

User Experiences of Immersion-Based Language Learning with Rosetta Stone: Tertiary Education Case Study

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Abstract

This study explores the effectiveness of the Rosetta Stone language learning platform for enhancing English language skills among First-year Artificial Intelligence (AI) students at Ibn Tofail Sciences Faculty. Through a Google Form survey distributed to first-year AI students, the research explores user experiences with various platform aspects in amalgamation with synchronous class input. Technological Pedagogical Content Knowledge (TPACK) serves as a conceptual lens for examining the integration of technology within teaching a blended English module at the sciences faculty. Results indicate high satisfaction with the immersive experience. Underscoring the importance of integrating immersive language learning into AI curricula. The findings contribute to the ongoing discussion on the implementation of CALL tools in higher education.

Keywords: CALL technology, Rosetta Stone, TPACK, Synchronous learning, Blended Learning

Introduction

The domain of English language education intertwined with technology has witnessed substantial shifts in the past decade, attributable to the remarkable integration of digital technology as a pedagogical instrument. As per Miraoui & Abdellatif (2020), efforts to implement new orientations in higher education are evident. Within the ongoing effort to modernise teaching using digital tools and techniques, corporate Online Open Courses have been introduced. Correspondingly, Morocco is taking serious steps towards the implementation of such programs in higher education. Such implementation is introducing modernised teaching methods illustrated in virtual and flipped classrooms.

Evidently integrated into tertiary education curricula (Riyami, 2018). One such area is the introduction of an immersive language learning model via the Rosetta Stone platform. By integrating Rosetta Stone into a blended learning modality within Moroccan universities, institutions can leverage the platform's interactive features, personalised learning paths, and immersive language experiences to enhance students' language acquisition skills and prepare them for the challenges of the globalised world.

Sifting the literature, we come across numerous studies that have assessed the effectiveness of such programs. Santos (2011) conducted a software review of the Rosetta Stone Portuguese program, noting its attractive interface while also highlighting a notable deficiency in contextual materials and an inability to respond to spontaneous student speech. Correspondingly, Santos (2011, p. 187) stated the following: “a rather poor and limited version of what one would encounter in a real-life conversation” Moreover, DeWaard (2013) conducted a study investigating the potential of Rosetta Stone to replace traditional classroom instruction.

While the study concluded that Rosetta Stone is "not a viable replacement of current instruction at the postsecondary level" (DeWaard, 2013, p. 61), it provides valuable insights into the role of technology in language learning. What makes DeWaard's study significant is that she has based her assessment on personal experience and her expertise in language teaching. DeWaard (2013), too notes the appealing interface of the Rosetta Stone program but finds it lacking in several areas. Specifically, she notes the following: shaky theoretical foundations, cultural inauthenticity, and the overall limitations of a nonhuman system, among other limitations. She further accentuates that Rosetta Stone is not a viable replacement for current instruction at the postsecondary level.

While Rosetta Stone may not be a complete replacement for traditional instruction, it can serve as a valuable supplementary tool. By integrating Rosetta Stone into a blended learning approach, educators can leverage its benefits while addressing the limitations identified in DeWaard's study. Agreeably, Nielson (2011) Nielson asserts that while programs like Rosetta Stone present appealing options, they currently fall short of providing a viable alternative to human support or interaction. While Rosetta Stone offers several advantages in language learning, it is crucial to consider its limitations and integrate it with other language learning approaches to ensure comprehensive language development.

Given the limited research on Rosetta Stone's effectiveness, coupled with the mixed findings from existing studies, there is insufficient evidence to definitively recommend it as a reliable language-learning tool (Lord, 2016). However, we ought to state that the Rosetta Stone platform has emerged as a popular tool for language learning among educators and learners alike. Akbari & Rezaei (2016) conducted a study evaluating the effectiveness of Rosetta Stone in language learning. Their findings suggest that the platform's immersive and interactive approach can enhance learners' proficiency in various areas, including grammar, vocabulary, and listening comprehension. In a similar line, Chapelle (2014) also contributed to the positive assessment of Rosetta Stone, highlighting its effectiveness in improving learners' listening and reading comprehension skills.

However, it is essential to acknowledge the criticisms raised by scholars like Rifkin (2003). Rifkin expressed concerns about the platform's limited opportunities for learners to practice speaking skills and interact with native speakers, which may impede the development of communicative competence. Overall, we ought to state the significance of integrating Rosetta Stone's syllabus into a blended module to harness the platform's strengths. Coupled with the instructor's input, students can benefit from a blended mode of learning guided by pedagogically driven lesson plans.

This study's significance lies in its focus on undergraduate learners from the Ibn Tofail University faculty of sciences branch AI. By examining factors influencing language learning and the experiences of technology-mediated learning, this research contributes to the existing theoretical frameworks for integrating technology into effective language teaching and learning practices. The findings from this study have the potential to enrich our understanding of the interplay between language learning factors and technology-mediated instruction, providing valuable insights and references for future research in this field.

By identifying the strengths and weaknesses of the Rosetta Stone platform, this study contributes to the development of effective blended learning English language teaching programs in higher education. The present exploration employed a survey to comprehensively explore students' experiences with the Rosetta Stone platform in a blended learning context. Moreover, the TPACK framework presents a lens through which the survey questions will be analysed. The following figure illustrates the triangular lens TPACK framework, which provides for a richer analysis.

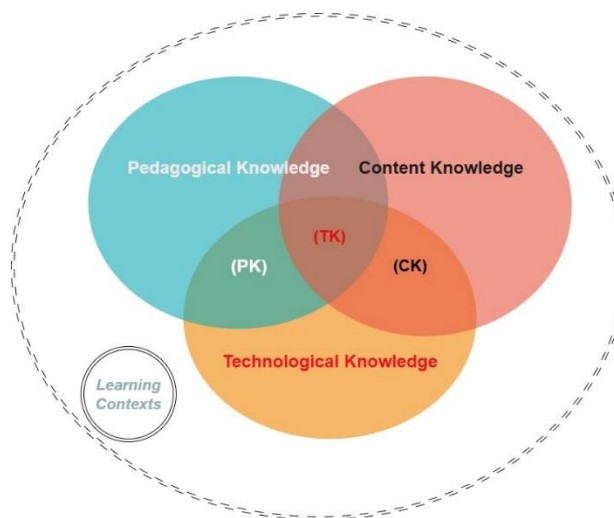


Figure 1. TPACK Framework

Note. The figure represents the triangular interconnectedness of the TPACK framework. The image has been creatively adapted from the <http://tpack.org> website. The source of the image is attributed to <http://tpack.org>

Methods

This study employed a mixed-methods approach, combining qualitative and quantitative data collection and analysis, to explore students' experiences of using Rosetta Stone for English skills development in a blended learning environment. Quantitative data is gathered through scaled questions, including Likert-type scales assessing satisfaction with various aspects of the program (e.g., lesson design, visual elements, overall learning experience) and numerical scales evaluating comfort levels with the Rosetta Stone platform. Checklist-style questions allow students to select specific features or aspects of the platform and the English module that they find most beneficial. These structured questions provide quantifiable data suitable for statistical analysis, enabling the identification of trends and patterns in student responses. Qualitative data is collected through open-ended questions, prompting students to articulate challenges encountered, perceived improvements in English skills, and any other comments or feedback regarding their learning experience. These open-ended responses offer rich, descriptive insights into the nuances of student experiences, providing context and depth to the quantitative findings. The qualitative questions were analysed via Taguette, a qualitative data analysis tool. Specifically, the survey probes student perceptions of vocabulary expansion, the impact of the program on their confidence in using English, and the perceived relevance of the acquired skills to their academic pursuits within the AI field. The survey instrument utilised has been designed to elicit comprehensive feedback from first-year Artificial Intelligence (AI) students at the Faculty of Sciences regarding their experience with a blended learning approach. The program integrates the Rosetta Stone platform with synchronous classroom instruction, focusing on the development of English grammar and vocabulary skills. The survey was distributed via a Google Classroom link and WhatsApp group to students, and 132 responses were received. It aims to provide insights for program improvement and ensure the curriculum effectively supports the specific language needs of AI students in their academic development. A random sampling approach was employed, targeting all first-year faculty of sciences branch AI students enrolled in the English course utilising the blended learning module. The method mentioned allocated ease and inclusion in data collection to get general and maximum responses from students. The survey instrument comprised several sections designed to assess various aspects of the instructed module. By analysing the responses to these questions, valuable insights will be gained into students' experiences with Rosetta Stone as a language learning tool utilised in a blended mode. The following illustrates a summarised breakdown of survey contents.

Question Type	Contents
Scaled Questions (1-10 and Likert scales)	<ul style="list-style-type: none"> ➤ Familiarity and Comfort ➤ Lesson Design ➤ Visual Elements and Presentations
Multiple Choice/Checklists	<ul style="list-style-type: none"> ➤ Vocabulary Expansion and English Skill Improvement ➤ Visual Elements and Presentations ➤ Grammar improvement
Open-Ended Questions	<ul style="list-style-type: none"> ➤ Challenges and Benefits ➤ Overall Learning Experience and Recommendations ➤ Additional Comments and Feedback

The data has been analysed using the TPACK framework. The following table illustrates the breakdown of data analysis.

Table 1. TPACK Lens for Question Mapping

TPACK Area	Description
Technological Knowledge (TK)	Comfort with the platform, technical challenges, helpful features.
Pedagogical Knowledge (PK)	Lesson design, learning activities, impact on teaching strategies.
Content Knowledge (CK)	Vocabulary expansion, grammar improvement, relevance of content to studies.
Technological Pedagogical Knowledge (TPK)	How technology enhances specific teaching methods.
Technological Content Knowledge (TCK)	How technology facilitates understanding of the content.
Pedagogical Content Knowledge (PCK)	How the content is presented and its effectiveness for learning.
Technological Pedagogical Content Knowledge (TPACK)	The complex interplay of all three areas; overall learning experience and impact on skills.

Results and Analysis

This question directly assesses the user's existing technological knowledge, specifically related to the Rosetta Stone platform. It gauges their comfort level and prior experience with the technology itself. Understanding the user's initial familiarity is crucial for tailoring instruction and support. Someone "not familiar at all" will require more basic guidance than someone "very familiar."

How familiar are you with the Rosetta Stone platform before taking the module?

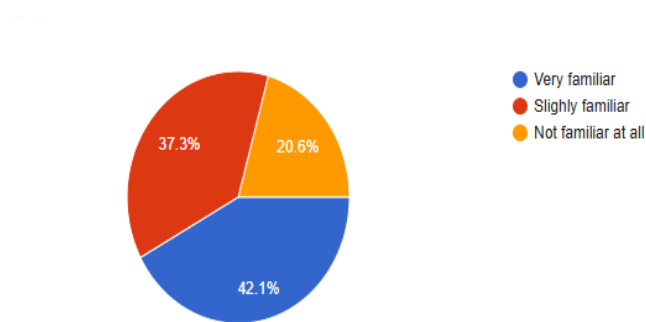


Figure 1. Platform familiarity

The question on students' comfort level in using the platform directly assesses the user's technological knowledge and comfort level, specifically with the Rosetta Stone online learning platform. It's about their ability to use and navigate the digital tool. This is crucial for understanding the level of technical support or training users might need. Low comfort levels suggest a need for more guidance on using the platform's features. The use of a 1-10 scale provides more granular data than the previous "familiarity" question. It allows for a more nuanced understanding of user comfort levels and can help identify specific areas where users might need support.

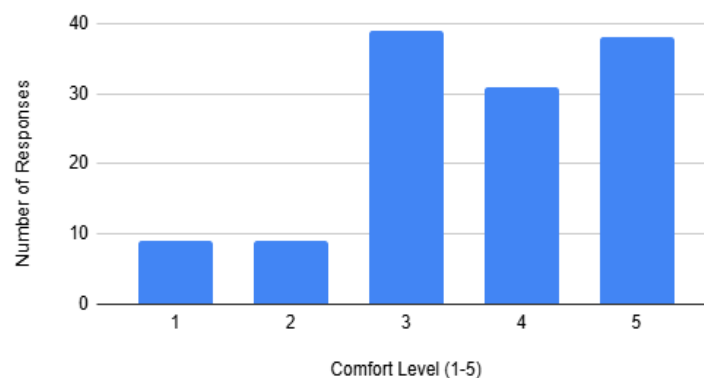


Figure 2. Data on Comfort Levels with Rosetta Stone

The satisfaction question directly addresses the effectiveness of the *lesson design*. This includes how the content is organized, the instructional strategies used, the pacing, the overall structure of the learning experience, and the platform's input alignment with the synchronous input. A clear majority of respondents are either satisfied or very satisfied (78.1% combined). This indicates a generally positive perception of the lesson design in the blended module. The question and its responses reveal the overall effectiveness of the TPACK integration. The high satisfaction suggests a successful combination of technology, pedagogy, and content in the lesson design. The alignment of learner satisfaction with lesson design is crucial and informative for improving teaching practices and optimizing the learning environment.

How satisfied are you with the overall lesson design of English for academic purposes module?

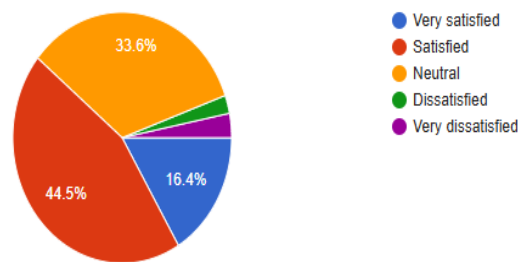


Figure 3. User Satisfaction with the Synchronous Design

The question: "Which specific features of the Rosetta Stone platform do you find most helpful in supporting your learning experience?" By probing into the helpfulness of specific features in supporting students' learning experiences, the question essentially explores the intersection of technology, pedagogy, and content. It seeks to understand how these three elements work together to facilitate learning and English skill improvement. Illustratively, the data strongly suggests that the vocabulary-learning features of Rosetta Stone are the most effective and appreciated by users. This could include features like image-based learning, spaced repetition, or interactive vocabulary exercises. The significant emphasis on "Speaking Confidence" highlights the platform's success in building learners' confidence to speak English. This could be due to features like pronunciation feedback, practice dialogues, or a low-pressure learning environment.

Nevertheless, the lower response counts for "Interaction" suggest that this aspect is less effectively supported by the platform. This could indicate a need for more interactive exercises and real-time conversation practice. The relevance of this question is crucial in identifying successful TPACK integrations and areas where the interplay could be improved. For example, if "Vocabulary" is highly rated, it suggests a strong TPACK connection where the technology, in amalgamation with the synchronous input, effectively delivers vocabulary content in a pedagogically aligned manner. In summary, this question is best categorized under Technological Pedagogical Content Knowledge (TPACK) since it explores the complex interplay of technology, pedagogy, and content within the specific context of the blended module.

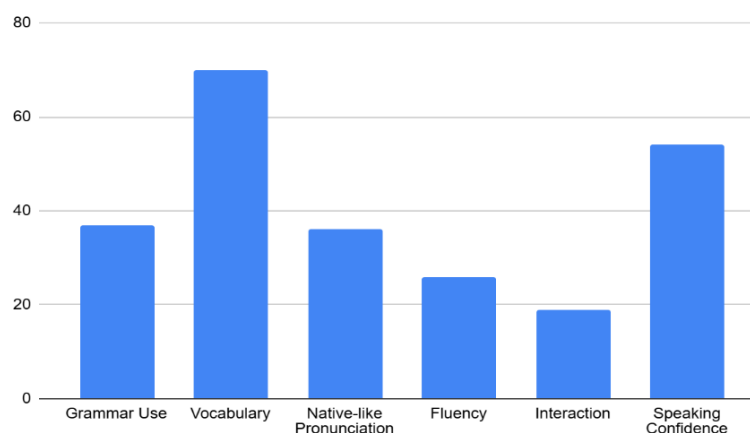


Figure 4. TPACK Analysis of University Students' Feedback

The question touches on PCK. The perceived benefit of the skills is related to how the content was presented and taught. A significant majority, 59.5%, of respondents believe that the skills learnt in the module will be beneficial in their academic life. This indicates a substantial perceived value of the module's content and its relevance to their academic pursuits. The substantial majority response of "Yes" suggests that the module is generally perceived as valuable and relevant to academic life. This is a positive indicator of the module's effectiveness and its alignment with students' learning needs. Effective PCK ensures that the content is not only learnt but also seen as applicable and valuable by the learners.

Do you believe that the skills learned in this module will be beneficial in your academic life?

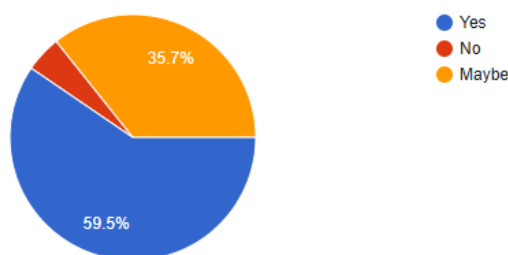


Figure 5. Module Applicability to Academic Life

As can be seen from the pie chart, Content Knowledge (CK) is the core of the question. It directly probes into learner's perception of their vocabulary growth. It's about their understanding and awareness of their own progress in learning new vocabulary. There's a secondary connection to PCK. The learner's perception of vocabulary growth is influenced by how the vocabulary was taught and presented in the course. Effective PCK means the teacher's pedagogical approaches successfully facilitated vocabulary acquisition, making the content accessible and memorable. However, the question itself doesn't directly ask *how* the vocabulary was taught, only if it was perceived as expanded.

Do you feel your vocabulary in English has expanded since starting your English course?

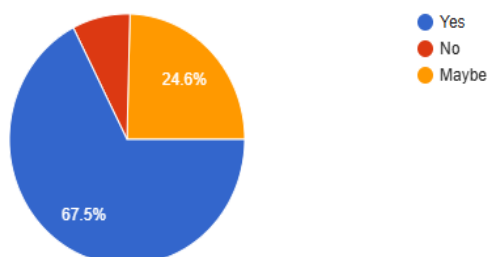


Figure 6. Students' vocabulary growth

The question: "How has this English module helped you improve your English skills? (Please select all that apply)", the question touches on PCK. For content, the graph highlights how the content in the English blended module was pedagogically delivered. The module appears to be successful in conveying vocabulary, grammar, and speaking skills. The strong results in vocabulary and speaking suggest effective teaching strategies like direct instruction of vocabulary, Interactive speaking exercises, opportunities for practice and feedback. The most

significant impact of the course appears to be in vocabulary development, with nearly 80% of respondents indicating improvement in this area.

This suggests that the course effectively teaches new words and phrases. A substantial number of respondents (around 58%) reported improvements in grammar. This indicates that the course likely covers grammatical rules and structures effectively. Similar to grammar, speaking fluency has seen a positive impact, with approximately 59% of respondents reporting improvement. While not as high as vocabulary, grammar, and fluency, a considerable portion of respondents (around 48%) felt their confidence in using English improved. Nevertheless, only a tiny percentage (around 5%) felt the course didn't help them at all. This suggests that the course has been generally adequate for the majority of participants. Significantly, learner responses can provide indirect feedback on the effectiveness of the teaching approaches in fostering skill development.

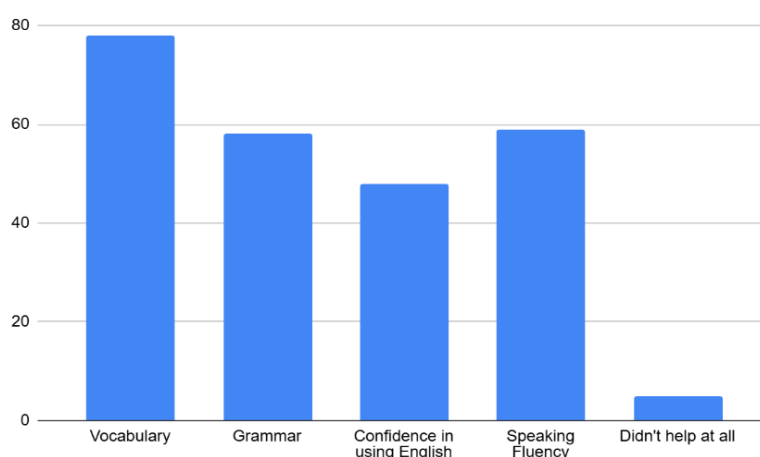


Figure 7. Learner-Reported Outcomes

Overall Satisfaction question. At first glance, the results seem somewhat positive: A combined 55.1% of respondents reported being either satisfied or very satisfied. This suggests that the majority of users had a positive experience with the platform after the fixes were implemented. However, some areas warrant attention. A significant 37.8% of respondents remain neutral. This indicates that a large portion of users aren't particularly impressed or disappointed with the platform. Thus, open-ended questions were embedded into the exploration to shed light on the reasons behind their reported satisfaction levels. Considerably, 12.6% of users are still dissatisfied or very dissatisfied. While this is a smaller percentage, it represents users who were likely having a negative experience.

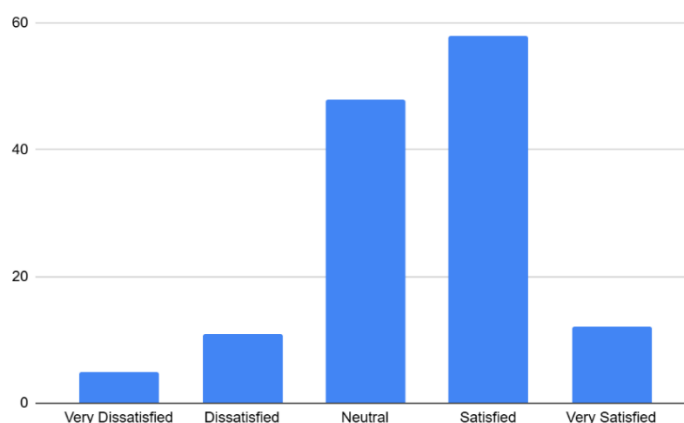


Figure 8. Overall satisfaction

Qualitative Findings

Three themes have emerged from the thematic analysis: Technical Challenges. For example, some participants stated that they suffered from "slow connections" and "Microphone issues." They have also mentioned that "Sometimes the 'Reading loud' part does not record my voice clearly, so Rosetta takes it as a wrong answer," etc. Moreover, for Content-Related Challenges, the participants stated the following: "It was boring, the design of the page and the type of exercises do not urge you to keep learning", etc. Last, positive experience: Some participants reported that they had a positive experience, stating that "I didn't find any challenges" and "I love this platform; I learned many things," etc. More than half of the responses relate to technical difficulties, which should be addressed as a high priority. Nearly 20% of users reported issues with the learning content itself. However, the 19.2% with positive experiences is lower than ideal. Improving the platform's technicity and making content more interactive could increase this percentage. Qualitative findings streamline key insights into the challenges encountered by students utilising the platform. Furthermore, they advocate for a more efficient and user-friendly design, taking into consideration challenges reported by students to enhance user experiences.

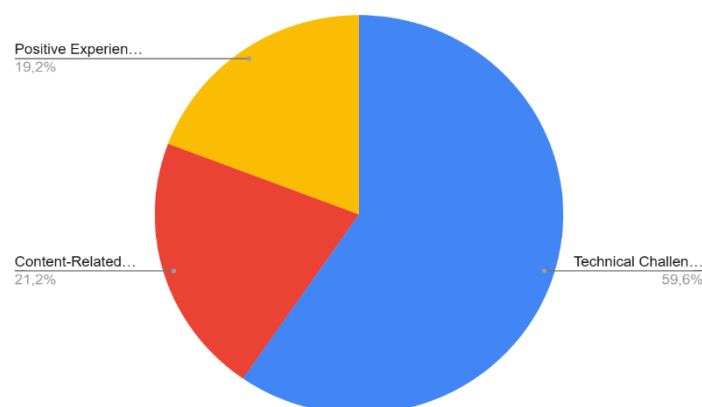


Figure 9. Distribution of User Feedback Themes

Conclusion

The role of teachers has seen a significant shift in the 21st century. Beyond simply integrating technology, educators must now expertly bridge the gap between synchronous and asynchronous learning environments. Both approaches are valuable: synchronous learning fosters community, while asynchronous learning. The latter is facilitated by the immersive Rosetta Stone platform, which offers self-paced learning. However, while Rosetta Stone excels at providing asynchronous support, it has limitations. Therefore, teachers are crucial in providing guidance and support, ensuring a balanced language development. Through the integration of the Rosetta Stone with other language-learning approaches, teachers navigate both synchronous and asynchronous spaces, leveraging the strengths of each to maximize student achievement and skill improvement. Overall, the study's results highlight the significance of integrating Rosetta Stone's syllabus into a blended module to harness the platform's strengths. Coupled with the instructor's input, students can benefit from a blended mode of learning guided by pedagogically built lesson plans.

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