Research Article

Exploring the use and impact of digital platforms on Spanish language learning among University of Ghana students

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Abstract

Learning a foreign language requires consistent practice and interaction, which poses a significant challenge for students who lack regular opportunities to engage with native speakers. This study investigates the use of digital platforms to enhance foreign language learning by students. The research explores the extent to which students use tools such as Padlet, Audio Lingua, Fluent Key, and common social media platforms to practice Spanish and connect with other learners and native speakers worldwide. It aims to highlight the benefits and limitations of digital media in foreign language learning and to provide insights into how digital tools can be better leveraged to support language acquisition in educational settings. Through a survey, the study analyses students' online language learning behaviours, preferred digital resources, and the perceived effectiveness of these platforms in enhancing language proficiency and cultural understanding. Findings indicate that while digital platforms provide valuable opportunities for language practice and cultural exposure, there are varying levels of engagement and effectiveness among students.

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Introduction

In an era characterized by the relentless advancement of technology, technology has permeated every facet of human existence, fundamentally reshaping how we acquire knowledge, connect with others, and explore new horizons. This transformative shift has left an indelible mark on the field of education, giving rise to an unprecedented array of opportunities and challenges.

Digital platforms are revolutionizing how languages are taught and learned. Warschauer and Healey (1998) highlighted the transformative potential of computer-assisted language learning (CALL), which can offer interactive and engaging methods to develop linguistic skills. Recent advancements have seen platforms like Padlet, Audio Lingua, and FluentKey become integral to language learning, providing diverse resources tailored to various learning styles (Dudeney & Hockly, 2007). Padlet, for example, facilitates collaborative learning by allowing students to post and share multimedia content (Miller & Putnam, 2015; Rony, 2021). Audio Lingua offers a repository of authentic audio recordings by native speakers, which is crucial for developing listening skills and pronunciation (Graham, 2006). FluentKey utilizes gamified approaches to make language practice more engaging and effective.

Foreign language learners, like students at the University of Ghana learning Spanish and other foreign languages, who do not have the opportunity to interact with the language outside the classroom have been offered an opportunity through technology to connect, practice, and learn outside the classroom. They have the opportunity to create connections and practice with other learners all over the world and even amongst themselves. Digital interactions, while not a substitute for direct contact with native speakers, play a crucial role in exposing students to the diverse cultural and linguistic nuances of the Spanish language.

Despite the availability of these digital tools, the extent to which students leverage them for language learning remains a subject of inquiry. Research indicates that the effectiveness of digital platforms in language learning also depends on how students utilize these tools. Hampel & Stickler (2005) highlights that active and purposeful engagement is key to maximizing the benefits of digital language learning. Therefore, understanding students' language behaviour on digital platforms is essential for developing effective language learning strategies and promoting the use of digital tools in education.

While much research has focused on digital language learning in Western contexts, there is a growing body of work examining its application in African settings. Apata's (2023) exploration of the role of technology in enhancing biliteracy in international languages among Nigerian undergraduates revealed that technology plays a crucial role in enhancing biliteracy in international languages among Nigerian undergraduates. It also suggested the need for more research into the language learning in the African contexts given the dynamicity of the linguistic, technological and political landscape of African countries. These findings suggest more indulgence and investigation in digital media and

technology in language education to highlight the factors impacting students' ability to utilize digital platforms for effective language learning.

The present study aims to fill this gap by investigating the use and impact of digital platforms on Spanish language learning among students at the University of Ghana. It explores the frequency and nature of their online language contact, the digital platforms they utilize the most, and the impact of these platforms on their learning outcomes. The primary objectives of this research are 1) to assess the extent of students' engagement with the Spanish language in the digital sphere; 2) to identify the digital platforms that students mostly utilize for their Spanish language learning endeavours and 3) to highlight the benefits they accrue from their digital engagement.

The current study provides insights into how digital tools can be better leveraged to support language acquisition in this specific educational setting. By examining how students engage with digital platforms, this research aims to provide insights into the effectiveness of these tools in enhancing language learning and to underscore the potential benefits of integrating digital media into language education. It also provides invaluable insights into the interplay between technology, language acquisition, and the evolving role of educators. The findings of this research will provide a compass for educators and learners alike, guiding them toward harnessing the full potential of digital platforms in their pursuit of linguistic excellence.

Foreign language learning in digital age

Foreign language learning as defined by Stern (1983), is the study of a language in an environment where that language is not of dominant use. It has been on the rise with globalization, as increased interconnectedness encourages the learning of multiple languages for diverse purposes, including career advancement, cultural exchange, and personal enrichment (Crystal, 2003; Graddol, 2006). Lots of people around the world are learning new languages for various purposes, responding to the practical demands of a globalized world.

Language and technology have been deeply intertwined ever since the invention of writing some 5,000 years ago. (Chun et al. 2016). The digital age has transformed the landscape of language learning, with digital platforms playing an increasingly prominent role in the acquisition and development of language skills. The integration of technology into language education has opened new opportunities for students to engage with languages in ways that were previously unavailable.

Today's students have access to a multitude of online resources and platforms that offer a rich environment for language learning. This shift has been driven by several factors, including globalization, the ubiquity of the internet, and the emergence of innovative language learning tools. The recent pandemic, COVID 19 is one factor that drove digital learning since in-person communication was restricted. According to Jeong (2023), the onset of the COVID-19 pandemic caused a surge of innovative digital pedagogical

resources which contributed to transformation in the traditional teaching practices of language classrooms in the post-COVID-19 pandemic digital age.

The integration of digital platforms into language learning has been widely studied, revealing numerous benefits. Research has consistently demonstrated the educational advantages of using digital platforms for language learning which include providing flexible learning schedules, progress-tracking tools and feedback, acting as a source of learning motivation and providing access to authentic materials. Digital tools provide access to authentic language materials and interactive experiences that traditional classroom settings may lack (Blake, 2013). For instance, platforms like Padlet and FluentKey offer multimedia resources that cater to various learning styles, enhancing comprehension and retention.

Digital platforms can enhance students' motivation and overall confidence. Baytak et al. (2011) conducted research on the effect of technology on learning which revealed that learners increased their learning through incorporating technology into their classes. It also emphasized that technology made learning interesting and interactive and increased learners' motivation, social interactions, and engagement. Jeong's (2023) study on the impact of integrating social networking services into mobile-assisted language learning (MALL) during the COVID-19 pandemic also revealed that the integration of social networks and MALL could support EFL university students' language learning experience and boost students' motivation and engagement in their learning process. Wu et al., (2014) investigated on how a digital board game set in a task-collaborative platform, a digital learning playground, could improve communicative skills and intrinsic motivation among EFL students in Taiwan, the quantitative data recorded a higher learning performance for the instruction set on the digital learning playground. The qualitative data confirmed that computerized simulation adapted from board games encouraged communication.

Digital platforms can also be used to enhance different language skills. The results from Peregoy, Boyle & Martinez's (2011) study on using technology to improve learners' reading and writing skills indicated that technology tools enhanced learners' reading and writing skills. Ghanizadeh et al., (2015) analyses of different studies on the use of technology in English as a Foreign or Second Language context revealed that using technology in the EFL/ESL context provided an enjoyable environment for students to learn English.

In foreign language learning contexts where learners are not provided opportunities to use language for genuine communication outside the classroom and receive insufficient language input due to the environment, technology could help bridge that gap. Successful language learning requires providing opportunities and engaging learners in authentic communication in the target language (Ghanizadeh et al. 2015) and digital platforms can aid in achieving this success. Thorne and Black (2007) argue that digital platforms provide rich cultural contexts that enhance learners' cultural understanding. Engaging with authentic materials, such as videos, podcasts, and articles, allows students to experience the cultural nuances of the language they are learning. A study

by Byram (1997) emphasized that cultural exposure helps learners develop intercultural communicative competence, which is crucial for effective communication in a foreign language.

Digital platforms can bridge the cultural gap by offering learners access to a wealth of cultural content and cross-cultural interactions (Risager, 2006). Language students have the opportunity to leverage the advantages technology offers in their language learning journey, especially in the foreign language context where there is limited contact with the language outside the classroom. Learners may access information in all languages across borders for free on most social media platforms and immerse themselves virtually in the language and culture through interactive and fun language exercises, online language communities and media consumption.

In the twenty-first century, social media has been widely adopted, with strong enthusiasm among youth (Markwei & Appiah, 2016). There are lots of social media and digital platforms that have seen a lot of subscriptions and usage. These platforms have emerged as powerful tools for language learning. According to Thorne (2010), social media platforms facilitate meaningful interactions and cultural exchanges, which are essential for developing communicative competence. Blattner and Fiori (2009) assert that platforms like Facebook and Twitter can serve as virtual immersion environments, facilitating authentic language use and cultural exchange. These platforms enable learners to interact with native speakers and other language learners, thus enhancing their communicative competence (Mills, 2011). Similarly, a study by Mitchell (2012) found that students using Twitter for language practice showed significant improvements in vocabulary and writing skills.

Technology is of great benefit to foreign language learning; thus, more education and training could be channelled for both learners and instructors alike. However, regardless of the benefits, there are some challenges and disadvantages associated with their effectiveness in producing significant language gains. Godwin-Jones (2015a) emphasizes that while digital tools provide valuable practice opportunities, they may lack the depth needed for advanced proficiency. Furthermore, apps are often designed to teach vocabulary and basic sentence structures but may not cover the complex syntax and conversational fluency required for full language acquisition. Van Deusen-Scholl (2015) argues that although digital platforms offer accessible language learning, the lack of face-to-face interaction can limit exposure to natural language contexts and reduce opportunities for meaningful language use, which is critical in mastering a foreign language like Spanish.

As highlighted earlier, social media platforms such as Facebook, Twitter, Instagram, and more recently, TikTok, provide learners with opportunities to engage with native speakers and authentic content. However, research shows that while social media can support language learning, it comes with significant challenges. Blattner and Fiori (2009) studied the role of Facebook in language learning, noting that while it supports informal interactions with native speakers, learners may struggle with understanding

the informal and sometimes regional language variations typical on social media. For Spanish learners, this can be particularly difficult because of the diversity of dialects and slang across Spanish-speaking regions. Stewart (2015) highlights that social media fosters casual and informal language exposure, which can be helpful but may not align with the academic language often needed in formal settings. Furthermore, the rapid, fleeting nature of social media interactions may inhibit deep learning, as learners might focus more on participation than on internalizing language structures.

Another challenge for learners is the low level of digital literacy which can pose challenges for learners of Spanish as a foreign language, especially those from regions where technology access is limited or uneven. Alam and Imran (2015) discuss how limited digital literacy can hinder the learning experience, as some students may struggle with navigating apps or understanding how to maximize language learning tools effectively. For Spanish learners, this issue is compounded in regions with lower technological penetration, as they might lack consistent access to reliable internet or devices. Kukulska-Hulme and Shield (2008) further argue that low digital literacy affects students' ability to differentiate quality resources from unverified or low-quality content, which is particularly relevant on social media platforms where language content is user-generated and not always reliable.

Additionally, while digital platforms and social media can initially boost motivation due to their novelty and interactive features, sustaining engagement is a significant challenge. Dörnyei and Ushioda (2013) emphasize that while the use of technology can initially captivate learners, long-term engagement often wanes if platforms do not offer a sense of achievement or if learning progress is not adequately tracked. This can be particularly problematic in Spanish, where the complexity of grammar and vocabulary requires consistent practice over time. Reinders and Wattana (2015) suggest that social media-based language learning can lead to distractions, as users might be tempted to browse non-language-related content. The social nature of these platforms can also make it difficult to focus solely on language learning tasks.

There are also the challenges in cultural and contextual learning. Understanding cultural nuances is crucial when learning a language like Spanish, which is spoken across diverse regions with unique linguistic and cultural characteristics. However, digital platforms may lack resources that address these aspects effectively. Byram (1997) discusses the importance of intercultural communicative competence in language learning, stressing that platforms must help learners understand cultural subtleties. In the case of Spanish, this involves understanding regional variations, idiomatic expressions, and cultural references, which can be difficult to convey through generic content on digital platforms. Thorne, Black, and Sykes (2009) argue that while some apps and platforms attempt to integrate cultural components, they often lack the depth needed for learners to fully appreciate the cultural diversity within the Spanish-speaking world. This lack of contextualization can result in misunderstandings and limit the learners' ability to engage authentically with native speakers.

Another challenge associated with using digital platforms and social media for language learning is the potential privacy and data security risks, which can affect students' comfort and willingness to use these tools. Papacharissi (2010) points out that privacy concerns are common on social media, especially with platforms that track and store user data. For language learners, this can be a deterrent, as they may be hesitant to share personal information or engage fully in conversations that could enhance their learning. Benson (2023) addresses data privacy concerns specific to educational apps, noting that some language platforms collect sensitive data, including personal interests and learning progress, which can be sold to third-party advertisers. Such practices can create trust issues and discourage students from engaging fully with the technology.

Also, cognitive overload and multitasking on digital platforms poses a great challenge. Digital platforms often present learners with an overwhelming amount of information and stimuli, which can lead to cognitive overload, particularly for beginners or less digitally savvy learners. Mayer & Moreno (2003) discuss cognitive load theory, explaining that processing multimedia content can overload learners' working memory, thereby hindering learning. Language learners on platforms like Duolingo or Memrise may face difficulty retaining information because of the high volume of new vocabulary and structures presented in short time frames. Sweller et al. (2011) suggest that learners on social media may become easily distracted, as notifications, messages, and other content vie for attention. For Spanish language learners, this is compounded by the need to navigate between different types of linguistic input, which may lead to fragmented learning.

For educators and instructors, Andrei (2017) found that few teachers had the resources and training to use technology in ways that could provide English Learners in the USA with meaningful opportunities for higher order thinking and learning. Hoopingarner (2009) argues that the central argument of the essay was that it is the type of instruction that affects learning outcomes not the medium of instruction. This signifies that the type of instruction is more important than the medium, thus, technology is just a tool. Therefore, it is important to investigate how language students use and benefit from the different types of instruction available with the various digital platforms. It is also important to provide different levels of training for teachers as highlighted by Godwin-Jones (2015b).

The existing literature underscores the potential of digital platforms to enhance language learning through interactive, flexible, and culturally rich environments. While digital platforms and social media offer numerous opportunities for Spanish language learners, they present significant challenges as well. The effectiveness of these tools can be limited by factors like informal language usage, digital literacy gaps, engagement issues, lack of cultural depth, privacy concerns, and cognitive overload. Addressing these challenges requires a balanced approach, with careful integration of digital tools alongside traditional language teaching methods. This study contributes to the body of knowledge by exploring these dynamics within the context of Spanish language learning

at the University of Ghana, offering implications for both educators and policymakers in the region.

Methods

Research design and settings

The research was conducted within the Spanish Section of the Department of Modern Languages at the University of Ghana, which houses around 300 students across different academic levels (from first to final year). The institutional context is relevant as the researcher is affiliated with this section, which facilitated access to the participants and an understanding of their academic environment.

The study employed a convergent parallel mixed methods design. This design was deemed appropriate because it allowed for a comprehensive understanding of students' online engagement with Spanish learning by integrating numeric trends with deeper explanatory insights from open-ended responses.

Participants selection

All students in the Spanish Section across academic levels from first year to final year were eligible to participate, regardless of their Spanish proficiency levels. Out of an estimated population of over 300 students, a total of 90 students responded to the questionnaire. Among these, 81 were female and 9 were male, a distribution that reflects the demographic makeup of the Spanish Section, which is predominantly female according to student records. Participants were selected using a convenience sampling method. This non-probability sampling approach was appropriate for the study due to the researcher's affiliation with the Spanish Section of the Department of Modern Languages, University of Ghana, which allowed for easy access to students within that setting. The selection process was guided by availability and willingness to participate. This made it feasible to gather data quickly and efficiently within a limited timeframe, especially since the questionnaire was administered online.

Measures

Readers need to know how each of the variables in your study were measures. Which specific questions were asked and how were they scored. Information on which questions were asked for the qualitative phase should be mentioned here as well. The data collection instrument was a structured online questionnaire designed to assess students' online learning behaviours and digital literacy in relation to Spanish language acquisition. The questionnaire was composed mainly of close-ended questions, complemented by a few open-ended questions to gain deeper insights into individual experiences. The questionnaire covered the following themes such as frequency and duration of online Spanish learning (e.g., "How many hours per week do you spend learning Spanish

online?"), digital platform usage (e.g., "Which of the following platforms do you use to study Spanish? WhatsApp, YouTube, Duolingo, etc.") and nature of engagement (e.g., "Do you communicate with other Spanish learners online?"; "Do you read or post Spanish content online?"). These questions were scored using either dichotomous variables (Yes/No), multiple-choice options, or Likert-type scales (e.g., frequency of use: Never, Rarely, Sometimes, Often, Always). The open-ended questions included prompts such as: "In what ways has using online platforms helped or hindered your learning of Spanish?" and "What challenges do you face when learning Spanish online?" These responses aimed to elicit students' perceptions and narratives about their digital learning experiences.

Procedure for data collection

An online questionnaire was created using Google Forms, ensuring both quantitative and qualitative questions were included. The link to the questionnaire was distributed through multiple channels: the Spanish Section's mailing list, bulk email, and class WhatsApp groups. Before proceeding with the questionnaire, respondents were required to read a consent statement and indicate agreement to participate voluntarily. They were assured of anonymity and were informed that no personal identifiers (names, emails) would be collected. Data collection occurred over a one-month period, during which responses were automatically recorded in a linked Excel spreadsheet. Once the collection period ended, all responses were reviewed and cleaned for analysis.

Data analyses

The close-ended responses from the questionnaire were analysed using descriptive statistics. Data was exported from Google Forms into Microsoft Excel and then into SPSS for processing. Frequencies and percentages were calculated to describe patterns in online engagement behaviours, digital platform usage, and participant demographics. Results were presented using tables and bar charts to enhance visual interpretation. The open-ended responses were analysed using content analysis, a method that allows for systematic coding and categorization of textual data to identify the presence of certain words, phrases, or concepts. Responses to open-ended questions were read multiple times to gain an overall sense of the data. Key words and phrases were manually extracted and grouped into predefined categories based on the research questions (e.g., perceived benefits of online learning, challenges faced, types of digital tools used). Responses were then tallied according to these categories to identify commonalities and patterns across participants. The frequency of content occurrences was considered to assess which themes were most prominent in the participants' responses. Quotations were selected to illustrate typical or insightful comments. The qualitative findings were then combined with the quantitative results to enrich interpretation and explain patterns in greater depth. This approach provided both numerical insights and contextual explanations regarding how students engage with digital tools in learning Spanish.

Results and discussion

Online presence and social media usage

To achieve the first objective of the research, which is to assess the extent of students' engagement with the Spanish language in the digital sphere, the overall online presence of students, the amount of time students spend online daily and social media usage were analysed. A significant portion of respondents fall within the range of 3-6 hours per day, with 49 individuals, or approximately 54.4% of the total respondents indicating they spend this amount of time online. 32.2%, reported spending an average of 5-6 hours online a day. Another substantial group, consisting of 25% of the total respondents, spends more than 6 hours online each day, with 11 individuals (12.2%) spending more than 10 hours. The remaining 33.3% of respondents spend less than 3 hours online daily, with 10 individuals (11.1%) dedicating 1-2 hours and 4 individuals (4.4%) spending 9-10 hours online. The range of hours spent online each day varies considerably among the respondents. This variability could be due to individual preferences, lifestyles, study requirements, and the role of social media in their personal lives.

The fact that over half of the respondents spend between 3-6 hours daily on social media or online suggests that for many, as suggested by Godwin-Jones (2017) smartphones are life partners and these digital platforms play a substantial role in their daily lives. Spending more than 6 hours online each day, as indicated by a quarter of the respondents, may raise concerns about productivity, digital well-being, and screen time management. With this level of daily engagement, individuals have the opportunity to consume a significant amount of information, including news, entertainment, educational content, and social interactions.

With respect to social media platforms preferences and usage the findings from this study as demonstrated in *Figure 1* align with research highlighting the prominence of certain social media platforms among diverse demographics. For example, recent research by the Pew Research Centre (2022) demonstrates that WhatsApp and YouTube are top choices globally for communication and video sharing, resonating with this study's findings where WhatsApp (95.6%) and YouTube (83.3%) were highly favoured. The findings of Li's (2017) study of the use of social media for English language learning also found YouTube and WhatsApp as the most popularly used tools among students. Similarly, Snapchat's popularity among younger users (71.1% in this study) is supported by research from the Digital 2023 Report by We Are Social and Hootsuite, which underscores Snapchat's role as a key platform for multimedia messaging among teens and young adults.

Platforms like Instagram, TikTok, and Telegram also saw significant use (68.9%, 61.1%, and 60%, respectively) in this study, reflecting trends highlighted in a GlobalWebIndex (GWI) report, which identifies Instagram and TikTok as major hubs for short-form, visually engaging content. GWI (2023) reports that these platforms continue to grow in popularity for self-expression and cultural engagement, especially among Gen Z and

millennials. Conversely, the lower usage of Twitter, Facebook, and LinkedIn (25.6%, 22.2%, and 18.9%, respectively) mirrors the findings in Pew's 2022 report on social media, which observes that these platforms are often seen as more niche, attracting specific interest groups rather than broad personal use.

Additionally, the fact that all respondents use at least one platform echoes findings from the 2023 Digital Report, which underscores that social media has become nearly ubiquitous, with nearly all internet users actively engaged on at least one platform. This suggests social media's integral role in everyday interactions and the significance of platform choice as a reflection of user priorities and preferences.

What social media platforms or websites do you use?
90 responses
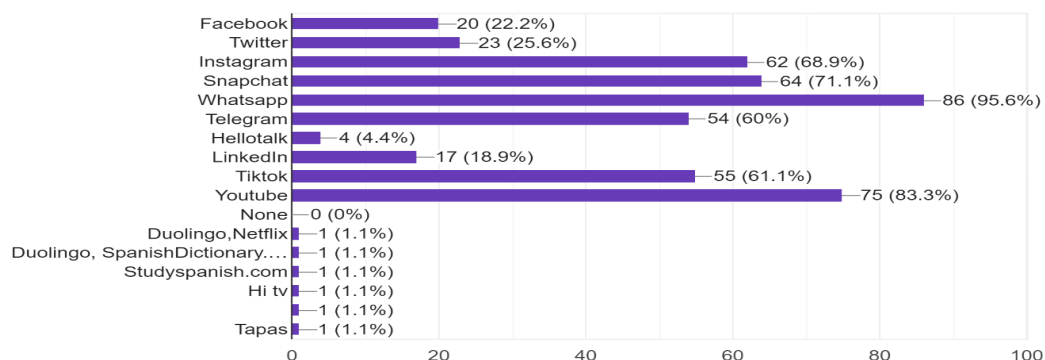
Figure 1: Platforms frequently used by respondents.

Social media for language learning and engagement

With the amount of time students spends online and the wide use of various social platforms, it is interesting to find 72 respondents representing 80% indicate that they read and post Spanish content through social media. As shown in *Table 1,* engagement with Spanish content remains high (above 75%) across most time ranges, especially at lower and moderate usage levels. A notable decrease in engagement occurs in the 7-8 hours range, where only 57.1% read and post Spanish content, showing the lowest engagement in the data. At both the lowest usage level (less than an hour) and the highest (9-10 hours) range, all participants engage with Spanish content (100%). This data suggests that moderate usage generally corresponds to high engagement with Spanish content, but there may be a drop in engagement among those using social media for longer stretches of 7-8 hours.

Table 1: Number of hours spent online against reading and posting Spanish content

Hours spent on social media/online a day	Do you read and post Spanish content	
	Yes	No
less than an hour	2 (100%)	0
1- 2 hours	9 (90%)	1 (10%)
3-4 hours	15 (75%)	5 (25%)
5-6 hours	25 (86.2%)	4 (13.8%)
7-8 hours	8 (57.1%)	6 (42.9%)
9-10 hours	4 (100%)	0
more than 10 hours	9 (81.8%)	2 (18.2%)

With WhatsApp being the most used social media platform, 51 respondents (56.7%) indicated that they use WhatsApp to post and read Spanish content. YouTube, Instagram, and TikTok with 30%, 26.7%, and 25.6% usage respectively are also commonly used to post and read Spanish content. This suggests that although these platforms were not specifically designed for language learning, they can be used as a tool to enhance language learning and interaction. It also indicates that, students have knowledge on the possible use of these platforms for learning, thus, it will be relevant for instructors to also explore how they can incorporate and encourage their use in language learning.

Students engage with Spanish in different ways as represented in *Figure 2*. As mentioned earlier, 72 students (80%) read and post Spanish content online whiles 87 (96.7%) use social media platforms to learn Spanish. However, even though 51 (56.7%) indicated using WhatsApp to post and read Spanish content online, only 28 (31.1%) use WhatsApp to learn Spanish. It is worth mentioning that 54 respondents communicate with their peers and other Spanish natives in Spanish using WhatsApp. WhatsApp is mainly for messaging; thus, it is not out of the ordinary that it is not frequently used to learn Spanish but rather for communication in Spanish. Most of the respondents, 57 (63.3%), use YouTube to learn Spanish. This resonates with Li (2017) and Malik and Asnur (2019) which showed that a high percentage of students use YouTube for learning English. Li (2017) stated the ability to watch language related videos and lectures on YouTube as the reason for the high usage of YouTube for learning. Also, YouTube is used to create and share different types of information and ideas publicly and most often not limited to a group of people.

These findings indicate that, students engage with the Spanish language in their daily online interactions either through peer chat, reading, listening and writing Spanish content. It may not necessarily be a conscious act, but the results indicate that, they do have engagements with the Spanish language online.
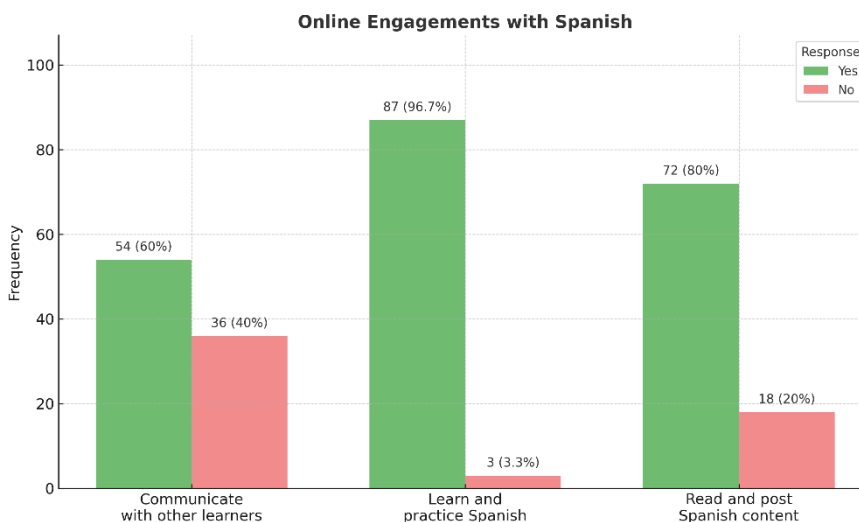
Figure 2: Online engagements with Spanish

Usage of language learning platforms

To identify the digital platforms that students mostly utilize for their Spanish language learning endeavours, data on learners' platform usage and preference was analysed. Apart from social media, there exist specific applications and websites (digital platforms) that are designed purposefully for education and language learning. Unlike social media which presents various information on a variety of topics and fields, these digital platforms only present educational content with some presenting only language-related content like grammar, oral, composition, comprehension, listening, cultural interactions, etc. According to the data received, 52 respondents (57.8%) use other digital platforms aside from social media to read and post Spanish content online.

Respondents displayed a diverse range of choices when it comes to learning resources. Multiple platforms and resources were selected and mentioned, indicating the wealth of options available for Spanish learners. The most commonly known language learning platform is Duolingo (88 respondents, 97.5%), however, only 73 (81.1%) respondents use the platform. This platform's widespread popularity can be attributed to its accessibility and gamified approach to language learning. YouTube Learning Channels are the second most popular platform known by 59 respondents (65.6%) and used by 49 954.4%).

This highlights the influence of video content on language learning. Platforms like FluentU, Babbel, Cousera, and StudySpanish, are fairly known by 31 (34.4%), 27 (30%), 26 (28.9%), and 25 (27.8%) respectively. However, fewer numbers used these apps with 21 (23.3%) for FluentU, 10 (11.1) for Babbel, 6 (6.7%) for Coursera, and 16 (17.6%) for StudySpanish. FluentU offers immersive language experiences, while Babbel and Coursera are known for their structured language courses. This suggests that

more students prefer the language immersion experience over the structured forms of digital language learning. Although Edx has a similar function as Cousera, no students indicated using EdX. This demonstrates the unpopularity of Massive Open Online Courses (MOOCs) for language learning. Other language learning platforms like Memrise, Mondly, Preply, Mosalingua, Rocket languages, Audio Lingua, Drops, Berlitz, Pimsleur, etc. are less known among respondents with less than 5% of respondents using them. This could be due to factors such as lesser recognition, specific target audiences, or alternative preferences among the users.

Notably, Duolingo and YouTube which are free are widely favoured whereas Memrise, Mondly, Preply, and Mosalingua, which is a subscription-based platform, have a low user base. This suggests a preference for cost-effective or free resources among a sizeable portion of users. Nevertheless, Babbel and FluentU which are subscription-based platforms, also enjoy a fairly good number of users. This indicates that some individuals are willing to invest in paid language learning resources. It is worth mentioning that a higher number of students know of the existence of these language learning digital platforms but not all of them make use of them.

On the usage patterns, respondents demonstrate a diverse range of usage patterns, with each category of usage having a notable representation. Half of the respondents (45, 50%) use the platform "three times" (13.3%), "twice" (8.9%), and "once" (6.7%) which represent the less frequent users, indicating that they access the platform a few times a week. The other half (35, 38.89%), engage with the platform more than 3 times per week, indicating moderate usage. This suggests that individuals typically engage with the platform multiple times a week and others interact with the platform daily or nearly every day. 11.1% of respondents chose "Does not apply," which suggests that the question may not have been relevant to their specific platform or usage. The data reflects a variety of usage frequencies, indicating that individuals have different routines and needs for platform engagement. Frequent usage patterns, where respondents access the platform more than 5 times a week, may be indicative of platforms integrated into daily routines or serving as a primary source of content or communication. Moderate and infrequent usage patterns suggest that users visit the platform periodically, likely based on their individual preferences and schedules.

Foci of language learning via digital platforms

The data presented in Table 2 demonstrates the preferences of respondents in terms of their priorities in language learning across various aspects, including grammar, vocabulary, pronunciation, literature, culture, class activities, listening skills, oral practice, and intercultural exchange. There was a strong emphasis on the use of these platforms to learn grammar, vocabulary, and pronunciation with a significant majority of respondents, 86.7%, 85.6%, and 78.9% respectively. This indicates that foundational language skills are of paramount importance to most language learners. There was a significant prioritization of oral practice and listening skills. A good number of respondents use

these platforms to enhance their production and perception skills; 63.3% for listening skills and 66.7% for oral practice. This reflects the practical nature of language learning, with a focus on effective communication and understanding spoken language. While culture, 16 (17.8%), and literature, 13 (14.4%), have relatively lower emphasis compared to grammar, vocabulary, and pronunciation, it is noteworthy that a substantial portion of respondents still value the cultural and literary aspects of language learning. This suggests an interest in understanding the broader context and rich cultural heritage associated with the language being studied. There is limited use of these platforms for class activities and intercultural exchange. A small number of respondents (13, 14.4%) indicated the use of these platforms for class activities which suggests that Spanish language instructors at the University of Ghana do not use frequently these platforms as part of their curriculum.

The findings obtained from Godzicki et al. (2013) study on students' motivation and engagement in the classroom revealed that students were more likely to engage in the classroom when technology is used as an educational tool inside the class. Thus, it is worth looking beyond students' access to these digital platforms outside of class or for personal use and bringing the focus on incorporating technology in the Spanish classroom. Intercultural exchange (5, 5.6%) may be considered less significant by the respondents. This might indicate that intercultural interactions are not as highly valued by most respondents in their language learning experience.

The strong emphasis on grammar, vocabulary, and pronunciation suggests that language learners place great value on building a solid linguistic foundation, which is essential for effective communication. Prioritizing listening skills and oral practice underscores the practical nature of language learning, emphasizing the ability to communicate effectively and understand spoken language, which is crucial for real-world interactions. The interest in culture and literature highlights a desire to engage with the language in a broader context, beyond its structural aspects. This might reflect an aspiration to understand the cultural nuances and context in which the language is used.

Table 2: Language aspects respondents use platforms to learn

Language Aspect	Fount	Percentages (%)
Grammar	78	86.7%
Vocabulary	77	85.6%
Pronunciation	71	78.9%
Literature	13	14.4%
Culture	16	17.8%
Class Activity	13	14.4%
Listening Skills	57	63.3%
Oral Practice	60	66.7%
Intercultural Exchange	5	5.6%
Does not apply	2	2.2%

Benefits of digital platforms for language learning

In line with the third objective, the study explored the advantage of both social media and language learning platforms in their language study. A majority of respondents find both social media (28.9%) and language platforms (14.4%) to be generally helpful. This suggests that a significant portion of respondents perceive these platforms as beneficial for their language learning and social interactions.

Social media is particularly seen as beneficial for the acquisition of vocabulary and expressions (34.4%) whereas language platforms are beneficial for improving oral and communication skills (23.3%). A notable number of respondents (14, 15.6%) indicated social media as beneficial for improving oral and communication skills which aligns with its primary function of facilitating communication and interactions.

While language platforms are noted for their language learning benefits, just 4 respondents (4.4%) seem to gain some cultural and historical knowledge, and no respondent indicated having any encounter with natives through these platforms. This may suggest that these platforms may not be seen as strong tools for cultural immersion. The lower emphasis on cultural knowledge and interactions with natives suggests that these platforms might not fully meet the expectations of respondents in terms of cultural immersion and authenticity. Likewise, with social media, few respondents (3, 3.3%) gained some cultural and historical knowledge. However, it provided some encounters with natives to 5 respondents. In Lai and Gu (2011) the data revealed that the participants responded least positively to the use of technology to regulate social connections and support. This was because most participants felt it was dangerous to talk or chat with strangers.

The data in *Table 3* above highlights the multifaceted nature of these platforms and the varying roles they play in language acquisition and communication and highlights the varied opinions regarding the usefulness of social media and language learning platforms. Respondents generally find both types of platforms to be useful.

Table 3: Benefits from digital platforms

Benefits	Social media		Language platforms	
	No.	%	No.	%
Generally helpful	26	28.9	13	14.4
Better language understanding	8	8.9	5	5.6
Acquisition of vocabulary and expressions	31	34.4	10	11.1
Improved grammar	4	4.4	10	11.1
Improved oral and communication skills	14	15.6	21	23.3
Acquisition of cultural and historic knowledge	3	3.3	4	4.4
Reading and writing skills	5	5.6	1	1.1
Encounter with natives	5	5.6	0	0
Easy and fun learning	7	7.8	6	6.7
Not helpful/NA	2	2.2	3	3.3
No response	0	0.0	24	26.7

Challenges with the use of digital platforms and social media.

Students expressed in response to open-ended questions some challenges they faced accessing and using technology and digital platforms to learn Spanish. A common theme that emerged was the difficulty in sustaining engagement and motivation over time. Although students initially found digital platforms and social media interesting, many expressed that the novelty wore off quickly, leading to reduced enthusiasm. Approximately 55% of students mentioned they felt that the platforms did not offer enough progression or personalization to keep them motivated. As indicated by Godwin-Jones (2015a), lack of adaptive content in digital learning tools can diminish motivation, as learners do not feel that their progress or needs are being adequately addressed. One student indicated that

> "The app feels repetitive after some time, and it doesn't feel like I am making real progress in speaking Spanish. It's easy to get bored" (Participant 12, Female, first year student).

Furthermore, students reported that social media interactions in Spanish, while helpful, were often too informal or fragmented to feel like productive language practice. Thorne et al. (2009) found that while social media offers opportunities for informal language use, the lack of structured practice can sometimes impede students' ability to develop more formal language skills necessary for academic or professional settings.

Additionally, many students noted that the digital platforms lacked depth in cultural and contextual learning, a critical component of language acquisition. Nearly 30% of respondents shared that while they could learn vocabulary and grammar through these tools, they felt disconnected from the cultural context of the language, particularly the diverse regional expressions in Spanish-speaking countries.

> "I want to understand how Spanish is used in real-life situations in different countries, but the apps don't teach these things. It feels like I am just learning words without knowing when and how to use them". (Participant 31, Male, third year student).

This issue highlights a gap in digital platforms, which tend to standardize language learning and may not offer content that captures the diversity of the Spanish-speaking world. Thorne et al. (2009) support this finding, noting that many online platforms lack the cultural depth necessary for learners to connect language skills with real-world contexts.

Privacy concerns emerged as a barrier for students who wished to engage with native Spanish speakers or join online communities. Around 25% of students mentioned that they were hesitant to participate actively on social media due to data privacy concerns or discomfort with sharing personal information on public forums. Research by Benson (2023) highlights that privacy is a significant concern in mobile and social media-based language learning, as learners are often required to share personal data to access these tools. One of them expressed:

> "I feel uncomfortable joining Spanish-speaking groups on Facebook because I am worried about sharing my personal information. I want to practice, but I don't want to put my personal information online". (Participant 38, Female, final year student).

This hesitation restricts students' ability to engage in authentic conversations and limits their exposure to real-world language use. Without the safety and privacy of structured classroom settings, social media interactions can feel risky, reducing students' willingness to participate in such online communities.

Cognitive overload as noted by Sweller et al. (2011) plays a critical role in digital learning environments, where excessive information can impair retention and comprehension. Students reported feeling overwhelmed by the amount of content on digital language platforms and social media. About 45% of respondents shared that the volume of vocabulary, notifications, and additional multimedia content created a sense of overload, particularly for beginners.

> "I feel like I am always learning new words, but I forget them easily because there's just too much. And on social media, there's a lot going on, so I get distracted." (Participant 24, Male, first year student).

Furthermore, students noted that the constant distractions on social media such as notifications from friends or non-language-related content often diverted their attention from language learning. This fragmentation affected their retention and comprehension, as their focus was frequently interrupted, aligning with Mayer and Moreno's (2003) findings on the impact of extraneous material on cognitive load in multimedia learning environments.

Several students raised concerns about the lack of consistent, personalized feedback on digital platforms. While traditional classroom settings allow for immediate correction and interaction with instructors, digital platforms often rely on automated feedback that does not always clarify student errors.

> "I wish I have a teacher by me while using the app, someone who can explain why I made a mistake. The app just tells me I'm wrong without explaining why." (Participant 67, Female, first year student).

As expressed by one of the respondents above, approximately 60% of students expressed a desire for more interaction with instructors or peers to gain real-time feedback, which was not feasible on most digital platforms. Reinders and Wattana (2015) suggest that language learners benefit significantly from direct feedback, which is often absent in digital environments. This challenge limits students' ability to self-correct and fully understand complex grammatical structures, especially in a language like Spanish with nuanced verb conjugations and syntactical rules.

Overall, language platforms are primarily seen as effective tools for language learning, with a focus on vocabulary, expressions, and oral skills. Students, with different academic

and social goals, benefit from use and engagement on a variety of digital platforms. Students are also faced with challenges which includes limitations on the effectiveness of the various platforms that hinder them from enjoying the full range of benefits and opportunities aligned.

Implications of the findings

The findings of this study have significant implications for enhancing Spanish language education through digital tools at the University of Ghana. One major recommendation is for educators to offer introductory training on how to use digital platforms, ensuring students are comfortable navigating and utilizing app features effectively. Learners are also encouraged to actively engage with digital tools. Setting clear, achievable goals like learning a set number of new words weekly or writing a short paragraph in Spanish can help maintain focus and motivation. Ongoing digital literacy sessions are also essential to help students adapt to updates and new functionalities. Educators themselves must stay informed about available digital resources to better guide students and integrate relevant tools into their teaching practices.

Cultural competence is another key aspect of language learning. To enhance cultural learning, educators should guide students in using media that highlight regional expressions and customs and also select digital platforms that incorporate cultural content such as videos or discussions on regional dialects and customs. Learners should actively engage with these tools by setting measurable goals, participating in interactive tasks, and seeking out native speakers to improve fluency and cultural competence. Privacy awareness is also essential, and learners must learn to use social media responsibly. Learners must understand how to manage privacy settings and avoid sharing sensitive information online. Educators should also encourage the formation of private, moderated online groups for peer interaction and exchanges with native speakers. These spaces offer a safe and supportive environment for practicing Spanish while minimizing privacy risks. Monitoring by educators ensures the interactions remain respectful and educational.

Additionally, app developers also play a crucial role in enhancing learning experiences. By offering human-based feedback in addition to automated responses and tailoring content to different proficiency levels, platforms can be made more effective. Incorporating techniques like spaced repetition and encouraging breaks can help learners retain information and prevent cognitive overload. These measures can significantly enrich digital language learning experiences. Altogether, coordinated efforts from educators, learners, and developers are vital to maximizing the benefits of digital tools in language learning.

Limitations and suggestions for future research

While this study provides valuable insights into the use of digital tools and online engagement in learning Spanish among students at the University of Ghana, it is not

without limitations. First, there was a significant gender imbalance in the respondent pool, with 81 out of 90 participants being female. Although this reflects the actual gender composition of the Spanish Section, it may introduce a bias in perceptions, preferences, and digital habits that are not generalizable to a more gender-balanced population. Additionally, the qualitative data were limited to open-ended questions embedded in the questionnaire. Although content analysis was conducted, the lack of in-depth interviews or focus groups restricted the depth and richness of qualitative insights that could have added more nuanced understanding of learners' experiences and motivations. Finally, the study focused solely on one university context, which may limit the applicability of the findings to other institutions with different resources, student populations, or language learning environments. Despite these limitations, the study offers a useful foundation and valuable insights for future research and curriculum development.

Further research could delve into the reasons why individuals choose specific platforms. This would provide a more comprehensive understanding of the factors that influence platform selection. Additionally, it would be beneficial to replicate the study in other universities or with students learning other languages other than Spanish to grasp a broader view of digital language learning. Furthermore, it would be interesting to investigate how different platforms impact language learning outcomes and whether combining various resources leads to more effective learning. Further research could also investigate the factors influencing value of certain aspects of language learning more than others can provide valuable insights for language educators and curriculum designers. Lastly, there is the need to explore the long-term impacts of digital language learning and best practices for optimizing its effectiveness.

Conclusions

The results highlight that students spend a good amount of time engaging with the Spanish language through different digital platforms, be it social media or language learning platforms. The result of this study highlights the academic and social benefits students get from the use of digital platforms. It also reflects the diversity of digital choices available to Spanish language learners, with Duolingo as the overwhelmingly preferred platform. The popularity of YouTube and the presence of various interactive, immersive, and formal learning resources highlight the rich landscape of language learning tools. It also provides valuable insights into the digital platform preferences and language learning habits of the respondents underscoring the importance of catering to individual learning styles and needs when designing language learning programs.

The data indicates a substantial interest in using digital platforms including social media for learning and practicing Spanish. This presents opportunities for educators and developers to enhance the language learning tools available on these platforms. Instructors could also take advantage of the relevance of some of these platforms and incorporate them into their classrooms or curriculum. Platforms that are primarily used for language learning should consider integrating additional features or content that

encourage active engagement, fostering a sense of community among learners. Building or strengthening language learning communities on these platforms could help bridge the gap between passive content consumption and active engagement.

Given the high usage of YouTube and WhatsApp, there is potential for leveraging these platforms for language learning and connection. Language educators and learners can explore innovative ways to use these widely adopted social media tools for educational purposes. As indicated by Ahmadi (2018), technology has become part of our everyday lives, thus, we must constantly think of integrating technology into the curriculum and aim to embed technology into teaching to support the learning process. Also, the findings illustrate the diverse priorities and preferences of respondents when it comes to language learning. While grammar, vocabulary, and pronunciation remain central, there is also a clear interest in cultural and literary dimensions, as well as a strong emphasis on practical language skills.

The results also highlight the various challenges and disadvantages associated with the use of digital platforms and social media among Spanish language learners. Challenges include privacy risks, cognitive overload, and limited personalized feedback. These challenges resonate with challenges identified by previous studies emphasising the need to develop strategies to curb these challenges to make the use of digital platforms and social media in language education more effective.

Digital platforms play an important role in the language learning journeys of University of Ghana Spanish as a Foreign Language students. These platforms offer diverse opportunities for language exposure, foster engagement, and provide educational advantages. The results certify that students indeed recognize and utilize the benefits of technology in their language learning journey, and if their challenges are contended with, digital platforms can be made a central component of contemporary language education.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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