

Digital Citizenship And Language Learning: Attitudes Toward Rosetta Stone In Moroccan Higher Education

Jamal Houmane¹, Abdelaziz Zaher², Hind Brigui³, Abderrahim El Omari⁴

¹(Ph. D. Student/ Department Of Interdisciplinary Research In Art, Culture, And Language Sciences, College Of Languages, Letters And Arts/ Ibn Tofail University, Morocco)

²(Ph.D. Student/ Department Of Public Law & Human Rights, The Faculty Of Law, Economics And Social Sciences Of Mohamedia / Hassan 2nd University, Morocco)

³(Professor Of Higher Education/ Department Of Interdisciplinary Research In Art, Culture, And Language Sciences, College Of Languages, Letters And Arts/ Ibn Tofail University, Morocco)

⁴(Professor Of Higher Education/ Department Of Public Law & Human Rights, The Faculty Of Law, Economics And Social Sciences Of Mohamedia / Hassan 2nd University, Morocco)

Abstract:

This study investigates first-year Hassan 2nd University Moroccan students' attitude about using the Rosetta Stone platform to learn English. The study uses a mixed-method approach. An adapted version of the Technology Acceptance Model (TAM) is employed to evaluate the platform's perceived utility, perceived ease of use, and general attitude. A questionnaire was used to gather data from 291 respondents, and the findings showed that while most respondents thought Rosetta Stone was moderately beneficial and easy to use, they had a negative opinion of the program, in general. Significant positive correlations between the constructs were revealed by quantitative research, and qualitative insights emphasized the platform's strengths and shortcomings. The study leads to the conclusion that although Rosetta Stone is seen as helpful and user-friendly, learning outcomes and student satisfaction might be raised by improvements in technological functionality, adaptability, and content relevancy.

Keywords: Rosetta Stone, Digital Citizenship, Technology Acceptance Model (TAM), English Language Learning, Students Attitudes,

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I. Introduction

Over the last decade, English has become a vital component of international academia and business, demonstrating its significance in Morocco's changing linguistic landscape. This alteration has heightened the need for proficiency in the English language and motivated the Moroccan educational system to adopt efficient instructional methods. Rosetta Stone is widely recognized as a top platform for Computer-Assisted Language Learning (CALL), offering students a personalized and exceptional educational experience. The objective of this research is to examine the integration of information and communication technology (ICT) in higher education in Morocco, with emphasis on the use of Rosetta Stone by college students to enhance their English language abilities and competency. Thus, the notion of digital citizenship has gained significance due to its inclusion of the conscientious and efficient use of technology to uphold the right to education. Digital citizenship promotes equal access to educational materials and fosters digital literacy, enabling all students to take advantage of new technology breakthroughs such as Rosetta Stone. This integration not only improves language acquisition but also enables students to actively and knowledgeably engage in the digital realm.

From Citizenship to Digital Citizenship: Navigating the Shift in a Digital Era

Alongside engaging and significant academic discussions on the requirements of citizenship or citizenship education in a diverse and global era, the advent of the information revolution in the late 20th and early 21st centuries has given rise to a multitude of citizenship-related inquiries due to the widespread and rapidly growing utilization of the Internet: What sets digital citizenship different from previous notions of citizenship in the digital era? What is the significance of the Internet as a means of promoting active participation in civic affairs? What strategies may instructors use to encourage the growth of knowledgeable and active digital citizens in the era of the Internet? (Ribble & Bailey, 2007)

Studies examining the relationship between citizenship and the Internet have mostly been divided into two distinct branches. Researchers have mostly concentrated on reinterpreting citizenship by using established notions of largely cultural citizenship to create supplementary dimensions of citizenship that are more suited for

the Internet era (Davis, 2021; Mossberger et al., 2010). These researchers have analyzed the impact of cultural citizenship in contemporary media society and internet-based communication. On the contrary, some experts recognize that the Internet is ubiquitous in human endeavors, including civic activities as well. These academics have recently adopted the phrase "digital citizenship," which is often described as "the standards of suitable and accountable conduct concerning the use of technology" (Ribble, 2004) or "the capacity to engage in online society" (Mossberger et al., 2008).

Understanding Digital Citizenship: A Comprehensive Overview Of Participation, Responsibility, And Inclusion In The Digital Age

Digital citizenship encompasses the ability to successfully and ethically interact in online society, including the necessary technological skills, knowledge, and access to participate in digital settings fully. It expands upon T.H. Marshall's notion of citizenship by integrating the essential talents required for inclusion in the digital era. Digital citizenship encompasses economic opportunities, such as the ability to access job openings and improve one's skills; democratic participation, which enables political engagement and informed voting; and social inclusion, ensuring that individuals are integrated into the prevailing modes of communication (Mossberger et al., 2010).

The existence of a digital gap is perpetuated by considerable discrepancies in access to technology and digital skills, which in turn contribute to social and economic inequities. Public policy should aim to rectify these discrepancies by guaranteeing equal access to technology and essential educational skills for all individuals. Empirical data emphasizes the advantages of internet use for democratic engagement and economic well-being, especially among marginalized populations. The theoretical framework, based on Rogers Smith's traditions of citizenship, highlights the crucial importance of internet use in contemporary citizenship, highlighting the need for equitable opportunities and a united political community (Smith, 2011). Essentially, digital citizenship encompasses the consistent and efficient use of the internet, including economic, political, and social aspects, and emphasizes the need for regulations that encourage equal access and fairness in the digital realm.

Digital citizenship is a complex term that includes several aspects connected to the appropriate and ethical use of technology. According to Mossberger, Tolbert, and McNeal (2008), digital citizenship is the capacity to engage in online society, emphasizing the crucial skills and access to information technology needed for successful involvement in civic participation, economic activities, and critical services.

Choi (2014) further elaborates on this concept by highlighting the need for suitable and accountable conduct, proficiency in using digital technology, moral principles, and established standards of involvement. The text emphasizes the significance of comprehending digital rights and duties, safeguarding privacy, honoring intellectual property, and participating constructively online to surpass geographical and cultural limitations. According to Sandhu (2009), digital citizenship includes digital etiquette, literacy, ethics, and legislation. He emphasizes the need for digital citizens to be aware of the consequences of their digital activities on both themselves and others. They should possess a comprehension of and show respect for digital rights and responsibilities, as well as actively engage in society via the use of digital technologies. The essential components include the ethical use of technology, safeguarding of privacy, and reverence for intellectual property. Ribble and Bailey (2007) provide a comprehensive perspective, delineating several essential components of digital citizenship, including digital access, commerce, communication, literacy, etiquette, law, rights and duties, health and wellbeing, and security. This comprehensive approach emphasizes the wide-ranging extent of digital citizenship, including many facets of digital interactions and behaviors.

The Significance Of Digital Citizenship In Education

The primary objective of digital citizenship education is to provide people, especially students, with the essential abilities and proficiencies to navigate and engage in digital settings successfully. This instructional method should not be confined to separate classes or occasional events but rather should be included into the everyday learning encounters of students. Through the integration of digital technologies in relevant and practical ways that mirror real-world situations, educators may facilitate genuine learning experiences. For example, students may participate in initiatives that need the responsible and ethical use of digital resources, cultivating a more profound comprehension of digital citizenship in their daily endeavors (Mattson, 2017).

Efficient digital citizenship education entails cultivating a comprehensive range of abilities, including technical, social, and emotional proficiencies. Students must acquire the skills to critically evaluate digital material, actively engage in online communities, and effectively collaborate in digital environments. With this extensive range of skills, students can confidently and ethically navigate the digital world. Therefore, educators must develop a curriculum that includes these many characteristics, guaranteeing that students are adequately equipped to navigate the problems and possibilities associated with digital engagement (Mattson, 2017).

Teachers have a crucial responsibility in demonstrating and directing pupils in the conscientious use of digital tools. To reinforce students' learning experiences and guarantee their secure and ethical exploration of

digital environments, instructors must acquire digital competence. This involves understanding and teaching about internet safety, digital literacy, and the ethical use of digital tools. Moreover, digital citizenship is closely linked to the broader concept of citizenship and active engagement in society. As students develop the capacity to participate in online communities, they also develop skills that may be used in real-life communities. This encourages an all-encompassing approach to citizenship that establishes a connection between individuals' online and offline experiences (Simões et al., 2024).

Digital Transformation In Moroccan Higher Education

Higher education in Morocco has undergone substantial change to meet the increasing demand for English rather than French, which has long been the primary language of instruction and other fields. This change is partially explained by English's greater communicative potential and lack of connotation with colonialism, which make it an invaluable tool for engagement and opportunity on a global scale (Sidi & Ben, n.d.). Simultaneously, there has been a deliberate drive toward digitization, which has made the adoption of new pedagogical strategies and the updating of the educational infrastructure to conform to global norms necessary (Ferouali & Ouhadi, 2023). With government reforms to ease the shift to digital modes of instruction, this digital shift seeks to improve the reputation of institutions and the quality of teaching practices.

Rosetta Stone: A CALL Resource In Focus

Rosetta Stone's application in this digital transformation leverages audio recordings and images to enhance learners' language proficiency (Slimani & Jabal, 2023). It embodies a personalized learning model that has shown promise in improving reading comprehension and vocabulary, albeit with noted limitations in grammar instruction and conversational practice. This nuanced efficacy underscores the importance of examining CALL's impact on language learning, as evidenced by various studies.

Griffin et al. (2014) demonstrated Rosetta Stone's positive effect on English proficiency in an international secondary school setting, emphasizing the potential benefits of online instruction when coupled with conducive learning environments. Similarly, Work (2014) evaluated Rosetta Stone's compatibility with proficiency-oriented language instruction and blended learning environments, suggesting its alignment with the basic French Curriculum. These findings, however, are tempered by limitations in sample size and study duration, calling for cautious interpretation.

CALL Effectiveness And Student Attitudes

The utility of CALL, and by extension Rosetta Stone, extends beyond specific linguistic gains. Research conducted by Kumari & Thenmozhi, (2023) underscores CALL's overall effectiveness in enhancing dynamic learning experiences, self-paced study, and engagement in language acquisition. This broader impact is further corroborated by studies focusing on mobile-assisted language learning (MALL), where Rosetta Stone's role in improving a range of language skills through its sophisticated, learner-centered platform is emphasized (Debataraja & Daulay, 2024).

The student and teacher attitudes toward technology use in language learning also play a critical role. Bettioui (2016) and Bourray (2023) research reflects a positive inclination toward ICT among Moroccan EFL students and an acknowledgment of its potential to foster innovative pedagogy and improve educational quality. However, the successful integration of tools like Rosetta Stone also hinges on overcoming barriers to technology adoption in the educational context.

To conclude, the integration of ICT and CALL resources like Rosetta Stone in Moroccan higher education represents a significant shift toward modernizing language learning and teaching. While the promise of enhanced English proficiency and engagement with global communication channels is evident, the realization of these benefits depends on overcoming existing challenges and further research to validate and refine these educational tools' effectiveness.

II. Material And Methods

Research Design

To investigate the attitude of college students toward the use of the Rosetta Stone platform for learning English, this study employs a mixed-method design. Data were collected from 291 respondents using a questionnaire based on Technology Acceptance Model (TAM). This framework suits the objectives of the study, focusing on three main constructs: perceived usefulness and perceived ease of use, and the overall attitude toward the use of Rosetta Stone platform.

Sample

The participants in this study were randomly selected exclusively from first-year students belonging to Hassan 2nd University, language and communication department. The sample choice is in alignment with the

recent higher education reform, which mandates the gradual implementation of the Rosetta Stone platform in Moroccan universities, starting with freshmen students. This phased approach allows for a systematic and gradual integration of technology in the teaching of languages in Moroccan higher education and ensures the study's relevance. The study will also provide insights into the ongoing process of digitalizing language learning. On the other hand, the researchers chose Hassan 2nd University students due to their easy access to the students' population. This convenience facilitated efficient data collection with a relatively high response rate.

Data Collection

The data were collected using Google Forms, which was sent via emails and WhatsApp groups to the target students. The data collection period spanned one month with two reminder notices over this period. The questionnaire was administered to a total of 767 students, of which 291 responded. The return rate was approximately 37.94%.

Instrument

To investigate the attitude of Hassan 2nd University students toward using Rosetta Stone as a tool of learning the English language, this study employs an adapted version of the Technology Acceptance Model (TAM). The latter was initially proposed by Davis in 1989. It offers a framework to examine the acceptance and use of information systems and technology. Davis (1989) developed this model based on the Theory of Reasoned Action (TRA) which is used to understand the factors affecting users' acceptance of technology, particularly in educational settings (Davis, 1989). According to Mugo et al. (2017), TAM suggests that the acceptance of technology is influenced by two key determinants: perceived usefulness (PU) and perceived ease of use (PEOU), which therefore impacts users' attitudes toward using technology and their intention to use it.

Relevance of TAM to this Study

In the context of higher education reforms being implemented in Morocco, and specifically in exploring first-year college students' attitudes toward the Rosetta Stone platform for learning English at Hassan 2nd University, the TAM model provides a well-structured and validated approach to evaluate the key factors of technology acceptance. Since the application of the Rosetta Stone platform in Moroccan universities is still under test, it is crucial to understand students' perceptions regarding its usefulness (PU) in their English language acquisition and the ease with which they can use and navigate the application (PEOU). The significance of these two perceptions lies in the fact that they directly influence the overall attitude toward the learning tool and students' intentions to use it regularly (Davis, 1991).

Constructs of the adapted TAM Model

This study focuses on three main constructs of the TAM framework: perceived usefulness, perceived ease of use, and attitude toward use. The validity of these constructs has been validated in many previous studies, which makes them suitable for technologies used in educational contexts (Mugo et al., 2017; Marikyan & Papagiannidis, 2023).

1. Perceived Usefulness (PU): is defined as the degree to which an individual believes in the ability of technology to enhance their language proficiency Davis (1989). Previous research has shown that perceived usefulness affects the level of technology acceptance to a great extent. Consequently, students tend to use tools they perceive as useful for their learning process (Davis, 1989; Mugo et al., 2017).

2. Perceived ease of use (PEOU): Davis (1989) defines this construct as the degree to which a student's believes that the use of a system will be effortless. In the context of our study, the ease of using Rosetta Stone is important as it is likely to affect the initial choice of this platform in specific. The use of a particular system is determined by its ease of use and the extent to which the user thinks it will be free of effort (Davis, Bagozzi, & Warshaw, 1989).

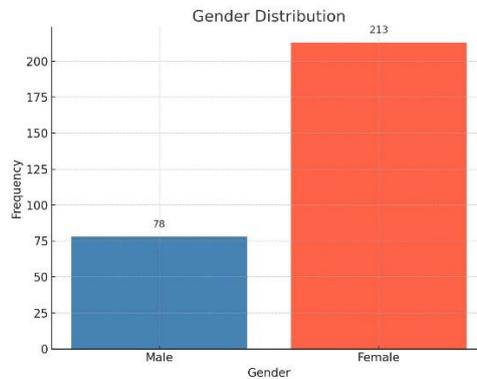
3. Attitude Toward Use (ATU): this construct is about the user's overall affective reaction to using technology (Davis, 1989). The feelings of the user toward their use of a particular tool can either be positive or negative. The effect of the two previously mentioned constructs is expected to impact the attitude of individuals toward the use of technology and their intentions to keep using it (Davis, 1989; Mugo et al., 2017).

III. Result

The data analysis employs both quantitative and qualitative methods to evaluate the attitudes of first-year students toward the Rosetta Stone platform, using the Technology Acceptance Model (TAM). The students' judgments of utility, ease of use, and overall attitude were described using descriptive statistics. Pearson's correlation analysis was used to analyze the links between these variables, specifically focusing on how ease of use and perceived usefulness impact overall attitudes. The thematic analysis of open-ended replies revealed some positives, such as the inclusion of interactive activities and feedback mechanisms. However, it also indicated

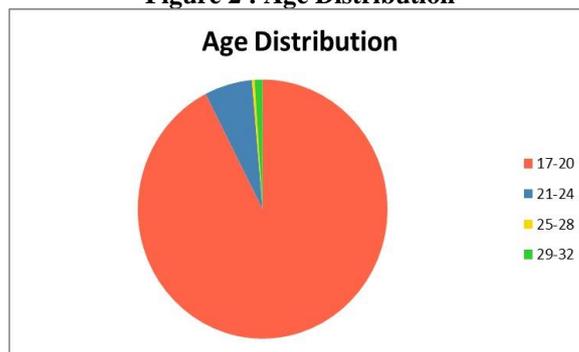
flaws, such as technological difficulties and the need for more adaptable schedules and culturally appropriate material. This research offers a holistic perspective on students' views, which may be used to make informed suggestions for enhancing the efficacy and user satisfaction toward Rosetta Stone.

Figure 1: Gender Distribution



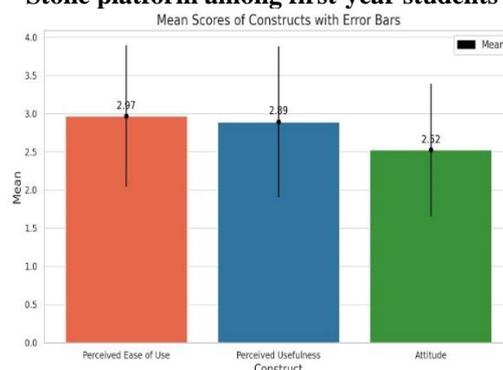
The bar figure depicts the gender distribution of a sample including 291 participants. According to the statistics, there are 213 females in the sample, which accounts for 73.2% of the total. Conversely, the male population accounts for 26.8% of the total sample, consisting of 78 people. This evident discrepancy implies a prevalence of female participation in the research.

Figure 2 : Age Distribution



The pie figure exhibiting the age distribution of college freshmen using Rosetta Stone indicates that most users, shown by the prominent red section, fall between the age range of 17-20, which comprises 80% of the total. These findings indicate that most users are individuals who have just completed high school. The blue section represents a lower proportion, namely 15%, of the users between the ages of 21 and 24. The age groups 25-28 and 29-32, shown by the yellow and green segments respectively, constitute 3% and 2% of the figure. This distribution reveals a notable clustering of younger students using the platform.

Figure 3: Mean scores for Perceived Ease of Use, Perceived Utility, and Attitude toward the Rosetta Stone platform among first-year students



Using the Technology Acceptance Model (TAM). The mean score for Perceived Ease of Use was 2.97, with a standard deviation of 0.93. The platform's perceived utility received a mean score of 2.89, suggesting moderate variability and a generally neutral to somewhat positive perception of its usefulness. The Attitude construct had the lowest mean score of 2.52, suggesting a less favorable attitude toward the platform. The figures demonstrate that first-year students see the Rosetta Stone platform as user-friendly, but their overall evaluation of its usefulness and attitudes toward it are less favorable. The lowest average score among the three components indicates that students may have uncertainties about the overall value and effectiveness of the platform, which is shown in their overall disposition toward it. Enhancing the practical benefits and applicability of the platform's information might increase students' overall satisfaction and approval.

Figure 4: Table of Correlations between Perceived Ease of Use, Perceived Usefulness, and Attitude Toward the Rosetta Stone Platform

		Perceived Ease Of Use	Perceived Usefulness	Attitude
Perceived Ease Of Use	Pearson Correlation	1	.570**	.415**
	Sig. (2-tailed)		.000	.000
	N	291	291	291
Perceived Usefulness	Pearson Correlation	.570**	1	.474**
	Sig. (2-tailed)	.000		.000
	N	291	291	291
Attitude	Pearson Correlation	.415**	.474**	1
	Sig. (2-tailed)	.000	.000	
	N	291	291	291

Perceived Ease of Use and Perceived Usefulness:

The correlation value of 0.570 reveals a moderate positive link between the perceived ease of use and perceived usefulness. These findings indicate that students who consider the Rosetta Stone platform as user-friendly are likewise inclined to see it as beneficial for English language acquisition. The p-value of less than 0.01 indicates that this link is statistically significant.

The value 0.415 suggests a moderate positive association between Perceived Ease of Use and Attitude. Consequently, students who see the platform as user-friendly often have a more favorable disposition toward it. The p-value of less than 0.01 shows that this link is statistically significant.

Perceived usefulness and attitude:

The value 0.474 suggests a somewhat favorable association between Perceived Usefulness and Attitude. These findings indicate that students who see the platform as beneficial are more like to have a positive attitude toward it. The p-value of less than 0.01 supports the statistical significance of this link.

The correlations indicate that both the perceived ease of use and perceived utility have a substantial impact on students' perceptions of the Rosetta Stone platform. Improving the user-friendliness and perceived advantages of the platform may result in more favorable sentiments among students, possibly enhancing its efficacy as a language-learning instrument.

Qualitative Results:

The qualitative analysis of students' answers to their preferred aspects of the Rosetta Stone platform demonstrates many significant patterns. Students like the platform's captivating interactive activities and visual aids, which enhance the enjoyment and effectiveness of learning. The platform's usability, characterized by its clear layout and well-organized courses, is well appreciated. The efficacy of feedback systems, namely in the areas of pronunciation practice and progress monitoring, is highly commended for its ability to enhance students' speaking abilities and let them to closely monitor their improvement. Moreover, the extensive content that encompasses a wide range of language skills, including enhancing vocabulary, reading comprehension, and listening comprehension, is regarded as advantageous. Nevertheless, several students have expressed apprehensions over the platform's efficacy and the limitations it imposes in terms of time, indicating that while the platform is generally well-received, there is potential for enhancement to cater to students' requirements and academic timetables more effectively. These observations may inform improvements to the Rosetta Stone platform to enhance its efficacy as a language acquisition tool.

The study of students' ideas for enhancing the Rosetta Stone platform reveals significant areas for improvement. Technical enhancements are essential, especially in addressing audio and microphone problems

and maintaining precise time monitoring. Students voiced their dissatisfaction with the compulsory 30-hour obligation and proposed a more adaptable distribution of time based on individual needs. Additionally, they suggested including additional interactive components, such as games and real-time discussion exercises, and offering a wider range of varied and relevant material, including advanced vocabulary and grammar tutorials. Improving the user design, particularly for the mobile application, and integrating culturally significant information might enhance the platform's reliability and effectiveness for students. These findings may inform the construction of a more streamlined and user-centric Rosetta Stone platform, more effectively catering to the requirements and preferences of its users.

IV. Discussion

The study's results provide useful insights into the perspectives and attitudes of first-year students at Hassan 2nd University of Casablanca regarding the Rosetta Stone platform for learning English. The quantitative results indicated that students had a moderate level of ease in using the platform (Mean = 2.97, SD = 0.93) and considered it relatively beneficial (Mean = 2.89, SD = 0.99). However, their overall attitude toward the platform was less positive (Mean = 2.52, SD = 0.87). The correlations between these categories were modest. There were significant positive associations between perceived ease of use and perceived usefulness ($r = 0.570, p < 0.01$), perceived ease of use and attitude ($r = 0.415, p < 0.01$), and perceived usefulness and attitude ($r = 0.474, p < 0.01$). The results were further enhanced by qualitative data obtained via open-ended questions, which revealed certain aspects that students valued and places where they recommended improvements.

Analysis of Quantitative Results:

The moderate positive correlations between the constructs suggest that students who see the Rosetta Stone platform as simple to use are more likely to view it as useful. This, in turn, positively influences their overall attitude toward the platform. This is consistent with the Technology Acceptance Model (TAM), which suggests that users' attitude toward technology is influenced by their perception of how easy it is to use and how useful it is. Nevertheless, the comparatively low average score for attitude implies that relying just on ease of use and utility may not be enough to cultivate a favorable overall attitude. Other aspects might contribute to this, such as individual learning preferences, the significance of the material, and the overall user experience.

The qualitative research yielded more profound insights into the facets of the Rosetta Stone platform that students found beneficial and those that need improvement. The aspects that received the greatest praise were interactive activities, visual assistance, pronunciation practice, and progress monitoring. These factors enhance the learning process by creating an interesting and effective atmosphere that meets the students' demand for interactivity and assistance.

However, several areas that may be improved were found. Many students were very concerned about technical concerns, namely related to voice recognition technology and time tracking. These issues not only impeded their acquisition of knowledge but also resulted in feelings of dissatisfaction. Recommendations for more adaptability and personalized time management indicate a need for a more customized method of language acquisition.

Students suggest providing a mobile app user application (UI) that is easier to use and has improved usability features. Students' suggestions also include more interactive components, such as educational games and opportunities for real-time conversation practice, to enhance motivation and pleasure. In addition, it was recommended to incorporate culturally relevant material to enhance the platform's reliability and efficacy among Moroccan students.

Practical Implications:

The findings obtained from this research have several practical consequences for the improvement and execution of the Rosetta Stone platform in educational environments. Prioritizing the resolution of the identified technical problems is crucial to providing a seamless and hassle-free customer experience. Improving the platform's adaptability in terms of scheduling and offering customized learning routes may better accommodate the distinct requirements of students with different degrees of competence.

Research Implications:

This research emphasizes the significance of integrating quantitative and qualitative methodologies to get a holistic understanding of students' encounters with educational technology. Subsequent investigations should further examine the variables that impact students' perspectives on language learning platforms, considering both the technical and pedagogical elements. Longitudinal studies have the potential to provide valuable insights into the progression of students' views and attitudes over time as they continue to utilize the platform.

Limitations:

Although this research offers significant information, it does have limits. The sample was restricted to freshmen at a solitary institution, perhaps limiting the applicability of the results to other settings. Moreover, self-reported data might be influenced by social desirability bias, and the cross-sectional design only captures impressions at a certain moment, thereby failing to account for temporal changes.

This research emphasizes the need to continuously improve and enhance the Rosetta Stone platform to effectively cater to the requirements of students. To boost the usefulness of the platform as a language learning tool, it may fix technical concerns, provide more flexible and individualized learning experiences, and include interesting and culturally appropriate material. These enhancements may eventually bolster positive student attitudes and increase learning results, so supporting the overarching objective of augmenting English language competency in the Moroccan educational system.

V. Conclusion

The study in hand explored the attitudes of first-year students at Hassan 2nd University toward the use of Rosetta Stone platform for learning English. The study used the Technology Acceptance Model (TAM) as a framework. The findings revealed that students' perception regarding the usefulness of this platform, its ease of use and their overall attitude toward using it were moderate. However, the results indicated that Rosetta Stone was user-friendly according to the students' opinions. The correlations found between these constructs suggest that the ease of use and the usefulness are important, yet not enough to determine the technology acceptance level of the students toward Rosetta Stone. Qualitative data emphasized students' appreciation of certain features of Rosetta Stone such as: interactive activities and feedback options. However, the respondents detected some technical and content issues with the platform. Addressing these imperfections may improve the quality of the platform and therefore enhance students' learning outcomes as well as their satisfaction.

The paper highlights the necessity of improving the use of technology in higher education in Morocco to help meet the evolving needs of our students as part of the higher education system reform. The study recommends further future research in this area of study to include broader samples and longitudinal investigation. These insights might contribute to the enhancement of language proficiency and educational reform goals in Morocco.

References

- [1]. Benhima, M. (2021). English Language Teaching In Higher Education In Morocco. Sidi Mohamed Ben Abdellah University.
- [2]. Bettioui, R. (2016). The Attitudes Of Moroccan Students Toward Using Technology In Learning Foreign Languages: University Ibn Zohr Flhs's English Studies Department As A Case Study. *Academia.Edu*. <https://www.academia.edu/35254187>
- [3]. Bourray, S. (2023). The Quality Of Higher Education In The Digital Age And The Challenge Of Employability. *African Scientific Journal*, 3(18), 17-35. <https://doi.org/10.5281/zenodo.7941939>
- [4]. Choi, M. (2016). A Concept Analysis Of Digital Citizenship For Democratic Citizenship Education In The Internet Age. *Theory & Research In Social Education*, 44(4), 565–607. <https://doi.org/10.1080/00933104.2016.1210549>
- [5]. Davis, C. (2021). *Digital Civics And Citizenship: An Applied Approach*. Rowman & Littlefield.
- [6]. Davis, F. D. (1989). Perceived Usefulness, Perceived Ease Of Use, And User Acceptance Of Information Technology. *Mis Quarterly*, 13(3), 319-340. <http://www.jstor.org/stable/249008>
- [7]. 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>
- [8]. Debataraaja, C. S., & Daulay, S. H. (2024). Effectiveness Of Rosetta Stone As Media To Increase Vocabulary Skill In Efl Senior High School. *Jurnal Ilmu Pendidikan (Jip) Stkip Kusuma Negara*, 15(2), 150–158. <https://doi.org/10.37640/jip.v15i2.1846>
- [9]. El Bettioui, R. (2016). The Attitudes Of Moroccan Students Toward Using Technology In Learning Foreign Languages: University Ibn Zohr Flhs's English Studies Department As A Case Study. University Hassan 2nd Casablanca.
- [10]. El Ferouali, S., & Ouhadi, S. (2023). Digital Transformation In Moroccan Higher Education: A Literature Review. *African Journal Of Management Engineering And Technology*, 1(2), 135-148.
- [11]. Emejulu, A., & Mcgregor, C. (2019). Toward A Radical Digital Citizenship In Digital Education. *Critical Studies In Education*, 60(1), 131–147. <https://doi.org/10.1080/17508487.2016.1234494>
- [12]. Griffin, R. A., Martinez, J., & Martin, E. P. (2014). Rosetta Stone And Language Proficiency Of International Secondary School English Language Learners. *Ecv: Engaging Cultures And Voices*, 6, 36-69. Retrieved From <https://www.researchgate.net/publication/261360061>
- [13]. Kumari, N., & Thenmozhi, M. (2023). Computer Assisted Language Learning. *International Journal Of Technology In Teaching And Learning*. Retrieved From <https://www.researchgate.net/publication/372371825>
- [14]. Marikyan, D., Papagiannidis, S., & Stewart, G. (2023). Technology Acceptance Research: Meta-Analysis. *Journal Of Information Science*, 1-22. <https://doi.org/10.1177/01655515231191177>
- [15]. Mattson, K. (2017). Digital Citizenship In Schools: Nine Elements All Students Should Know. *International Society For Technology In Education*.
- [16]. Moroccan Ministry Of Higher Education, Scientific Research And Management Training. (2021). *Blended Learning In Moroccan Universities: Achievements And Future Challenges. Dialogue 5+5 For Research, Innovation And Higher Education, Action A7: "Blended Learning For Increasing Youth Opportunities"*.
- [17]. Mossberger, K., Tolbert, C. J., & Mcneal, R. S. (2010). *Digital Citizenship: The Internet, Society, And Participation* (2. [Print]). Mit Press.
- [18]. Mugo, D. G., Njagi, K., Chemwei, B., & Motanya, J. O. (2017). The Technology Acceptance Model (Tam) And Its Application To The Utilization Of Mobile Learning Technologies. *British Journal Of Mathematics & Computer Science*, 20(4), 1-8.

<https://doi.org/10.9734/bjmc/2017/29015>

- [19]. Ribble, M., & Bailey, G. (2007). Digital Citizenship In Schools. International Society For Technology In Education.
- [20]. Sandhu, S. (2009). Strategic Communication: An Institutional Perspective. International Journal Of Strategic Communication, 3(2), 72–92. <https://doi.org/10.1080/15531180902805429>
- [21]. Simões, A. R., Senos, S., & Coronha, M. (2024). Digital Citizenship Education – Training Opportunities For Foreign Language Teachers. Educational Media International, 61(1–2), 75–85. <https://doi.org/10.1080/09523987.2024.2357952>
- [22]. Slimani, N., & Jabali, K. (2023). Language Learning Platforms: Connecting The Dots Around Rosetta Stone Platform. European Journal Of Education Studies, 10(7), 101-111. <https://doi.org/10.46827/ejes.v10i7.4876>
- [23]. Smith, R. M. (Ed.). (2011). Citizenship, Borders, And Human Needs. Univ. Of Pennsylvania Press.
- [24]. Work, N. (2014). Rosetta Stone: Compatible With Proficiency-Oriented Language Instruction And Blended Learning. Journal Of Technology In Teaching And Learning, 10(1), 35–52. Retrieved From <https://sictet.org/Main/Journals/Ijtt>