

Students' perceptions of interactive live worksheets in online French language learning

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ABSTRACT

Keywords: live worksheets, gamification, French as a Foreign Language, motivation, Jamaica, Foreign Language Excitement (FLEX)

Digital tools are increasingly used in online foreign language learning, yet limited research has examined students' perceptions of live worksheets, particularly in Caribbean higher education. This exploratory descriptive study investigated 16 undergraduate students' perceptions of live worksheets in a 15-week beginner French course at a Jamaican university, focusing on benefits, limitations, motivation, and the instructor's role. Using convenience sampling, data were collected through an online questionnaire comprising open- and closed-ended items. Quantitative data were analyzed using descriptive statistics, while qualitative responses underwent thematic analysis. Findings indicate that students perceived live worksheets as beneficial for engagement, motivation, and Foreign Language Excitement, while immediate feedback supported self-assessment, recall, and application of linguistic knowledge. However, inaccurate automated responses and difficulties with diacritics presented challenges. Students emphasized the instructor's role in verifying accuracy, clarifying misunderstandings, and facilitating feedback. The study highlights the potential of live worksheets as formative assessment tools in foreign language learning.

Introduction

Information and Communication Technology (ICT) continues to transform the educational landscape (Elmi et al., 2024), providing access to diverse digital platforms and online resources (Kiong, 2022) while enabling educators to diversify pedagogical practices in response to the demands of contemporary learning environments (Ahmad et al., 2024). Within higher education institutions (HEIs), technology integration has become increasingly important not only for course delivery but also for fostering engagement, interaction, and formative assessment in online and hybrid classrooms (Madden et al., 2025). The COVID-19 pandemic accelerated this shift, forcing universities worldwide to transition rapidly to remote learning and compelling educators to adopt innovative strategies to sustain student participation and motivation in virtual environments (Ali & Khoza, 2023). Although many institutions have resumed face-to-face instruction, online and hybrid modalities remain important because they offer flexibility to

students who balance employment, commuting challenges, and financial constraints, particularly in developing contexts (Madden et al., 2024). Regardless of the instructional format, it is the role of educators to find enticing ways to grab students' attention without diminishing academic integrity. Fuertes et al. (2023) and Pham (2022) cite a correlation between student engagement and academic achievement. In a foreign language (FL) class, teachers have an even greater responsibility to ensure continuous interaction and engagement so that learners develop foreign language enjoyment (Zeng, 2021) and reduce foreign language anxiety (FLA) (Yan & Liang, 2022), all while actively co-constructing meaning.

The move toward online instruction presents both opportunities and pedagogical challenges (Pike et al., 2022). Language learning depends heavily on interaction, repetition, collaboration, immediate feedback, and continuous communicative practice (Sadiqzade, 2025; Wedlock & Binnie, 2025). However, maintaining these elements in virtual classrooms can be difficult, especially when students experience disengagement, reduced motivation, or FLA. Consequently, online French language classes require carefully designed pedagogical approaches and interactive tools to sustain learner participation and promote meaningful language development (Bahari et al., 2025). The offering of online French courses has therefore become increasingly relevant in higher education because it expands access to language learning opportunities for students who may otherwise be unable to attend face-to-face classes due to geographic, financial, or scheduling limitations. At the same time, online FL instruction requires educators to rethink how engagement, formative assessment, and communicative practice are facilitated in technology-mediated environments (Xerri et al., 2025).

As ICT continues to shape language education, there is growing reliance on Computer-Assisted Language Learning (CALL), Mobile-Assisted Language Learning (MALL), and Technology-Assisted Language Learning (TALL) tools to support communicative and student-centered learning experiences (Khan & Tufail, 2020; Nuraeni, 2021). Interactive platforms such as Kahoot!, Quizlet, Jeopardy-style games, and live worksheets are increasingly integrated into online FL instruction as mechanisms for engagement, reinforcement, and formative assessment (Le & Prabjandee, 2023; Madden, 2022; Sadeghi et al., 2023). These tools often fall within the broader concept of gamification, which incorporates game-like elements to improve motivation, participation, and academic performance (Al-Dosakee & Ozdamli, 2021; Luo, 2023).

Among these tools, Liveworksheet has gained growing popularity because it transforms traditional worksheets into interactive digital activities that provide immediate feedback, self-correction, and autonomous practice opportunities (Pradnyadari et al., 2025). Accessible via *Liveworksheets.com*, Widiantho et al. (2023) indicate that the platform offers an assorted collection of materials that have been applied across several disciplines, including mathematics, social sciences, physics, and foreign languages (Ariskasari & Sulisworo, 2021; Hidayah & Asari, 2022; Roswahyuliani et al., 2024), as well as at the primary school level (Pulungan et al., 2022). In FL contexts specifically, Ryabchikova et al. (2020) argue that live worksheets support communicative competence and linguistic development, while Madden et al. (2023; 2024) highlight their usefulness in promoting vocabulary acquisition, recall, learner autonomy, and application of knowledge.

Despite these reported affordances, important pedagogical concerns remain insufficiently explored. Existing research has not adequately examined how students perceive the effectiveness, limitations, and motivational impact of live worksheets in online French language classes. Similarly, limited attention has been paid to the teacher's role in mediating the use of these tools through guidance, explanation, feedback, and pedagogical scaffolding. These issues are especially significant because digital tools alone do not guarantee meaningful learning; rather, their effectiveness depends heavily on how teachers integrate them pedagogically and how students experience and interpret their use within the online classroom.

Against this background, the present study explores students' perceptions of the use of live worksheets in online French classes, focusing specifically on perceived benefits, challenges, motivation, and the role of the teacher in facilitating the learning experience. By addressing these pedagogical concerns, the study contributes to emerging discussions on technology-enhanced FL instruction and formative assessment within online higher education contexts.

Literature review

Foundations of live worksheets

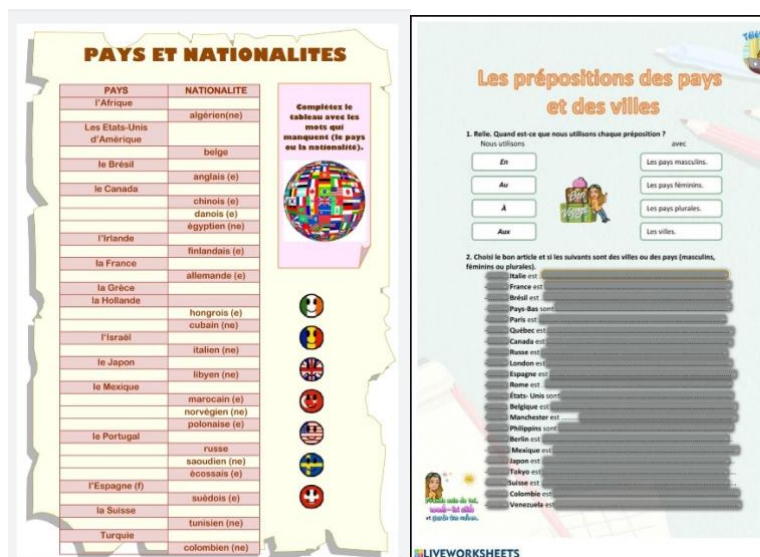
The origins of interactive worksheets in language education can be traced to the early development of Computer-Assisted Language Learning (CALL) during the 1960s and 1970s, when digital exercises primarily emphasized drill-and-practice activities grounded in behaviorist learning theories (Aslan, 2025). These early systems promoted repetition, immediate feedback, and self-paced learning but were criticized for encouraging mechanical language use rather than authentic communication (Warschauer & Healey, 1998). With the emergence of communicative and integrative CALL approaches in the 1980s and 1990s, digital worksheet activities evolved to include more contextualized and learner-centered tasks such as cloze exercises, sentence reconstruction, and multimedia-supported interaction (Warschauer & Healey, 1998; Yang, 2010). The growth of internet-based and Web 2.0 technologies further transformed worksheets into interactive online resources that supported learner autonomy, multimodal learning, and immediate formative feedback (Mayer, 2020; Perumal & Vinothkumar, 2022). Studies have since highlighted the motivational and engagement benefits of interactive worksheets in language classrooms, particularly through the integration of images, audio, gamified elements, and self-assessment opportunities (Le & Prabjandee, 2023; Yusuf & Ali, 2022). However, scholars caution that despite their pedagogical affordances, interactive worksheets may still privilege lower-order cognitive tasks if not carefully designed and mediated by instructors (Mayer, 2020). Consequently, contemporary research increasingly emphasizes the importance of integrating live worksheets within communicative, constructivist, and student-centered pedagogical frameworks rather than treating them merely as automated drill tools.

Definitions and characteristics of live worksheets

Available at Liveworksheets.com, live interactive worksheets are internet-based pedagogical resources that allow instructors to create, customize, or select already prepared ones *from* a worldwide community of teachers, trainers, and pedagogical engineers (Madden et al., 2024; Le & Prabjandee, 2023; Yusuf & Ali, 2022). Also known as interactive e-worksheets (Tressyalina et al., 2023) and interactive digital worksheets (Dewi et al., 2022), live worksheets are conventional paper-based tasks converted into digital formats that allow students to obtain immediate feedback. Live worksheets come in different electronic media, such as animations, images, puzzles, texts, and videos, which can develop different language competencies and help students to feel engaged. The activity types (see examples in Figure 1) include matching, gap fill, drag-and-drop, multiple choice, and short answer questions, which cater to different learning needs and *personalize* the process. Mayer (2020) notes that the multimodal *nature of* live worksheets strengthens comprehension and memory retention. The Liveworksheet.com site has numerous activities in various languages to serve both teachers and students in the pedagogical process, providing convenience and support. Madden and Robinson (2025) emphasize that teachers are constantly on a quest to find strategies and activities to ensure the best learning outcomes.

Figure 1.

Examples of French live worksheet exercises



Benefits and limitations of live worksheets

Live worksheets bring several benefits to teaching and learning. They help instructors to save time on preparing exercises, evaluating students, and providing feedback, and give teachers insights into students' formative performance and progress both in terms of content area and language competence (Le & Prabjandee, 2023; Montalvo-Balbed, 2012). The results from the worksheets inform the future didactic interventions of the teacher. Students also benefit from

immediate feedback. Immediately after submitting their responses, students can see whether their answers were correct. If they chose incorrect answers, they may be prompted to learn from their mistakes. Additionally, live worksheets promote autonomous learning. Instructors can provide self-paced exercises, or students can locate them independently, which encourages self-directed learning (Nuraeni, 2021). This independence allows students to develop their cognitive skills, especially in vocabulary and grammar (Madden et al., 2024). Kopniak (2018) adds that live worksheets help activate acquired knowledge, *develop information-processing skills*, and boost students' motivation to study, while promoting active learning. Le and Prabjandee (2023) agree that the worksheets promote differentiated *instruction and that their unique features enhance students' engagement by making the learning process more entertaining*. Madden et al. (2023) highlight the flexibility of such worksheets, which can be used in both online and in-person classes. They state that the worksheets can be incorporated at different *points* during the lesson, whether to activate *prior knowledge as an icebreaker*, present new content, consolidate learning, reinforce newly taught concepts, or assess and apply new knowledge. Furthermore, the worksheets are user-friendly, and students appreciate their appealing designs (Le & Prabjandee, 2023; Madden et al., 2024).

Although live worksheets *offer* several benefits, they *also have* limitations. Despite their potential to develop *diverse* language competencies, it is difficult to evaluate learners' pronunciation and language fluency *across* contexts (Le & Prabjandee, 2023). There are also technical *challenges, such as the inability to easily add diacritics on a standard keyboard, which may render correct answers incorrect, and other issues related to the algorithm that sometimes produce incorrect answers* (Madden et al., 2023, 2024). For this reason, instructors have to carefully vet the live worksheets and complete them ahead of students to identify any inaccuracies. Additionally, as the worksheets are internet-based, they rely heavily on strong internet connectivity and access to appropriate devices. In the absence of reliable technology or internet access, students will face obstacles in participating effectively in online classes (Sadeghi et al., 2023). Another downside to the worksheets is that they promote individual learning, which limits interpersonal interactions. However, especially in the context of online learning, teachers could discuss the answers openly so that students have an opportunity to participate and learn from each other.

Recent studies on live worksheets in FL teaching and learning

Husain Subroto et al. (2024) conducted a study among 10th-grade students at an Indonesian school to ascertain whether there was a significant improvement in reading skills between students taught *with* live worksheets and those *taught with* traditional paper-based worksheets. The research was quasi-experimental and involved a control class and an experimental class, with the same number of students (36) in each. The study collected data through pre- and post-tests and questionnaires, which were analyzed using SPSS and descriptive quantitative methods. Findings revealed a significant difference in reading scores between the two groups, with the experimental *group showing higher scores*. Students' perceptions of live worksheets were very positive, with the drawbacks noted as very insignificant.

Kholida (2024) examined the use of live worksheets as an English test tool for 34 senior high school students in Indonesia. The study sought to ascertain the perspectives of students and

teachers on the use of live worksheets and the difficulties experienced by teachers using the worksheets as an assessment tool. A descriptive-quantitative method was used, which included observations, questionnaires, and semi-structured interviews. Results showed that live worksheets are considered positive as they are user-friendly, flexible, and efficient, and they facilitate grade management and provide good feedback. Specifically for the students, live worksheets are praised for their ease of use and capacity to motivate learning and develop skills. However, challenges include academic dishonesty and worksheet customization.

Rusdan and Mulya (2023) used live worksheets to measure students' cognitive learning outcomes among 72 grade-11 students at an Indonesian high school. The data collection methods included a questionnaire and tests as assessment materials. Using univariate and bivariate analyses in SPSS, the results showed that the average value of the group that used live worksheets was higher than that of the non-experimental group. There was a significant difference in the effect of the pre- and post-test learning outcomes on students who used live worksheets.

The studies highlighted in this section show the use of live worksheets in different contexts to investigate different elements, such as reading, effectiveness and difficulties, cognitive learning outcomes, and speaking confidence and motivation. All of the studies were conducted in Indonesia, at the high school level, and employed quantitative analysis to arrive at their results. Consequently, more research is needed from other jurisdictions and contexts, including higher education, from a qualitative or mixed-methods perspectives. Additionally, studies are limited on the use of live worksheets in FL learning such as French. Furthermore, the literature is limited on the role of the teacher when using interactive worksheets in L2 learning – an area this present study seeks to examine.

Gamification and theories of motivation in FL

The interplay between gamification and FL outcomes is of critical importance, especially as it can be challenging at times to sustain students' FLEX and motivation. FLEX is the ensemble of positive emotions and satisfaction that students experience before, during, and after the language-learning experience, while motivation is the "combination of attempt plus desire to obtain the objective of learning the language plus desirable attitudes towards learning the language" (Alizadeh, 2016, p. 11). Gamification refers to the application of game-based elements to non-game contexts with the aim of enhancing student engagement. Luarn et al. (2023) emphasize the positive influence of gamification on motivation, citing its potential to augment the quality of learning experiences. Panmei and Waluyo (2022) endorse the position that gamification strategies in L2 contexts can increase learner motivation and engagement in L2 tasks. In L2 learning, where dedication and persistence are important, gamification provides a promising means to reinforce proficiency development and equip learners for global communication demands in our interconnected world (Madden, 2022; Shen et al., 2024). Furthermore, Panmei and Waluyo (2022) argue that gamification can be instrumental in vocabulary acquisition and retention, as games often invite learners to repeatedly use newly learned vocabulary in context. Moreover, Kayimbaşioğlu et al. (2016) indicate that the use of mobile-assisted language learning (MALL), through learning applications employing gamification, allows flexibility and encourages self-paced learning in diverse contexts, thereby

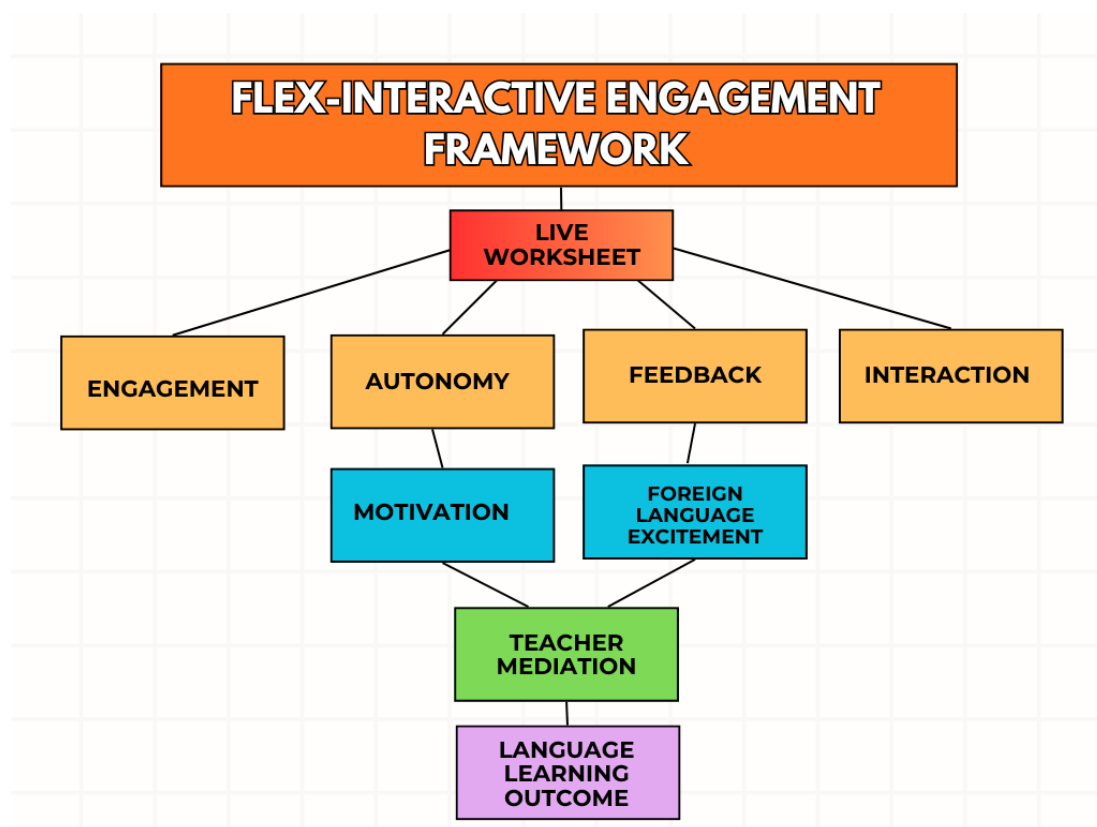
nurturing L2 learning outcomes. Live worksheets, as a form of gamification, can be accessed on the go across different digital devices and completed independently at the learner's convenience, outside of structured classes.

Conceptual Framework

Interactive live worksheets act as a catalyst for engagement, motivation, FLEX, and language development in online language learning. Figure 2 positions interactive live worksheets as the central pedagogical tool influencing students' learning experiences in online foreign language education. The framework integrates principles from CALL, Self-Determination Theory (SDT) (Ryan & Deci, 2000), Sociocultural Theory (Vygotsky, 1978), and research on foreign language enjoyment (Dewaele & MacIntyre, 2014).

Figure 2.

The FLEX-Interactive Engagement Framework



The proposed FLEX-Interactive Engagement Framework (FLEF) conceptualizes interactive live worksheets as the central pedagogical tool shaping students' online foreign language learning experiences. Grounded in CALL, the framework posits that the multimodal and interactive affordances of live worksheets—including drag-and-drop activities, matching exercises, instant feedback, visual prompts, and self-paced tasks—create opportunities for active engagement and cognitive stimulation. These digital affordances encourage students to participate more actively in the learning process while reinforcing vocabulary, grammar, comprehension, and recall. The interactive nature of the worksheets also supports differentiated

learning by accommodating various learning styles, particularly visual and self-directed learners.

At the cognitive and affective level, the framework suggests that the use of live worksheets supports learner autonomy, self-assessment, and metacognitive awareness. Drawing on Self-Determination Theory (Ryan & Deci, 2000), the framework proposes that students experience a greater sense of competence through immediate feedback and error correction, while the flexible and interactive format fosters autonomy and sustained participation. These experiences are susceptible to contributing to increased motivation and the development of FLEX, which is associated with higher levels of engagement, confidence, willingness to communicate, and positive emotional investment in language learning. The gamified and visually stimulating elements of live worksheets may also reduce FLA and transform online classes into more dynamic and enjoyable learning spaces.

The framework further positions the teacher as a critical pedagogical mediator whose role significantly influences the effectiveness of live worksheets in online language instruction. Informed by Sociocultural Theory (Vygotsky, 1978), the framework recognizes that meaningful learning occurs through guided interaction and scaffolding. Consequently, teachers are responsible for clarifying concepts, correcting misconceptions, validating worksheet responses, contextualizing linguistic structures, and facilitating reflective discussion. Rather than replacing instruction, live worksheets function as complementary pedagogical tools whose educational value depends largely on teacher guidance and integration into broader instructional practices. Teacher facilitation also helps students critically interpret feedback, remain motivated, and develop communicative competence more effectively.

Ultimately, the framework proposes that the interaction among live worksheets, learner engagement, motivation, FLEX, and teacher mediation contributes to improved language-learning outcomes in online language classes. These outcomes include enhanced vocabulary acquisition, grammatical reinforcement, reading comprehension, communicative confidence, learner autonomy, and sustained participation in the target language. The framework therefore presents online foreign language learning as a multidimensional process in which technological affordances, emotional engagement, and pedagogical support work together to shape meaningful and effective language acquisition experiences.

Research Questions

To fulfill the purpose of the study, the following questions were used as a guide:

1. What are students' perceptions of live interactive worksheets in French online classes?
2. What is the role of the teacher when integrating live worksheets into foreign language classes?

Methods

Pedagogical Setting & Participants

As summarized in Table 1 below, the study sample consisted of 16 undergraduate French as a foreign language learners with different majors at a Kingston-based university in Jamaica. Their ages ranged from 17 to 40 years. They were all enrolled in the elective course Basic French (Fre3001), taught entirely online and offered by the language unit within the education faculty. The module introduced beginner-level French to non-native speakers through controlled

communicative tasks *set* in everyday contexts (providing basic information about *oneself* and others and *discussing* university life). Students engaged in integrated listening, speaking, reading, and writing activities designed to develop foundational linguistic competence and communicative confidence in French. The module also sought to foster positive attitudes toward foreign language learning while promoting intercultural awareness through exposure to Francophone cultures. Upon completion, students were expected to communicate in basic real-life situations using repair and rephrasing strategies, develop foundational language skills for further French study, and demonstrate appreciation for both their own culture and Francophone cultural contexts. The course was held online over a 15-week period (45 hours) in semester 1 of the academic year 2024-2025 for three hours weekly – one session, which lasted two hours, and another session that lasted one hour. Most of the students ($n = 10$) had some prior exposure to French, whether up to middle school or high school, while the others ($n = 6$) were entirely new to the language. All participants were native speakers of English, who were between A0 and A2 in French on the Common European Framework of Reference for Languages (CEFR). Given the students' level in French, the course was delivered in both French (60%) and English (40%).

Live worksheets were incorporated in eight of the 15 weeks. They were specifically used as reinforcement and application exercises to help learners better grasp the content that was taught. During the two-hour sessions, live worksheets were used at least twice, depending on the topic being explored. The worksheets were used as part of formative assessment and contributed to students' overall module engagement activities, which constituted 15% of the overall course grade. On average, students were allotted 10 minutes to complete a worksheet. Afterward, the answers were discussed in open class.

Convenience sampling was used to select the participants, as they were a part of the course and accessible to the instructor (Golzar et al., 2022), both during the class sessions and in the class WhatsApp group. A criterion to participate in the study was that students needed to have completed at least 10 worksheets within the given semester. Given that the instructor recorded students' completion of each worksheet throughout the semester, all the participants met this basic criterion. Participation was voluntary; interested students were asked to consent to the use of their responses for research purposes after the instructor provided a detailed description of the *study's purpose*. Although *completing* the live worksheets contributed to students' module engagement grade, participation in the research component was entirely voluntary and not assessed. Consequently, students' questionnaire responses were collected and analyzed independently of the grading process to ensure that participation, responses, and findings did not influence their course grades.

Table 1.

Demographic information of participants

Category	Classification
Setting of experiment	University in Kingston, Jamaica
Year of study	1 – $n = 1$ 2 – $n = 3$ 3 – $n = 4$ 4 – $n = 4$ 4 extended – $n = 4$
Frequency of sessions	Two sessions weekly (online)
Duration of sessions	Two hours One hour
Number of participants	16
Gender	10 Male 6 Female
Majors	Business Administration ($n = 5$) Computer Science ($n = 4$) Law ($n = 2$) Communication and Technology ($n = 2$) Pharmacy ($n = 1$) Economics ($n = 1$) Mechanical Engineering ($n = 1$)
Age range	17-22 ($n = 10$) 23-28 ($n = 5$) 35-40 ($n = 1$)
Native language of participants	English
Prior exposure to French	62.5% ($n = 10$) – Yes 37.5% ($n = 6$) – No
Level in French	A0-A2 (CEFR)

Data Collection and Procedures

The data collection instrument used in this study was a Google Forms questionnaire with both open- and closed-ended questions. The questionnaire (see appendix) consisted of 10 demographic questions and 11 questions (including parts a and b) addressing students' perceptions of live worksheets regarding effectiveness, benefits, limitations, classroom use, motivation, and *the* role of the teacher. Of the 11 questions on live worksheets, seven of them were closed-ended, which provided quantitative responses. The open-ended questions allowed for free-form, in-depth perspectives, *yielding* qualitative insights *that* supported the quantitative responses. This approach was necessary as only one data collection instrument was used.

The questionnaire, designed in English, was conceptualized based on a study by Madden et al. (2023) on the same topic at another Jamaican university. Given similar university contexts and an online learning modality, the instrument for this study was a close replica of the established instrument. Their study included 16 participants but adopted a mixed-methods approach. As a precedent was already established, the questionnaire for this study was slightly modified in keeping with the objectives and research questions. After the lead researcher tweaked it, it was then peer-reviewed by three colleagues in applied linguistics. Subsequently, the items were further refined to enhance readability, remove redundancy, ensure comprehension, and guarantee neutrality, as part of content and construct validity (Indu et al., 2025). Thereafter, the

questionnaire was piloted among 10 students, and basic amendments were made to avoid technical or troublesome language and word choice.

After using live worksheets in the first six weeks of classes during a 15-week semester, the instructor (primary researcher) distributed the Google Forms questionnaire during online class and subsequently shared the link in the class WhatsApp group comprising 40 students. Students were given a month to respond to the questionnaire and were reminded at intervals about their voluntary participation.

Participants were informed that the questionnaire contained no identifiable information and were encouraged to respond candidly. They were also advised that no rewards or penalties were associated with their participation or responses and that there were no “right” or “wrong” answers. These measures were implemented to minimize social desirability bias (Bispo Júnior, 2022) and promote authentic responses, given that the instructor was the lead researcher.

At the end of the questionnaire, students consented to whether they wanted their responses to be used as part of the research dataset.

Data analysis

Quantitative data were analyzed using descriptive statistics. Quantitative data were compiled from the responses of 16 FFL students and descriptively tabulated in Google Forms to generate frequencies and percentages. The qualitative data obtained from the questionnaire were analyzed through thematic analysis, using Braun and Clarke’s (2021) six-step process: (1) familiarizing oneself with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing potential themes, (5) defining and naming themes, and (6) writing up. The results of the quantitative analysis were used to bolster the qualitative findings.

Results/Findings

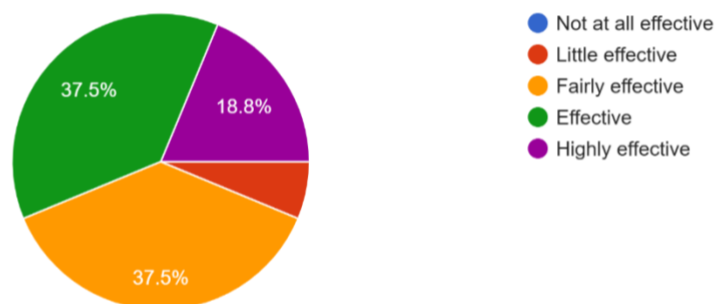
Regarding familiarity with live worksheets, 75% ($n = 12$) of the students indicated that they had no prior exposure to the platform before the 15-week course, while 25% ($n = 4$) reported previous experience using live worksheets in other courses or during the COVID-19 pandemic.

RQ1: Students’ perceptions of live worksheets

Figure 3 presents students’ perceptions of the effectiveness of live worksheets in online French classes. Overall, perceptions were largely positive, with 18.8% ($n = 3$) describing the worksheets as highly effective, 37.5% ($n = 6$) as effective, and another 37.5% ($n = 6$) as fairly effective. Only one student (6.3%) perceived them as minimally effective.

Figure 3.

Students' perceptions of the effectiveness of live worksheets in French classes



Interactive learning, knowledge reinforcement, and learner autonomy

A dominant theme emerging from the qualitative responses is that live worksheets enhanced engagement, reinforced language learning, and promoted learner autonomy. Students appreciated the platform's interactive nature, particularly its immediate feedback and self-check features, which encouraged active participation and reflection. One participant explained that the worksheets are “*very interactive*” (Participant 4), while another highlighted that they “*give instant feedback*” (Participant 7). Similarly, Participant 13 noted that the worksheets provide “*visual representations*” and allow learners to “*instantly check to see if [their] answers are correct.*”

Students also perceived the worksheets as effective tools for reinforcing and extending linguistic knowledge. Participant 5 explained that the activities included “*things learnt in class along with information that hasn't been taught yet,*” thereby encouraging independent learning beyond the classroom. Likewise, Participant 6 stated that the worksheets “*test my knowledge and increase my learning in the language,*” while Participant 1 emphasized the importance of teacher review, explaining that “*even if I get them wrong, my teacher goes over them, so we understand.*”

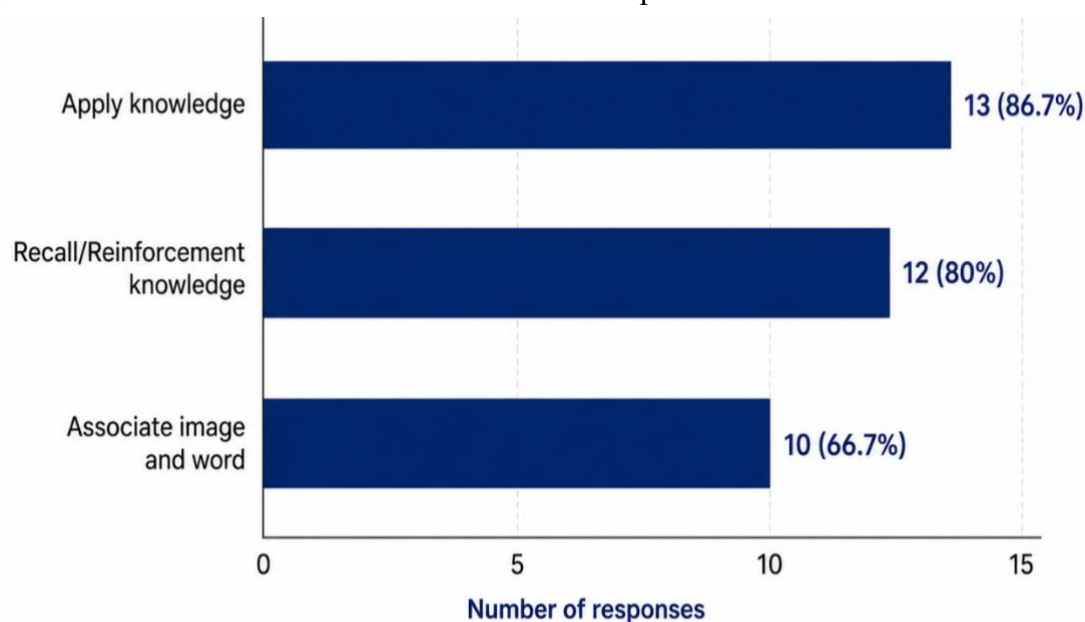
The findings further suggest that live worksheets support self-assessment and metacognitive awareness. Students valued the ability to independently evaluate their understanding through immediate corrective feedback. Participant 3 stated that the worksheets “*allow you to test yourself,*” while Participant 16 described them as “*a typical Q and A that allows you to assess how much you know.*”

Comprehensive language development and visual learning support

Students additionally perceived live worksheets as valuable for developing multiple language skills simultaneously. From the 15 responses received for this question, Figure 4 shows that 86.7% ($n = 13$) of students reported applying knowledge through the worksheets, 80% ($n = 12$) indicated that the activities reinforced learning, and 66.7% ($n = 10$) highlighted the association between images and vocabulary.

Figure 4.

Impact of live worksheets on students' French development



Qualitative responses revealed that the visual and contextual nature of the worksheets significantly supported vocabulary acquisition, comprehension, and recall. Participant 2 explained that the worksheets helped them “*better understand French*” because, as a visual learner, they could “*easily associate which is which.*” Similarly, Participant 4 stated that “*the images help you to remember the words you learn better,*” while Participant 8 observed that matching images to French vocabulary strengthened “*memory retention.*”

Students also emphasized the role of the worksheets in promoting contextualized language use and fluency development. Participant 8 noted that fill-in-the-blank and conjugation exercises provided opportunities “*to use what [they’ve] learned in a practical context,*” while Participant 9 stated that the worksheets “*challenge [them] to be more fluent.*”

Collectively, these findings suggest that live worksheets support multimodal and learner-centered language instruction by combining visual learning, practical application, and immediate feedback within a structured digital environment.

Motivational and participation driver

Findings revealed that the majority of students ($n = 13$; 81.25%) believed that live worksheets positively contributed to their motivation to learn French, while only three students (18.75%) indicated that the worksheets did not influence their motivation. The dominant theme emerging from the data was interactive engagement as a motivational factor. Several students explained that the worksheets helped to increase their participation and made lessons more enjoyable and dynamic. For example, Participant 1 stated that the worksheets “*push me to participate more,*” while Participant 7 noted that they “*make the class more interactive.*” Similarly, Participant 5 described the worksheets as “*fun and engaging,*” emphasizing that the activities sparked curiosity through “*one or two surprises that make you want to research to get the correct answer.*” Another major theme was independent learning and self-improvement through feedback and practice. Participant 12 explained that “*after getting something wrong it inspires*

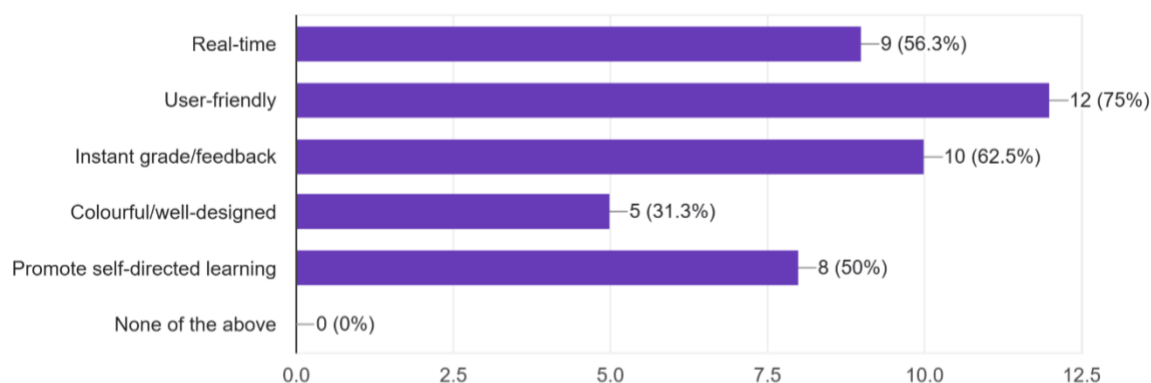
me to question my professeur or Google to get the right answer,” while Participant 8 highlighted the value of “immediate feedback” that “helps me identify areas for improvement and gives me a sense of accomplishment.” Students also associated the worksheets with language development and increased confidence. Participant 6 explained that the activities motivated them “to learn more French so I can read fluently without hesitation,” whereas Participant 13 stated that the worksheets motivate them “to practice so when a question is asked I am able to interpret what it is saying.” However, among the minority who expressed negative perceptions, Participant 16 stated that “my motivation for the language has to do with my interest,” suggesting that intrinsic interest in French outweighed the influence of the worksheets. Overall, the findings indicate that live worksheets motivated most students by fostering engagement, curiosity, active participation, and a sense of language growth.

Perceived advantages of live worksheets

Figure 5 further illustrates students’ favorable perceptions of live worksheets in foreign language instruction. Most students (75%, $n = 12$) found the platform user-friendly, while 62.5% ($n = 10$) appreciated the instant grading feature. Additionally, 56.3% ($n = 9$) valued the real-time nature of the activities, and 50% ($n = 8$) identified their role in promoting self-directed learning.

Figure 5.

Students’ perceptions of advantages of using live worksheets



Students particularly valued the accessibility and flexibility of the platform. Participant 3 described the worksheets as containing “interactive elements” such as drag-and-drop and audio components that make learning “more engaging,” while also supporting “remote learning or on-the-go study.” Another participant explained that the activities “make [them] question why [they] got things wrong, rather than just accepting it” (Participant 4).

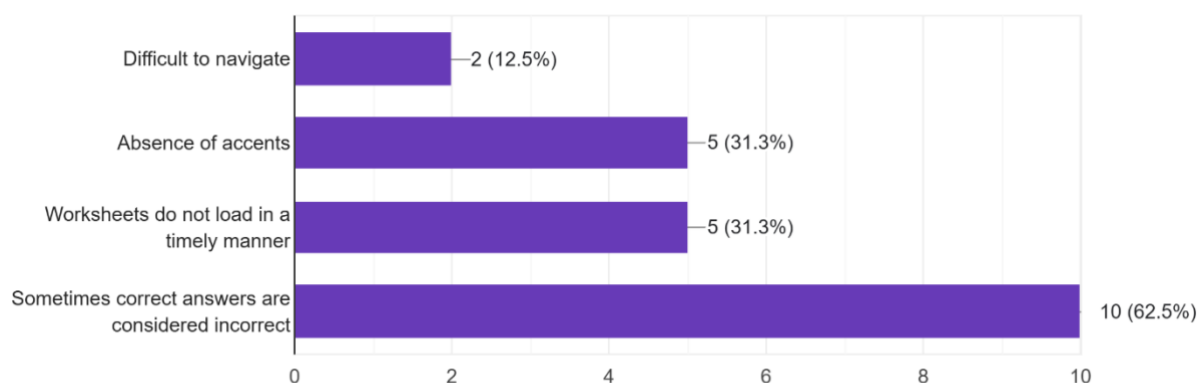
Technological limitations and areas for improvement

Despite the generally positive perceptions, students identified several technological concerns and pedagogical limitations. Figure 6 indicates that the most common issue was the platform incorrectly marking correct answers as wrong, as reported by 62.5% ($n = 10$) of the participants. Other concerns included the absence of accents (31.3%, $n = 5$), loading delays (31.3%, $n = 5$),

and navigation difficulties (12.5%, $n = 2$). One participant additionally highlighted the “*limited feedback*” provided for incorrect answers, which made it “*harder to understand mistakes.*”

Figure 6.

Limitations of live worksheets in French online classes



Some students also expressed a desire for more authentic and communicative learning activities. Participant 8 acknowledged the effectiveness of the worksheets but suggested that “*there is still room for improvement with more interactive and real-life application activities.*” Technical functionality across devices also emerged as a concern, with Participant 14 reporting that “*the page tends to reload whenever I use my phone or tablet.*”

Overall, while students perceived live worksheets as engaging and pedagogically beneficial, the findings suggest a need for improved technical reliability, more contextualized language activities, and enhanced feedback mechanisms to optimize the online foreign-language learning experience.

RQ2: Role of the instructor when using live worksheets

The qualitative responses strongly position the teacher as an indispensable pedagogical mediator in the use of live worksheets, rather than a passive facilitator of technology. Through thematic analysis, three closely related themes emerged: instructional guidance and clarification, corrective feedback and reinforcement, and learner support and engagement.

The dominant theme was instructional guidance and clarification, appearing in 8 of the 16 responses (50%). Students repeatedly emphasized that the teacher’s role extends beyond assigning worksheets to actively explaining concepts and ensuring comprehension. Participant 3 noted that “*he teaches and then we do the worksheet to test the knowledge that we have gained and then he goes through it with us,*” highlighting the integration of instruction, practice, and review. Similarly, Participant 4 explained that the teacher supports learning “*by going through each question and explaining what you probably don’t fully understand.*” These responses suggest that students perceive live worksheets not as self-sufficient tools, but as supplementary resources requiring teacher mediation to maximize effectiveness. This aligns with constructivist approaches to CALL pedagogy, where technology is most impactful when scaffolded by instructor interaction and clarification.

A second major theme concerned corrective feedback and reinforcement, identified in 6 responses (37.5%). Participants valued the teacher’s role in correcting errors and reinforcing accurate language use. Participant 2 remarked that the instructor “*not only goes over the correct*

ones [answers] but the wrong ones as well in detail,” while Participant 9 highlighted assistance with “misspellings or enunciating words incorrectly.” Such responses indicate that immediate feedback remains central to language acquisition, particularly in online foreign language learning contexts where learners require ongoing linguistic correction and pronunciation support. The findings therefore reinforce the pedagogical importance of teacher feedback even within technology-enhanced environments.

The third theme, learner support and engagement, appeared in 5 responses (31.3%). Students associated teacher involvement with motivation, confidence, and deeper engagement in the learning process. Participant 6 described the teacher as “*crucial*,” explaining that instructors maintain motivation, facilitate discussions, and enrich the learning experience. Likewise, Participant 8 stated that the instructor “*tries to ensure we grasp/understand the material he provides*.” These comments demonstrate that students value the socio-affective role of the teacher alongside the technological affordances of live worksheets. The teacher is therefore viewed as both an academic guide and a motivational presence who sustains learner participation in online instruction.

Interestingly, only one participant suggested a more autonomous perspective, indicating that “*if there is enough interest the student may take on that initiative*” (Participant 13). However, even this response acknowledged that teacher involvement “*would be better*,” further underscoring the perceived necessity of instructional support.

Overall, the findings suggest that students do not perceive live worksheets as replacements for teachers, but rather as pedagogical tools whose effectiveness depends heavily on teacher guidance, explanation, and feedback. The responses collectively reinforce the continued centrality of the teacher in online foreign language instruction, even within increasingly technology-mediated learning environments.

Discussion

The findings of this study underscore the pedagogical value of interactive live worksheets in FL online learning environments, particularly in fostering engagement, motivation, autonomy, and cognitive participation. Overall, students perceived the worksheets positively, especially because of their interactivity, immediate feedback, and ability to support different aspects of language learning. These findings reinforce constructivist and sociocultural perspectives on learning, which emphasize active participation, learner interaction, and scaffolded meaning-making in digital environments. Rather than being passive recipients of content, students became active participants who engaged continuously with linguistic input, feedback, and task-based activities. This aligns with Vygotskian principles of mediated learning, where technological tools act as mediational artifacts that facilitate cognitive development and learner autonomy (Vygotsky, 1978).

A major finding concerns the effectiveness of instant feedback in promoting learning and self-regulation. Students appreciated the opportunity to immediately verify their responses, identify errors, and reinforce understanding. This supports the principles of formative assessment and self-regulated learning, in which timely feedback enhances metacognitive awareness and enables learners to monitor their progress. Importantly, the motivational findings revealed that 81.25% of participants believed that live worksheets positively influenced their motivation to learn French. Students associated the worksheets with feelings of curiosity, enjoyment,

participation, and accomplishment, with some explaining that the activities motivated them to research unfamiliar concepts, seek clarification, and practice more independently. These findings resonate strongly with FLEX and positive psychology perspectives, which suggest that enjoyable and low-anxiety learning environments contribute to learners' willingness to participate and sustain motivation (Wu & Kabilan, 2025). The multimodal and interactive nature of live worksheets therefore appears to contribute not only to linguistic development but also to affective engagement and learner curiosity. Similar conclusions were reached by Khikmiah (2021), Kopniak (2018), and Nurhidayati (2019), who found that interactive digital worksheets stimulate learner interest, participation, and motivation in online learning contexts.

The findings further suggest that live worksheets helped to promote deeper cognitive engagement compared to more passive online learning methods such as lectures or static readings. Through matching exercises, drag-and-drop activities, listening tasks, and open-ended responses, students are required to apply, analyze, and evaluate language knowledge in real time. This supports cognitive engagement theory, which posits that meaningful learning occurs when learners actively process and manipulate information rather than merely receive it (Singh & Rajendran, 2024). Students' reports that the worksheets encouraged them to "*research to get the correct answer*" and "*question [their] professeur or Google*" after making mistakes further demonstrate the development of inquiry-based and self-regulated learning behaviors. The worksheets' multimodal features also support dual coding and multimedia learning theories, particularly through image-word associations that enhance vocabulary retention and recall (Ryabchikova et al., 2020). Students' reports that vocabulary development was the most positively affected area of FL learning further confirm the effectiveness of combining visual and textual input in language acquisition. These findings are also consistent with Madden et al. (2024) and Wang (2014), who highlighted the positive impact of technology-mediated vocabulary learning on knowledge retention and application.

Another important implication of the findings is the inclusive and differentiated nature of live worksheets. Students appreciated the diversity of activities and the ability to work at their own pace and receive personalized support through immediate correction. This reflects principles of differentiated instruction and learner-centered pedagogy, which advocate adapting instruction to diverse learning preferences and abilities. Visual learners benefit from graphics and diagrams, kinesthetic learners from interactive manipulation tasks, and reflective learners from written-response opportunities. The findings therefore support the argument that interactive digital tools can contribute to more inclusive online learning environments. Additionally, the possibility of integrating live worksheets into learning management systems such as Moodle, Canvas, and Google Classroom demonstrates their compatibility with contemporary digital pedagogies and blended learning frameworks.

The study also highlights the perceived motivational role of live worksheets in supporting participation and sustaining attention in online FL classes. Students explained that the worksheets "*push[ed]*" them "*to participate more*" and made the class "*more interactive*," suggesting that the activities helped reduce the monotony and passivity often associated with online learning. From the perspective of Self-Determination Theory, the worksheets may support intrinsic motivation by satisfying learners' needs for competence, autonomy, and engagement. Students experienced competence through immediate feedback and successful task completion, autonomy through self-paced interaction, and relatedness through classroom discussion and teacher guidance. These motivational affordances are particularly significant in online language learning contexts where maintaining learner attention and participation can be challenging. Nevertheless, the minority of students who reported that the worksheets did not influence their motivation demonstrates that digital tools alone do not guarantee meaningful

learning or intrinsic interest; pedagogical support and learner disposition remain essential.

Indeed, the findings strongly emphasize the continued centrality of the teacher's role in technology-enhanced learning environments. While live worksheets can facilitate independent learning, students still rely on instructors for guidance, clarification, scaffolding, and emotional support. This aligns with sociocultural theory, which views teachers as mediators who support learners within their Zone of Proximal Development. Teachers therefore remain essential in designing pedagogically meaningful worksheet activities, aligning them with lesson objectives, troubleshooting technical issues, and clarifying misconceptions. The findings also support the teacher-facilitator model in online learning, in which instructors guide interaction and encourage collaborative knowledge construction rather than simply transmitting information. Importantly, allowing students to explain concepts collectively during worksheet correction promotes metacognitive reflection and strategic competence, as highlighted by Andriyani et al. (2020) and Madden and Robinson (2025). Such collaborative explanation processes may also strengthen communicative competence and reinforce pronunciation, grammar, and cultural understanding.

Although the findings support the pedagogical value of live worksheets, some challenges remain evident. Students identified issues such as faulty automatic corrections, delayed loading times, and the absence of target-language diacritics. These technological limitations can negatively affect learner confidence, accuracy, and overall learning experiences, especially in FL contexts where orthographic precision is essential. Similar concerns were raised by Madden et al. (2023, 2024), suggesting that technological reliability remains an important consideration when integrating digital tools into FL instruction. These findings further reinforce the importance of teacher preparation and digital competence. Teachers must test worksheets beforehand, anticipate potential technical difficulties, and provide learners with additional support resources when necessary.

Finally, the findings suggest that live worksheets are most effective when integrated into broader pedagogical ecosystems rather than used in isolation. Their optimization through scaffolding, formative assessment, gamification, peer review, and multimodal integration reflects principles of blended and interactive learning design. Pairing worksheets with videos, readings, discussions, and collaborative tasks can create richer learning experiences that combine cognitive engagement with social interaction. Consequently, the study supports a conceptual framework in which live worksheets function as interactive mediational tools that influence FL learning outcomes through interconnected dimensions of engagement, motivation (FLEX), cognitive activation, learner autonomy, and teacher facilitation. The teacher's pedagogical mediation remains central in ensuring that technology meaningfully supports language acquisition rather than merely digitizing traditional exercises.

Conclusion

The findings underscore the perceived pedagogical value of interactive live worksheets in online French foreign language classes, particularly in contributing to and enhancing students' foreign language excitement (FLEX), motivation, participation, and engagement. Students perceived the worksheets as beneficial for reinforcing vocabulary, grammar, comprehension, and word-image association through immediate feedback and interactive practice, thereby supporting recall, metacognitive awareness, and self-directed learning. Their user-friendly and flexible nature also contributed to a more dynamic and learner-centered online environment.

Importantly, the findings suggest that digital formative assessment tools can help mitigate some of the interactional and motivational challenges commonly associated with online foreign language instruction, especially within beginner-level contexts.

Beyond the immediate classroom implications, the study contributes to broader discussions surrounding technology-enhanced language learning (TELL), gamification, and formative assessment in higher education. The positive student perceptions indicate that carefully designed interactive tools may strengthen learner autonomy, sustain engagement, and support differentiated instruction in increasingly digital and hybrid educational spaces. The findings also reinforce the evolving role of the teacher as facilitator, mediator, and guide in technology-mediated learning environments, where pedagogical support and collective review remain essential to meaningful learning.

Nevertheless, some challenges emerged, including occasional inaccuracies in automated responses and issues related to missing diacritics, which at times marked correct answers as incorrect. These findings highlight the need for instructors to critically evaluate and test digital worksheets before implementation. Providing students with supplementary linguistic support, such as links for French (or any other applicable language) accents and spelling conventions, may also reduce frustration and improve accuracy. Additionally, while live worksheets encourage learner independence, the findings demonstrate that teacher guidance remains indispensable. Collective correction sessions, clarification of errors, and opportunities for students to actively participate in reviewing responses may further enhance strategic competence and deeper language processing.

Overall, this study suggests that interactive live worksheets hold considerable promise as accessible and engaging pedagogical tools in online foreign language education. Future studies employing larger samples, comparative designs, and mixed-methods approaches could provide deeper insights into their long-term impact on language proficiency, learner autonomy, and digital pedagogical practices across diverse educational contexts.

Additionally, future studies should explore blended learning outcomes, by pairing interactive live worksheets with other teaching methods such as live instruction, video instruction, and traditional approaches. Another idea for exploration could examine live worksheets' influence on student motivation and self-directed learning behaviors in language courses. Furthermore, on a macro level, studies could investigate how students from different cultural or linguistic backgrounds interact differently with live worksheets, by focusing on user interface preferences, engagement patterns, and comprehension.

This study presents several limitations that should be considered when interpreting the findings. First, the absence of a control group limited the ability to make robust comparative claims regarding the effectiveness of live worksheets relative to other instructional approaches. As such, the findings should be interpreted as embryonic and perception-based rather than causal. Second, the relatively small sample size ($N = 16$) restricts the statistical generalizability of the results; however, the study was designed as a context-specific investigation intended to provide in-depth insights into students' experiences within an online French learning environment. To mitigate this limitation, both quantitative and qualitative data were incorporated to enhance the

richness and credibility of the findings through methodological complementarity. Finally, the reliance on self-reported data may have introduced subjectivity and response bias. Nevertheless, measures such as anonymous participation and the assurance that there were no right or wrong answers were implemented to encourage honest responses and reduce social desirability bias. Future studies may strengthen the methodological design through larger samples, comparative groups, classroom observations, interviews, or longitudinal approaches.

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Biodata

Oneil Madden is a lecturer and applied linguist with 12 years of experience in higher education. He has taught courses in English, French, Spanish, and Francophone literature at local, regional, and international levels. A prominent Caribbean researcher, his scholarly interests include gamification in language education, artificial intelligence and language learning, innovative pedagogy, and intercultural communication. He has authored more than 30 scholarly publications, including journal articles, book chapters, and conference papers. Beyond academia, Oneil is a journalist and respected public intellectual. He writes a weekly column for the Jamaica Observer, where he examines issues spanning education, current affairs, social concerns, and politics. To date, he has published more than 500 newspaper articles, contributing significantly to public discourse on issues of national and regional importance.

Appendix

Gender: Male, Female

Age range: 17-22, 23-28, 29-34, 35-40, 41 & over

Program of study

Year of study: 1, 2, 3, 4, 4 extended

1a. Did you take French before taking this course? Yes/No

1b. If yes, up to what level?

2a. Were you familiar with live worksheets before this course? Yes/No

2b. If yes, what context were you exposed to live worksheets/Kahoot?

3a. Based on the scale below, how effective do you find the worksheets to be in your French classes?

- Not at all effective
- Little effective
- Fairly effective
- Effective
- Highly effective

3b. Explain your answer in 3a.

4. Choose the word/s that best describe/s the advantages of using live worksheets. (More than one selection possible)

- Real-time
- User-friendly
- Instant grade/feedback
- Colorful/well-designed
- Promote self-directed learning
- None of the above
- Other:

5a. Choose the word/s that best describe/s some of the disadvantages of live worksheets. (More than one selection possible)

- Difficult to navigate
- Absence of accents
- Worksheets do not load in a timely manner
- Sometimes correct answers are considered incorrect
- Other:

6a. In what way/s do/es the live worksheets help you with your French? (More than one selection possible)

- Recall/reinforcement of knowledge
- Apply knowledge
- Associate image and word

6b. Elaborate on your answer above, providing examples where necessary.

7. With 3 being the highest and 1 the lowest, rank from highest to lowest the areas that the live worksheets have helped you the most. Choose a different number for each row.

- Vocabulary development/reinforcement
- Grammar development/reinforcement
- Reading skills

8. How often should live worksheets be given?

- Every class
- Once weekly
- After every unit
- Every two weeks
- Never

9. Do live worksheets play a part in your motivation to learn French? Please justify your response.

10. Does the teacher have a role to play in the teaching/learning process with the use of live worksheets? Please justify your response.

11. How do you feel when you are doing the live worksheets? (More than one selection possible)

- Autonomous
- Unsupervised
- Lost
- Annoyed
- Engaged/curious

12. Do you (re)consult the live worksheets after you have completed them in class? Explain why or why not.

13. Would you say the live worksheets are a good replacement to the traditional paper-based assessments? Justify your answer.

Leave any additional comments about live worksheets.

I consent to participate in this study. Yes/No