DIGITAL TECHNOLOGIES FOR FOSTERING MOTIVATION AND AUTONOMY IN LANGUAGE TEACHING IN THE ACADEMIC CONTEXT

LAS TECNOLOGÍAS DIGITALES PARA EL FOMENTO DE LA MOTIVACIÓN Y AUTONOMÍA EN LA ENSEÑANZA DE IDIOMAS EN EL CONTEXTO ACADÉMICO

AS TECNOLOGIAS DIGITAIS PARA O FOMENTO DA MOTIVAÇÃO E AUTONOMIA NO ENSINO DE LÍNGUAS EM CONTEXTO ACADÊMICO

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ABSTRACT: This article aims to discuss strategies for fostering motivation in additional language (AL) learning through tasks and materials that provide a more authentic and participatory learning process. The central proposal refers to the use of technologies within the flipped classroom (FC) approach, which prioritizes reflection and content deepening during asynchronous moments. The success of this approach depends on greater student engagement and participation, promoting conscious learning supported by relevant strategies for language studies. To this end, the article presents suggestions for designing AL classes in the academic context, based on practical experience in a beginner German language course. It is hoped that this proposal will encourage participatory and autonomous learning, contributing to critical and authentic education.

KEYWORDS: Digital technologies. Additional language teaching. Motivation and Authenticity. Flipped classroom.

***RESUMEN**: El objetivo de este artículo es discutir estrategias para fomentar la motivación en el aprendizaje de lenguas adicionales (LA) mediante tareas y materiales que proporcionen un proceso de aprendizaje más auténtico y participativo. La propuesta central se refiere al uso de tecnologías dentro del enfoque de la sala de clase invertida (SAI), que prioriza la reflexión y el profundización del contenido durante los momentos asíncronos. El éxito de este enfoque depende del mayor compromiso y participación de los estudiantes, promoviendo un aprendizaje consciente y apoyado en estrategias relevantes para la formación en Letras. Con este fin, el artículo presenta sugerencias para el desarrollo de clases de LA en el contexto académico, basado en una experiencia práctica en una asignatura de alemán para principiantes. Se espera que esta propuesta estimule el aprendizaje participativo y autónomo, contribuyendo a una formación crítica y auténtica.*

***PALABRAS CLAVE**: Tecnologías digitales. Enseñanza de lenguas adicionales. Motivación y Autenticidad. Sala de clase invertida.*

***RESUMO**: O objetivo deste artigo é discutir estratégias para fomentar a motivação na aprendizagem de línguas adicionais (LA) a partir de tarefas e materiais que proporcionem um processo de aprendizagem mais autêntico e participativo. A proposta central refere-se à utilização de tecnologias dentro da abordagem da Sala de Aula Invertida (SAI), que prioriza a reflexão e o aprofundamento do conteúdo durante os momentos assíncronos. O sucesso dessa abordagem depende do maior engajamento e participação de estudantes, promovendo uma aprendizagem consciente e apoiada em estratégias relevantes para a formação em Letras. Para esse fim, o artigo apresenta sugestões para a elaboração de aulas de LA no contexto acadêmico, com base em uma experiência prática em uma disciplina de língua alemã para iniciantes. Espera-se que essa proposta estimule a aprendizagem participativa e autônoma, contribuindo para a formação crítica e autêntica.*

***PALAVRAS-CHAVE**: Tecnologias digitais. Ensino de línguas adicionais. Motivação e Autonomia. Sala de aula invertida.*

Introduction

Motivation is a crucial factor in learning Additional Languages (AL), significantly influencing student engagement and success in a wide variety of learning environments. The right choice of teaching strategies, tools and approaches can help to promote more active and conscious participation by students in AL, and is therefore essential for creating a more autonomous learning environment that is conducive to maintaining motivation. Various criteria can be used to select approaches and materials, and it is important to take into account the characteristics and demands of each context and learning objective. In this article, we intend to reflect on working with digital information and communication technologies, DICT (or short digital technologies, DT) at the heart of the Flipped Classroom (FC) approach through a proposal focused on AL learners in the academic context of a Languages course.[2]

Research into the relevance and possibilities of implementing DTs for teaching AL has been causing new shifts and presenting important reflections, in particular for discussions aimed at encouraging autonomous and individualized learning (Aquino, 2021; Aquino; Oliveira, 2023; Leffa, 2009; Marques-Schäfer; Rozenfeld, 2018; Paiva, 2013). Despite the expansion in the use of DTs for AL learning, working with technologies needs to be designed in such a way as to provide opportunities for practices that take into account local specificities, in which teachers and learners have an active role in the production of knowledge. Just like traditional textbooks and teaching materials, especially those from major international publishers, DTs have gaps, requiring teachers to be able to adapt them to take into account the plurality of interests, objectives and ways of learning.

According to Kapp (2012), through dynamic interactions and space for active participation, DTs can provide critical thinking and develop problem-solving skills. According to Kukulska-Hulme (2012), the use of DTs should not only enable students and teachers to interact more with new ways of teaching and learning, but should also make it possible to choose options that allow them to take an active and conscious stance in determining the paths to be taken in the learning process. For the training of future teachers, it becomes even more

[2] We chose the term Additional Language (AL) over Foreign Language (FL) because, while the term FL indicates that the learning took place outside of social interaction, AL refers to the language as a relevant resource for participation in contemporary social practices enhanced by digital media. Thus, the term AL refers to the use of a language as a means of integration into everyday life and social interaction, so that it ceases to be a foreign language and becomes an additional one. We therefore believe that the choice of this term promotes the concept of a language that is close and accessible, as an instrument for social reconstruction.

important to be concerned with the teaching of AL through the development of critical practices that involve digital literacy, which consists of complex procedures associated with the interaction of conscious digital resources to provide interactivity, autonomy and motivation (Policarpo *et al.*, 2021).

In this sense, we believe that the FC approach proposes a relevant model for this context, allowing the combination of DTs (such as videos, games, podcasts, apps, quizzes and wikis) and strategies that involve decision-making and responsibility in the learning process. At FC, part of the fundamental concepts and content are presented outside the classroom (asynchronously), through materials developed or assigned by the teacher virtually. Face-to-face meetings are reserved for deepening the content with feedback sessions, discussion of doubts, revisions and collaborative work (Schneiders, 2018). This approach therefore presupposes a shift away from traditional teaching concepts, giving students a greater commitment to their learning process.

In this article, we propose an AL teaching model based on an experience in the German Language II subject at the University of São Paulo (USP), which adopted the FC format for contextualized work with DTs. Thus, the aim of this study is to suggest a more personalized approach to AL teaching, with access to authentic materials and texts, as well as reflection on strategies for language teaching and learning. The activities developed can be adapted to different contexts and pedagogical needs, being applicable throughout the semester or in specific classes, such as through didactic sequences.

In the following sections, we present a theoretical discussion on the use of DTs in the FC approach to promote motivation and autonomy in AL teaching, as well as the methodology used to design and implement the didactic proposal, taking as a reference an experience in a beginner German language class at USP. Next, we analyze the possibilities and challenges of this strategy and finally, in the conclusion, we reflect on the experience of applying FC in the academic context.

Digital technologies in the teaching of additional languages

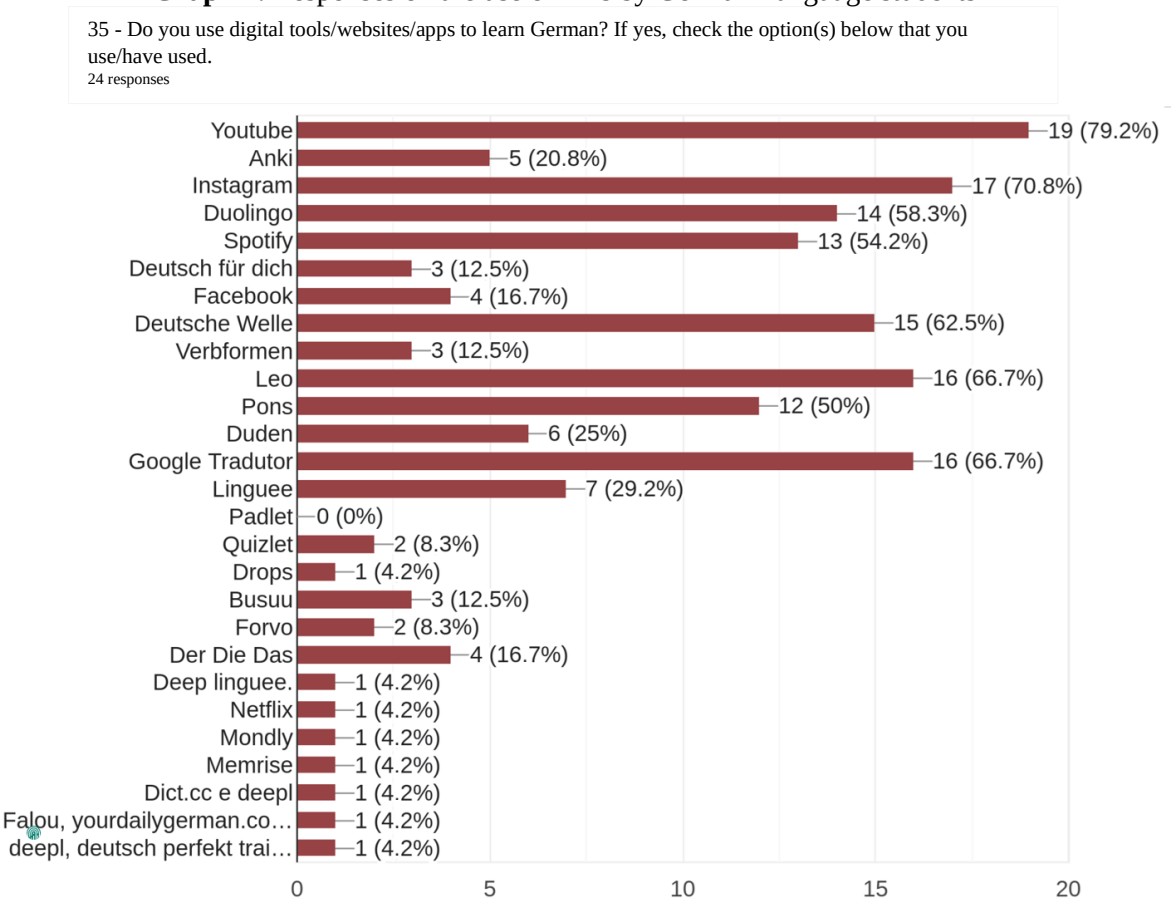
Teaching any AL is a complex and non-linear activity, which presupposes the involvement of various types of knowledge and demands, constructed by individualities, tools

and methodological actions (Aquino, 2024; Zancanaro; Rozenfeld, 2018), one of which is the use of DTs. DTs have a number of strategies that can be pertinent to the teaching and learning of ALs, as they offer means of dynamic interactions and space for active participation, encouraging motivation and self-confidence (Kim; Kwon, 2012). The range of possibilities for choosing DTs for language teaching is extensive, requiring the ability to select and adapt to take into account the context and learning needs. One of today's most popular self-learning language apps, Duolingo, is free and offers gamified activities, *i.e.*, using game-based tools and mechanisms to involve users in solving problems and engaging in learning. However, the application is based on methods with a strong behaviorist character, describing language as a system of signs isolated from a sociocultural context, which is far removed from current thinking on language teaching (Paiva, 2013).

Thus, in order for DTs activities to be able to dialog with social, political, cultural and didactic aspects, more thought needs to be given to how to use them within a given approach. According to Policarpo et al. (2021), digital literacy should consist of practices with the support of digital devices and resources to transform learning spaces, *i.e.*, exchanges inside and outside the classroom and the way knowledge is mediated. As a space for critical education, the university needs to offer experiences that meet the demands of teachers and students, as well as society, which includes, among other things, the use of technology. In this sense, we believe that the application and discussion of the ways in which TDs are used in teaching can provide students of Modern Languages with the skills and domains necessary to dialog with technologies in a critical manner.

In the dissertation "Strategies for learning German as a foreign language: perspectives of language students at the University of São Paulo," by Mariana Juliano (2023), an online questionnaire was used to gather information on the knowledge and use of learning strategies in the context of language studies, specifically in German language. With regard to the use of DTs, the following questions were asked: "Do you use digital tools to learn German?"; 'For what purpose have you used the digital tools mentioned above?'. Around 95% of the respondents mentioned using some form of digital tool for individual study in German. The following graph shows the preferences indicated by the respondents in the questionnaire:

Graph 1. Responses on the use of DTs by German Language students



Source: Juliano (2023).

Graph 1 shows the variety of tools used by German students, the most frequent of which are the following: Youtube, Instagram, Leo and Google Translate. On YouTube, the students mentioned watching videos with grammar explanations, webseries and news. Instagram is accessed to follow pages with curiosities, humor and tips on the German language and culture. Google Translate and the Leo dictionary are used to look up and translate unfamiliar words and expressions. This highlights the limited use of DTs for language learning, which may be linked to the specific characteristics of the respondents, or to the lack of knowledge of Modern Language students in relation to these tools. Some of the students indicated that they use apps like Duolingo and Busuu to train content and learn vocabulary, but that in the long run they end up losing motivation, as one respondent reports: “I used Busuu for a year to learn vocabulary, but I got tired of it because it was so monotonous and I realized I was just memorizing ready-made sentences” (Juliano, 2023, p. 98, our translation).

Considering these experiences, we aimed to design a didactic proposal grounded in the Flipped Classroom (FC) approach, with the objective of fostering more engaging, critical, and

autonomous learning processes, mediated by digital technologies. This proposal is closely aligned with the principles set forth by the National Curriculum Guidelines for Language and Literature degree programs, which emphasize teacher education committed to critical thinking, proficiency in multiple literacies, and the mediation of knowledge across diverse educational contexts. Through the intentional and reflective integration of active methodologies and digital resources, the proposed model seeks to contribute to the development of educators who are protagonists of their own pedagogical practices, capable of acting with sensitivity, creativity, and a heightened awareness of the contemporary challenges inherent in language teaching.

Motivation and Autonomy

Motivation can be defined as a driving force that influences people to act in certain ways when performing tasks (Ofugi, 2016). In the context of AL, motivation has been widely studied and targeted, and is considered essential for successful learning (Ushioda, 2013). Research in this field has evolved over time, passing through various conceptions until reaching the current prism of sociodynamics (Dörnyei; Ushioda, 2021), which recognizes the influence of sociocultural and historical factors on motivation. From this perspective, learning is seen as a socially situated process, permeated by complex interactions between learners, their teachers and the wider teaching and learning context.

In this sense, motivation in AL must be understood within a specific social context, taking into account the individual motivations that influence learners' choices, engagement and persistence (Ushioda, 2013). This implies recognizing that motivation varies over time and is affected by a number of contextual factors, including self-image and individual social and cultural perceptions of the target language (Dörnyei, 2005). In the university context, AL teaching must be integrated into the process of building knowledge in an even broader way, involving more complex practices, such as knowledge of teaching and learning strategies and approaches, experience with a diversity of textual genres, reception and production of academic texts, among other aspects.

According to Ushioda (2013), teaching strategies based on tasks integrated with sociocultural aspects are more motivating than approaches centered only on grammar and formal assessments. This suggests that activities that connect language to students' personal

experiences and interests can significantly increase motivation and participation. In addition, according to Debbağ and Yildiz (2021), valuing prior knowledge and individual interests also promotes self-confidence and autonomy, which are the pillars of continuous and meaningful learning.

Autonomy, in this context, should be understood not only as independence in the execution of tasks, but as a multifaceted competence that involves self-regulation, critical thinking, pedagogical decision-making and the development of metacognitive awareness of one's own learning process. It also involves the ability to set learning objectives, monitor one's own progress, seek out appropriate resources and adapt strategies according to the challenges encountered. So, it is not about learning alone, but about learning to act responsibly, consciously and as a protagonist in the construction of knowledge.

In this scenario, promoting autonomy means transforming the student into an active agent of her educational path, capable of critically reflecting on her language practices, her study habits and her real learning needs. In this model, the teacher assumes the role of mediator and facilitator, offering support, guidance and resources, but encouraging freedom of choice and the student's responsibility for her own development.

Particularly in the context of teacher training, the FC model has concrete benefits for motivation and autonomy, by allowing personalization of the learning process and access to a variety of technologies and materials. For this approach to be successful, it is necessary to reconfigure the traditional roles assigned to teachers and students, from organizing teaching practices to promoting more active and conscious participation on the part of students (Aquino; Oliveira, 2023). By inverting pedagogical spaces, FC shifts the focus from face-to-face meetings to asynchronous interactions (Schneiders, 2018), valuing class time for collaborative activities, critical discussions and individualized monitoring.

In this scenario, DTs become allies for autonomy, as they allow part of the activities to be carried out flexibly, outside the classroom, promoting time management, the development of individual strategies and the expansion of the repertoire of resources. Autonomy is reinforced by the possibility of choosing between different tools and approaches, as well as the ability to reflect on one's own learning and adapt to the challenges that arise along the way. During synchronous meetings, the focus can be on guidance, feedback and the joint construction of knowledge, creating a space conducive to critical learning and self-reflection (Ofugi, 2016).

Additionally, the work of Benson (2011) provides a solid theoretical foundation for understanding autonomy as an active process of constructing critical agency. Selwyn (2014), in turn, offers an analytical perspective on the use of digital technologies in education, drawing attention to their ideological, economic, and formative dimensions. These perspectives contribute to a broader reflection on the role of technologies not merely as tools, but as spaces for social and epistemological negotiation.

In the next section, we will discuss proposals for didactic activities using DTs in the FC approach, detailing how they can foster both motivation and autonomy in the language learning process.

The implemented proposal: an experience report with the FC approach and the use of DTs

The didactic proposal presented in this article was originally developed and implemented with a beginner-level group in the course German Language II, within the Language and Literature program at USP, during the second academic semester. The class consisted of 30 students, most of whom had no previous experience with the language and varied levels of familiarity with educational technologies. The choice of the Flipped Classroom (FC) approach aimed not only to expand students' exposure to the target language but also to foster their autonomy and engagement through the strategic use of digital technologies (DTs).

The methodological framework was organized around three interconnected pillars: asynchronous, synchronous, and integrated activities. During asynchronous sessions, students had access to short video lessons (15–30 minutes), created specifically for the class, focusing on topics such as grammar, vocabulary, and communicative structures. Platforms such as LearningApps, Quizlet, and Language Reactor were used to watch clips from series and films featuring interactive transcripts and multilingual glossary resources. Additionally, students were encouraged to produce small sets of exercises (gap-fill, matching, multiple choice), promoting metacognition, creativity, and autonomy in developing teaching materials.

During synchronous sessions, activities concentrated on consolidating and expanding the content covered in prior studies. Dialog simulations, dramatizations of everyday university situations, and debates on audiovisual materials accessed were conducted. Gamification and

collaborative tools such as Kahoot, as well as "station circuits" dynamics, were employed to foster collaboration, participation, and critical thinking. Exercise lists created by the students themselves were exchanged among groups, promoting peer assessment that also enhanced linguistic and didactic awareness.

Integrated activities played a strategic role in stimulating authorship and critical appropriation of language. Among these, project work stands out, allowing students to create new content, such as presenting favorite songs, writing poems, teaching a lesson on topics covered, producing short videos with grammar tips, and organizing a collaborative Padlet with learning records and annotated links. These projects were optional and designed to include students' preferences and interests. Below, we systematize the main pillars of the proposal in a table that organizes activity types, examples, and pedagogical objectives:

Table 2. Structure of teaching activities with FC

Activity	**Examples and Tools Used**	**Pedagogical Objective**
Asynchronous	Video lessons (10 to 20 minutes) on the lesson content; exercises on Moodle, LearningApps, Google Classroom, and Quizlet; exploration of films and series using the Language Reactor tool (e.g., *Zeit der Geheimnisse*, *Die Kaiserin*, *Achtsam Morden*)	Content introduction, development of critical listening, self-exploration, and management of learning pace.
Synchronous	Guided discussions, collaborative correction, oral presentations on series, and creation of thematic boards on Padlet.	Content consolidation, oral practice, collaboration, problem-solving, critical reflection.
Integrated	Creation of videos and podcasts with Padlet, interactive quizzes with Kahoot, participation in projects.	Encouragement of authorship and autonomy, emotional connection with the target language, critical appropriation of language.

Source: Elaborated by the author.

The organization of the activities described in Table 2 aims to make more explicit the pedagogical objectives linked to the choice of tools. The expansion of examples with tools such as Language Reactor—which provides listening support with lexical and prosodic assistance—proved particularly effective for the development of phonological awareness and morphosyntax in oral texts, as well as preparing students for written tasks such as adapted subtitling. The combined use of resources also facilitated work on different skills and learning styles.

Despite the observed advances—such as increased student engagement, diversification of participation modes, and strengthened autonomy—the implementation also revealed significant challenges. The asymmetry in access to technologies, heterogeneity in digital resource proficiency, and varying levels of self-management required continuous formative monitoring by the instructor and differentiated mediation strategies.

The experience demonstrated that autonomy is not a starting point but a process built with support, active listening, and clarity of purpose. The instructor's role as curator and pedagogical mediator was crucial in ensuring meaningfulness and accessibility of the proposed activities. By the end of the semester, progress was noted not only in linguistic proficiency but also in students' increased awareness of their strategies, difficulties, and achievements, highlighting the formative impact of the approach.

Recommendations for educators in other contexts

Based on this practical experience, we have developed a set of recommendations for other teachers to adapt the Flipped Classroom (FC) approach with digital technologies (DTs) to their own realities. We believe that, for this approach to be successful, it is necessary to move away from the idea of literal replication and instead focus on conscious adaptations guided by prior diagnostics and dialogue with students.

Initially, we recommend that each educator identify the characteristics of their group, such as proficiency level, access to technologies, work pace, and learning profiles. From this understanding, it becomes possible to clearly define which activities will be proposed for asynchronous and synchronous moments, establishing transparent expectations regarding participation, deadlines, and assessment methods.

It is essential that the videos and materials used are contextualized with students' interests and repertoires. For example, when addressing a topic like "personal presentations," the teacher might record a demonstrative video with useful vocabulary and expressions and then ask students to record their own short videos at home, creatively introducing themselves. These videos can be shared on a Padlet or in a shared folder, with space for peer comments.

Whenever possible, we suggest that content production be collaborative. The creation of exercise lists, for instance, can begin with a collective workshop: the teacher presents

examples of well-crafted questions about the content (such as a multiple-choice gap-fill based on a real dialogue), and students work in pairs to create similar items. Subsequently, these lists can be exchanged between groups for completion and correction in class, promoting active review and collaboration.

During synchronous sessions, we recommend prioritizing interactive dynamics and moments of active listening. For example, after watching a video on a grammatical structure, students can be organized into small groups to create and enact everyday situations using the learned expressions. Another possibility is to conduct a "station circuit," where each group is responsible for one activity (a quiz, a memory game, a guided reading), with stations rotating afterward.

Digital tools such as Quizlet, Padlet, and Kahoot can be incorporated with well-defined objectives. Quizlet, for example, can be used to review vocabulary with flashcards and custom games; Kahoot can conclude a content cycle with a healthy review competition; and Padlet can host cultural suggestion boards, written productions, or curated collections of useful study links. However, it is essential that each use be accompanied by a pedagogical reflection stage: after a gamified activity, a discussion circle can be opened to reflect on how the game helped (or did not help) content retention, what students learned, and how they might review independently.

When proposing projects, it is crucial that the teacher plans the stages clearly (preparation, presentation, feedback), provides examples, and ensures a welcoming environment. The activity can begin with the teacher's own recommendation (for example, a German song with explanation of the lyrics and reasons for choosing it), followed by a simple script students should follow name of the recommendation, personal justification, words or expressions learned from it, and what they would like to learn more about. Presentations can be oral or in video or podcast format if different linguistic skills and digital resources are to be explored.

Furthermore, formative assessment moments can be integrated into the project. For instance, after presentations, students can respond to a self-assessment with questions such as: "What did I learn during the preparation of this activity?"; "What was the most challenging part?"; "Which strategies would I use next time?" This practice strengthens autonomy and fosters a reflective stance toward one's own learning process.

More than applying a fixed model, the proposal presented here aims to contribute to the construction of more conscious, critical, and adaptable didactic practices—always attentive to the singularities of educational contexts and the real needs of students. The shared examples seek to offer real but flexible possibilities, open to reformulation and reinvention according to each context. The essential aspect is that the teacher acts as a mediator, encouraging responsibility, engagement, and students' capacity to make choices throughout their journey with the additional language.

Comparison of digital tools in additional language teaching

The selection and use of digital tools in Additional Language (AL) teaching should be guided not only by technical availability but, above all, by clear pedagogical criteria, sensitivity to the application context, and consideration of students' prior repertoires. The choice of a platform directly influences interaction modes, types of language practiced, and the discursive positions that emerge in the classroom. Below, we highlight four tools used in the proposed activities and analyze their potentialities and limitations from a critical perspective.

Quizlet stands out for its practicality and visual appeal in vocabulary training. Its system of flashcards and tests with immediate feedback favors memorization, spaced repetition, and individual learning. However, it tends to limit language use to isolated, decontextualized forms, which may reduce its effectiveness in more complex communicative tasks.

Padlet offers an environment for creative authorship, where students can produce multimodal texts, visually organize ideas, and interact with peers' productions. It is an effective tool for cultural, reflective, and content curation activities. Nevertheless, its use requires more structured pedagogical mediation to prevent posts from becoming dispersed or merely illustrative.

Kahoot functions as a resource for collective engagement, especially effective in review sessions or initial knowledge probes. Its gamification-based mechanics stimulate involvement and quick thinking. Despite this, its focus on rapid responses can hinder more complex linguistic elaboration and the development of sustained discursive competencies.

Language Reactor emerges as a promising tool for autonomous learning based on authentic input. By offering synchronized subtitles, contextual translation, and lexical

highlighting in videos, it enhances active listening, grammatical analysis, and prosody. Its effectiveness, however, depends on teacher guidance to transform media consumption into reflective learning practice.

Based on this comparison, we reinforce the importance of attentive teacher curation that aligns technology use with formative goals and students' real needs. Rather than adopting tools for their attractiveness alone, it is necessary to understand them as discursive environments that configure specific ways of teaching, learning, and meaning-making in language. Critical appropriation of these resources can expand students' agency, diversify modes of engagement, and promote more integrated, reflective, and socially situated linguistic experiences.

Conclusion

The integration of Digital Technologies (DTs) with the Flipped Classroom (FC) approach has proven to be a promising strategy to foster motivation and autonomy in Additional Language (AL) learning in academic contexts. The implemented proposal in an introductory German class allowed for practical observation of how reorganizing pedagogical time and space, combined with conscious use of digital resources, can increase student engagement and foster a more critical and participatory stance towards their own learning process.

By articulating concrete classroom experience with the theoretical foundations underpinning FC and studies on motivation and autonomy, this work sought not only to describe a methodological proposal but also to critically analyze it, acknowledging its limitations and potential. Challenges faced—such as the need for greater student support in activity creation, diversity in technological proficiency, and time management in class—highlighted the importance of teacher accompaniment, active listening, and collaborative construction of teaching practices.

Rather than presenting a fixed model, this proposal serves as a flexible foundation for other educators wishing to incorporate FC and DTs into their language classes. The recommendations systematized here were conceived from practice, including concrete examples of activities, mediation strategies, and possibilities for adaptation to diverse

educational realities. It is fundamental that such proposals be critically appropriated by each teacher, considering their institutional context, student profile, and pedagogical objectives.

The reported experience showed that autonomy is not a starting point but an ongoing construction process requiring mediation, support, and space for experimentation. When well planned and accompanied, technologies not only enrich the repertoire of available resources but can also strengthen the relationship between student and content, language and world.

It is worth highlighting that proposals such as the one presented here directly dialogue with the National Curriculum Guidelines for Language courses, especially regarding critical teacher education, mastery of educational technologies, and the ability to mediate knowledge in diverse contexts. The articulation among DTs, authorship, and active learning aligns with promoting comprehensive and situated training for future language teachers.

In sum, this work reaffirms the transformative potential of pedagogical practices that place the student at the center of the learning process, value their agency, and promote a collaborative, critical, and sensitive environment attentive to multiple dimensions of teacher training. As a future direction, we propose developing formative rubrics to aid student self-assessment, implementing reflective journals for teacher monitoring, and conducting continuing education workshops focused on the critical and creative use of digital technologies. It is equally relevant to deepen longitudinal research on the impact of the FC approach in constructing teacher knowledge and professional identity. This model, by integrating technologies critically and contextually, contributes to the formation of more reflective teachers who author their practices and are aware of the sociocultural contexts in which they operate.

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