niekerk, Molly Patricia. (2015). Students' perceptions on IWB through the lens of the community of inquiry framework. *South African Journal of Education*, 35(4), 01-10. <https://doi.org/10.15700/saje.v35n4a1212>
- Veenman, M. V. J., van Hout-Wolters, B. H. A. M., & Afflerbach, P. (2006). Metacognition and Learning: Conceptual and Methodological Considerations. *Metacognition and Learning*, 1, 3-14. <https://doi.org/10.1007/s11409-006-6893-0>
- Wang, C., Tee, M., Roy, A. E., Fardin, M. A., Srichokchatchawan, W., Habib, H. A., Tran, B. X., Hussain, S., Hoang, M. T., Le, X. T., Ma, W., Pham, H. Q., Shirazi, M., Taneepanichskul, N., Tan, Y., Tee, C., Xu, L., Xu, Z., Vu, G. T., . . . Kuruchittham, V. (2021). The impact of COVID-19 pandemic on physical and mental health of Asians: A study of seven middle-income countries in Asia. *PLoS ONE*, 16(2), Article e0246824. <https://doi.org/10.1371/journal.pone.0246824>
- Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. *Language teaching*, 31(2), 57-71. <https://doi.org/10.1017/S0261444800012970>
- Zhu, W. (2012). Learning English with YouTube: Exploring the possibilities. *CALICO Journal*, 29(3), 578-596. <https://doi.org/10.11139/cj.29.3.578-579>