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A Look at the impacts of the application of collaborative technologies in foreign language teaching; Insights from lecturers

Mohamad Ahmad Saleem Khasawneh

Special Education Department, King Khalid University, Saudi Arabia

Email: mkhasawneh@kku.edu.sa

https://orcid.org/0000-0002-1390-3765

Abstract

Collaborative technological tools are affirmed to be effective in language education. This study discusses how collaborative technological tools have enhanced the teaching and learning of foreign languages (FLs). The study adopts a quantitative method and surveyed 291 FL lecturers drawn across different universities. A digitally designed Google questionnaire Form was used in the survey, and analysis was conducted using relevant statistical measures. The analysis focuses on Zoom, Microsoft Teams, Google Meet, and TeamViewer. It is worth noting that Zoom and Google Meet indicate very high levels of perceived ease of use, with scores of 89.06% and 90.13%, respectively. Microsoft Teams and TeamViewer, while acknowledged for their user-friendly nature with percentages of 57.97% and 77.95%, respectively, have somewhat lower percentages in comparison. The results demonstrate a strong consensus among university lecturers about the perceived use and efficacy of collaborative technology tools in teaching foreign languages. According to the survey's findings, all the survey questions were entirely accepted, ranging from 89.60% to 96.14%. The scope of mean values ranging from 4.86 to 5.39 adds another aspect, indicating the highest acceptance level. These scores show the shared understanding that incorporating collaborative technologies significantly enlarges the teachers' effectiveness, improves communication efficiency, promotes language proficiency development, and facilitates the creation of engaging learning experiences in foreign language teaching. Because of the accompanying optimism and enthusiasm, many language educators view communicative technologies as indispensable resources for modern language instruction. Overall, the results support that a usability factor should be considered when choosing collaborative technologies for teaching FL, where the user and their needs are central, and the idea of constructivism plays a significant role.

Keywords: Collaborative technology, communication, English as a foreign language, learning experience.

Public Interest Statement

This in-depth study investigated the contribution of university lecturers to learning development through collaborative technology tools and the knowledge students acquired in language learning. The study proved that the effect was comprehensive, supporting a multi-decision approach to language acquisition. Collaborative technology can play a role.

1. Study Background and Context

Technology has revealed its importance in modern teaching methods along with the rapidly transforming educational environment. However, another incredible revolution has occurred in foreign language training as collaborative technologies have progressed. Our study is a worthy contribution to the corpus of current knowledge by carefully exploring the soft effects of collective technological progress in language learning. While the digitalization of instructional technology and digital platforms is to be integrated into language learning, we must research how it affects children, given the changing nature of learning a foreign language. Several studies, for instance, that of Golonka et al. (2014), Cakici (2016) and García and Astruc (2012), prove the effectiveness of various technologies in enriching the learning of languages. Given the high complexity of these tools, lecturers and students must develop a critical awareness of the benefits and drawbacks they can bring to teaching.

The study had three key objectives to be examined. The aim is to research how FL instructors incorporate collaborative tools into teaching foreign languages. The second task is to examine the role of collaborative technologies in teaching foreign languages. The last objective is to examine specific ways in which collaborative technologies enhance the proficiency of FL undergraduates. TheseThese objectives form the basis for the analysis of this thesis.

2. Review of Related Studies

2.1.Typology of Collaborative technologies in FL Education; An Empirical Review

Language instruction can no longer be imagined without a wide range of collaborative technologies that appeared in later years, each with its peculiar functionalities and capabilities. In their study, Wang and Vásquez (2012) empirically show how social networking sites (i.e., Web 2.0) and online learning environments are becoming increasingly instrumental in enhancing language proficiency gains. Their investigation concerns whether the application of technologies contributes to collaborative learning, communication and interaction, which are no longer confined to the traditional classroom limits. This paving-stone research builds a base for understanding the constant interplay between language teaching and the growing digital platforms that never cease to expand as technology evolves.

The tech-supported collaborative language learning essay by Su and Zou (2022) focuses on the current trends regarding technology use and the language education field. Thus, the authors add their voices to the discussion. It is necessary for instructors who wish to ultimately increase the effectiveness of their teaching when using such technologies to gain a deep understanding of how the internal motivational forces tool them. Additionally, from a more comprehensive perspective on how the diversity of technological environments is dealt with in language education, Kukulska-Hulme and

Viberg (2018) have some more enlightening views on mobile collaborative language learning. Their in-depth research of modern mobile language learning approaches from a collaborative standpoint presents a contemporary view of the actual status of collaborative technologies. This research enriches the existing literature about the power of mobile devices, which possess special collaboration abilities and can expand language learning opportunities across separate educational spaces (Milton & Garbi, 2000; Griffth, 2014; Gonzalez-Lloret, 2020).

Sivabalan and Ali (2019) analyze mobile instant messaging as a cooperative tool in language acquisition. This research aims to show the specific features of language usage through instant messaging platforms. It highlights their dynamic and connecting characteristics. The research focused on the employment of collaborative technology in the hybrid classroom environment, where students' affective and cognitive aspects will be studied. This study analyzes the influence of cooperative technologies, particularly in blended learning environments, on learner's ideas about learning results and their stress levels. Technology is no longer discussed solely in terms of technology but through the comprehensive understanding of human dimensions of collaborative technology in foreign language education. However, this analysis is enhanced by their examination of the psychological and mental status of technology-enhanced collaboration.

These research articles briefly overview the various collaborative technologies applied to learning and acquiring foreign languages. These platforms are summarized as discussion forums, collaborative writing tools, mobile-assisted learning, instant messaging, and hybrid learning settings (Avci & Adiguzel, 2017; Isisag, 2012; Ngo, 2018). All individual studies add another piece to the puzzle of the specificities of how technologies play a crucial role within collaborative language learning situations and are the agents of changing pedagogical domains. This corpus of scholarly work gives a critical and multifaceted opinion of collaborative technology attributes and groups as they observe language learning (Ovarzun & Martin, 2023; Zaphiris & Loannu, 2015). These investigations, which are at all times from seminal analysis of Web 2.0 and second language acquisition to the current issues which revolve around integration and mobile-assisted learning, demonstrate to the language education field the fantastic ways in which collaborative technologies influence the field (Lee et al., 2021; Istifci & Zeki, 2011).

2.2.Theoretical Basis for the Study

Constructivism theory was selected to meet the stated goals of the research. Constructivism, the proposed educational theory, asserts that every individual's learning occurs constantly as they gain new information about the world. According to Piaget and Vygotsky, the two prominent philosophers of constructivism, the learner-centric approach lies at the core of their work, emphasizing learner engagement in knowledge construction. Collaborative technologies, such as interaction with peers or technologies, become part of students' learning experience; hence, developing their understanding of how these technologies facilitate the co-construction of knowledge may necessitate acknowledging this fact.

The intricacies of education in a language domain and technology have been researched widely using constructivist theory as a theoretical construct. Alemi (2016) projects the constructivist position of how integrating advanced technologies into language instruction can be effectively done based on student participation. Collaboration technologies in foreign language education are the central focus of this paper, and a framework of constructivism is used to analyze the impact on foreign language learning. This theoretical framework is based on the learner perspective, which is constructivism-inclined and in harmony with the characteristics of technology-based language learning environments that are collaboration- and participation-oriented. A theory that considers the social, interactive, and dynamic elements of technology-enhanced language education is imperative, given the vast array of collaborative

technologies investigated in this research, including mobile-assisted learning, instant messaging platforms, and threaded discussions. This study endeavours to elucidate the collaborative, learner-driven mechanisms that influence language acquisition in technologically mediated environments, employing a constructivist framework.

3. Study Methodology

3.1.Research Questions

The following research questions, drafted from the expanse literature review and already developed objective, are submitted below to further guide the study.

a) To what do FL lecturers integrate collaborative technologies in teaching foreign languages?
b) What are the effects of collaborative technologies on the teaching of foreign languages?
c) In what specific ways do collaborative technologies enhance the proficiency of FL undergraduates?

3.2.Study Approach

The use of the quantitative study approach has been every day in research that seeks to unveil the impacts, influence or effects of one variable on another. This approach enables the exploration of the features of one variable and how it improves or enhances the functionality of another. In this study, a quantitative approach is adopted using numerical data to explore the impacts of collaborative technologies on teaching foreign languages. Through the use of survey study design, the adoption of a quantitative approach is justified as it offers a more objective system to evaluate the views of the participating lecturers on how collaborative technologies have impacted their teaching of foreign languages.

3.3.Study Population

Lecturers occupy significant positions in the academic trajectory, both in shaping their students' education experiences and directing them to structure that future after school. With their wealth of knowledge and extended experiences in foreign language education and techniques, foreign language lecturers are critical stakeholders in understanding the impacts of technological innovations in foreign language education. As such, they are engaged in this quantitative study to gain insights into how collaborative technologies have facilitated the teaching and learning of foreign languages at the tertiary education level. These academic authorities are drawn from different regions and locations, but they are currently teaching one foreign language or the other at their respective universities.

3.4.Study Sampling

There are avalanches of lecturers teaching different foreign languages at different levels in each nation and region. To conduct this study, 293 lecturers who are currently teaching five different foreign languages participated. Through a purposive sampling technique, these lecturers were engaged in the research, and their inputs form the basis for the analysis and conclusions reached in this study.

3.5.Study Tools

Survey studies primarily employ well-designed questionnaires to elicit the views of the study population on specific issues. This paper used a questionnaire designed using Google Forms to get the views of the lecturers who participated in this study. Using a questionnaire structured with a 5-point Likert scale is effective in this research as it enables the collection of numerical views that can be subjected to statistical measures to determine the impacts of collaborative technology in teaching foreign languages.

3.6.Data Collection Procedure

The digitally designed questionnaire for this study was segmented into four major parts. The first section of the questionnaire encodes the demographic variables (age, gender, highest academic qualification, and years of experience). The second section contains questions on the usage of collaborative technologies in teaching foreign languages, which is further segmented into using online learning platforms in different dimensions (three survey questions) and video conferencing tools (3 survey questions). This section also takes into account ease of usage. The third section, containing four survey questions, expands on the specific impacts of these collaborative technologies in teaching foreign languages. The last section, with four survey questions, delves into how these collaborative technologies impact the proficiency of foreign language undergraduates.

3.7.Data Analysis Procedure

All the collected data are analysed using relevant statistical measures, including calculating and presenting the percentile values of the Likert scales and the mean and standard deviation of survey inputs in well-constructed descriptive statistics tables. The results of the demographic variables are also summarised in a table.

4. Results and Discussion

4.1. Characteristics of Participants

Part of the data collected includes the demographic information of the participants, including their gender, age, academic qualification and years of experience in the language teaching profession. The results of these participants' characteristics are summarised in the table below:

Table 1: Results of the Demographic Variables

Categories	Variables	Frequency	Percentage
Gender	Male	186	63.48%
	Female	107	36.52%
Age range	30 years and below	11	3.76%
	31-39 years	32	10.45%
	40-49 years	63	21.58%
	50-59 years	152	52.05%
	60 years and above	35	11.09%
Highest Academic Qualification	Masters Degree	69	23.63%
	PhD/Post Doctorate	224	76.37%
Years of Experience as foreign language Lecturers	4 years and below	13	4.44%
	5-9 years	49	16.75%
	10-14 years	133	45.55%
	15 years and above	98	33.55%

Table 1 provides an all-encompassing overview of the demographic and professional attributes of the foreign language lecturers. Gender distribution may conceivably impact patterns of collaborative technology utilisation, as evidenced by fewer participants (36.52%) being female, while male lecturers (63.48%) constitute a majority. Concerning the distribution of ages, a significant percentage (52.05%) comprises lecturers in the middle of their careers who possess a wealth of experience and unique viewpoints that can contribute to integrating collaborative technologies in FL. The academic credentials

of the lecturers increasingly influence the analysis of collaborative technologies, as 76.37 % hold a PhD or higher. This highlights the criticality of lecturers possessing advanced academic backgrounds. A significant proportion (45.55%) possess 10-14 years of experience in foreign language teaching, and a wealth of pedagogical knowledge characterises this population.

4.2.Results of Major Survey Questions

a) Results of the Integration of Collaborative Technologies in Foreign Language Education

Finding out how often lecturers utilise collaborative tools while teaching FLs was the primary goal of the first study question. This survey question examined three aspects of FL education technology: online platforms for instruction, video conferencing technologies, and the perceived ease of use of these two systems for collaboration. Babbel, HelloTalk, and Duolingo are the mainstays of online FL education platforms, while Zoom, Microsoft Team, and Google Meet are the workhorses of virtual FL classrooms. Below, you may see a graph, two tables, and the outcomes of the data collection process.

Table 2: Results of the Usage of Online FL Teaching Technological Platforms

Survey Items	SA	A	N	D	SD	Means	Std. Dev
I have been using different online teaching platforms to improve my students' FL proficiency	31.85	50.16	5.33	9.53	3.13	4.17	0.98
Platforms such as Babbel, Duolingo and others increase the engagement and motivation of FL students	36.83	55.17	3.06	2.62	2.32	4.88	0.62
Using these online platforms has facilitated my teaching of FLs at the university level	30.05	53.13	4.09	9.28	3.45	4.39	0.83

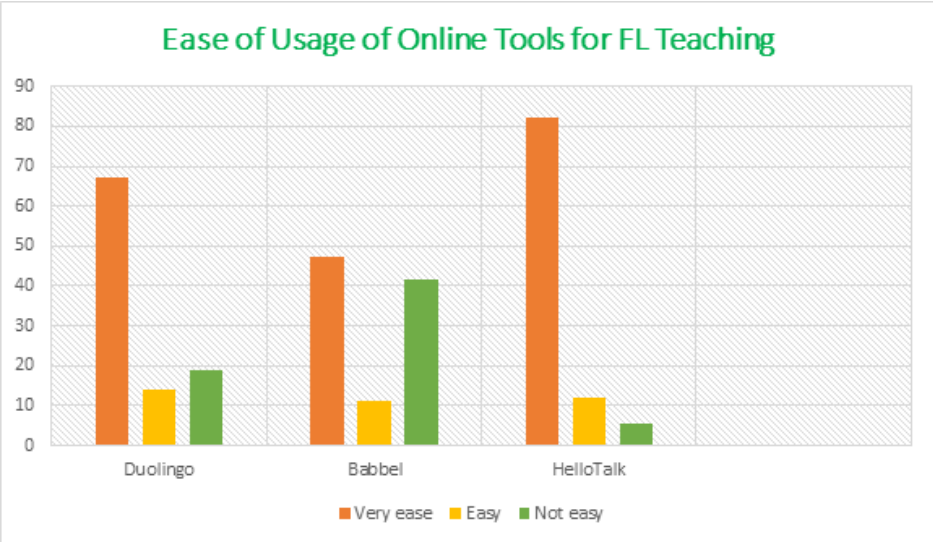
After analysing the survey responses in connection with the research inquiry, it is evident that the lecturers have a moderately receptive disposition (Mean = 4.17) towards utilising different online teaching platforms to improve students' foreign language proficiency. This indicates that they acknowledge the potential of technology in language education. Furthermore, the response from FL lecturers regarding the effectiveness of platforms such as Babbel and Duolingo on student engagement and motivation was predominantly positive (Mean = 4.88). In addition, the 0.62 value of standard deviation (SD) signifies an apparent convergence of views about social media's impacts. Since the findings correspond with the thoughts put forward in the research about the role of technology use in terms of motivation, this proves the consistency between the main idea in the literature and the findings in the study. Hence, the proffer of students (Mean = 4.39) and little difference in their opinion (SD = 0.83) regarding how online platforms can facilitate English/foreign language teaching at the tertiary level depicts the reassuring perception of lecturers about the contribution of technology in the field. In total, the findings portray a harmonious story where language instructors are aware of collaborative technologies and, under their guidance, can assist their students in mastering the language, engage them, and ease the teaching process. The outcomes of this research exemplify how the use of technology in language teaching already supports the main claim about the benefits of collaboration in teaching foreign languages and increases our perception of the relationship between collaborative technologies and language learning.

Table 3: Results of the Virtual Conferencing Collaborative Tools for FL Teaching

Survey Items	SA	A	N	D	SD	Mean	S t d . Dev
I commonly use Zoom, Microsoft Team, and Google Meet for teaching FLs	41.22	52.05	1.19	4.31	1.26	4.93	0.57
Due to the full integration of digital tools in teaching, the collaborative technological tools have facilitated and eased FL teaching at the university level	39.41	57.73	1.44	1.42	-	5.17	0.48
These virtual collaborative technological tools form the basis for the structuring FL curricula and teaching materials	21.95	49.35	7.23	17.03	4.44	4.22	1.15

The initial survey item demonstrates a unanimous agreement, as 93.27% of respondents hold favourable opinions regarding the widespread utilisation of virtual meeting platforms, including Zoom, Microsoft Teams, and Google Meet. This highlights the broad recognition of the effectiveness that these platforms bring to the table in terms of language teaching. Similarly, the acceptance rate for the second survey item, which concerns the complete integration of digital tools in teaching, is an astounding 95.14%. This figure signifies a solid consensus among foreign language lecturers concerning the constructive impact of fully integrated digital tools on enhancing university-level teaching. In contrast, the third item of the survey, which investigates the utilisation of virtual collaborative technological tools in curriculum development, elicits a more nuanced viewpoint, as 70.3% of respondents indicate their acceptance. Notwithstanding the discrepancies, the results above underscore a favourable tendency towards collaborative technologies, emphasising their pivotal significance in influencing present-day language education methodologies.

Figure 1: Result of Ease of Use of Collaborative Technologies in FL(Online Platforms)



Focusing on Duolingo, Babbel, and HelloTalk, figure 1 depicts the perceived ease of use of online collaborative applications for foreign language education. It is worth mentioning that Duolingo stands out as the programme that has the most effective perceived ease of use at 67.18%. This is likely due to its interactive features and user-friendly user interface (UI). However, Babbel still has a relatively low percentage (47.32%), which may indicate that users have different experiences or preferences regarding how easy it is to use. Among the many aspects that make HelloTalk stand out, its user-friendly design and collaborative language exchange capabilities are most emphasised by its high ease of use perception of 82.33%. In brief, the graphic shows how different people rate the ease of use of various online

collaboration tools; this sheds light on how different people learn languages and their preferences in the field, and it fits in with the literature on the many effects of language learning technology.

Figure 2: Perceived Ease of Use of Virtual Conferencing Tools as Collaborative Technological Tools for

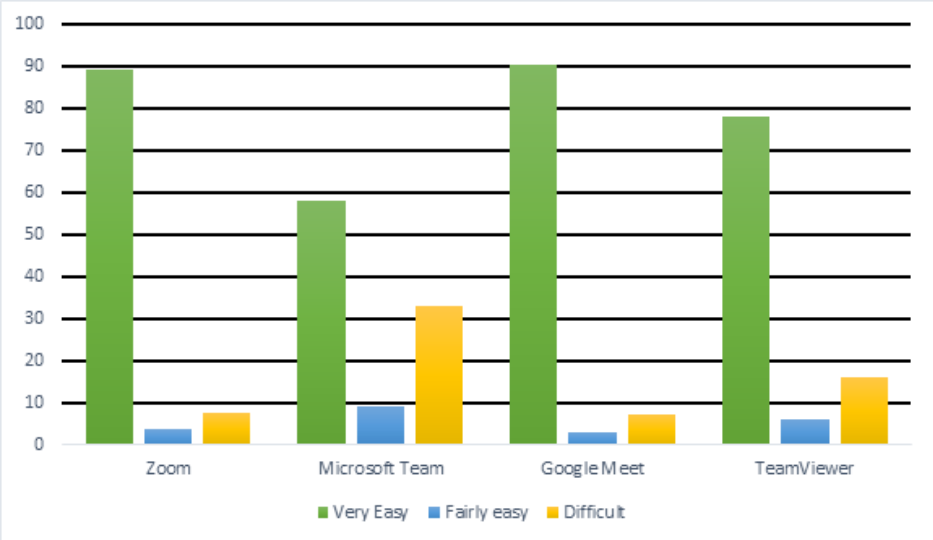


Figure 2 depicts the perceived level of user-friendliness associated with several virtual collaboration technologies used in the context of foreign language teaching. Specifically, the analysis focuses on Zoom, Microsoft Teams, Google Meet, and TeamViewer. It is worth noting that Zoom and Google Meet indicate very high levels of perceived ease of use, with scores of 89.06% and 90.13%, respectively. Furthermore, it is worth noting that Microsoft Teams and TeamViewer, while acknowledged for their user-friendly nature with percentages of 57.97% and 77.95%, respectively, have somewhat lower percentages in comparison. The observed variation may be ascribed to the distinct capabilities and features that each tool provides, underscoring the need for lecturers to conscientiously choose tools that correspond with the pedagogical goals of their language teaching. The results highlight the significance of considering the usability factor when choosing virtual resources for language teaching, emphasizing an approach that prioritises the user and conforms with the principles of constructivism.

b) Results of the perceived Effects and Usefulness of the Collaborative technological Tools in FL Teaching and Learning

The second research question is predicated on unveiling how lecturers perceived the usefulness and effects of collaborative technological tools in teaching and learning foreign languages. The focus is to understand how these tools help the lecturers to teach foreign languages (FLs). These results are contained in Table 4 below.

Table 4: Results of the Perceived Usefulness and Effects of the Collaborative Tools

Survey Items	SA	A	N	D	SD	Mean	Std. Dev
Collaborative technological tools enhance the overall effectiveness of my foreign language teaching.	31.77	57.83	2.64	6.43	1.33	4.86	0.71
Integrating collaborative technological tools in my teaching enhances the efficiency of communication and collaboration among students.	38.07	55.19	1.28	3.73	1.73	5.16	0.52

Collaborative technological tools contribute significantly to the development of students' language proficiency in my foreign language classes.	36.62	59.52	1.63	2.23	-	5.31	0.43
The use of collaborative technologies is important for creating interactive and dynamic learning experiences in my foreign language teaching	42.06	50.66	-	5.11	2.17	5.39	0.41

The data shown in table 4 demonstrates a strong consensus and favourable support among university lecturers about the perceived use and efficacy of collaborative technology tools in teaching foreign languages. The survey results indicate a constant prevalence of unanimous approval (Strongly Agree and Agree) across all survey questions, with percentages ranging from 89.60% to 96.14%. This suggests a solid consensus among participants about the excellent effect of these tools. In contrast, it is noteworthy that the degrees of disagreement, namely the categories of Disagree and Strongly Disagree, exhibit consistently low percentages, ranging from 1.28% to 6.43%. The range of mean scores, which varies from 4.86 to 5.39, provides additional evidence to support the notion of a high level of acceptance. These scores indicate a shared recognition of the significant impact that collaborative technologies have on improving teaching effectiveness, enhancing communication efficiency, promoting language proficiency development, and facilitating the creation of engaging learning experiences in foreign language teaching. The overwhelming optimism surrounding them underscores the broad acceptance of collaborative technologies as essential assets in contemporary language teaching.

Results on Specific Ways Collaborative Technologies Enhance the proficiency of FL Undergraduates

Research question 3 discusses how collaborative technologies facilitate and enhance the language proficiency of FL undergraduates. The results are contained in table 5 below:

Table 5: Results of Impacts of Collaborative technologies on Students' proficiency in the FL

Survey Items	SA	A	N	D	SD	Mean	Std. Dev
Collaborative technological tools, such as online language platforms and virtual language exchange programs, have positively contributed to my students' overall language proficiency development	33.96	59.12	2.07	4.85	-	5.21	0.49
The use of collaborative technologies has enhanced my students' speaking and listening skills in the target foreign language.	37.84	55.16	-	4.11	2.89	5.14	0.51
Collaborative technological tools have played a significant role in fostering a more immersive and authentic language learning experience for my students	30.19	58.67	3.19	6.33	1.62	4.84	0.63
The incorporation of collaborative technologies has positively influenced my students' writing and reading proficiency in the foreign language	38.15	49.86	2.71	8.42	0.86	4.75	0.69

The results from table 5 show that almost all of the lecturers agree that collaborative technology tools have helped their undergraduate foreign language students greatly in developing their language skills. The majority of lecturers (varying from 88.01% to 93.08% overall) believe that these technologies

have a favourable effect on students' ability to read and write, as well as on their ability to participate in immersive learning experiences and improve their overall language competence. The outcomes align with the ideas of constructivism, which emphasise learning environments that are both participatory and genuine. The low standard deviations and continuously high mean scores (range from 4.75 to 5.21) indicate that lecturers are highly in agreement about the revolutionary potential of collaborative technology. These results highlight the extensive and beneficial impact of collaborative technology tools on improving several aspects of students' language skills.

4.3. Discussion of Findings

Collaborative technological tools have positively impacted teaching and learning foreign languages at the tertiary education level. The results of the presented data offer insights into various aspects of the integration of collaborative technologies, the effects of teaching foreign languages, and the direct impacts on the FL proficiency of undergraduates. The findings are further discussed in different subparts, including the research questions and objectives of the study.

4.3.1. Discussion of Findings Related to Research Question One

The first research question focuses on integrating collaborative tools in FL teaching. The results are in Tables 2 and 4 and Figures 1 and 2 in the data presentation. Table 2 presents an in-depth analysis of how lecturers of foreign languages (FL) incorporate collaborative technologies into the classroom. This analysis illuminates various aspects of the lecturers' experiences and perspectives. Intricately investigated via survey items that delve into particular facets of technology integration, the research inquiry "To what extent do FL lecturers incorporate collaborative technologies in the teaching of foreign languages?"

Table 3 serves as an extended discussion on how Foreign Language (FL) instructors integrate collaborative technologies into their teaching approaches, characterizing detailed dimensions of technology implementation. Surprisingly, the second survey question elicited a strong response, as 93.27% of participants approved the possibility of FL teachers holding run-time lectures on virtual meeting platforms. This finding fits with the results of the studies of Grabowski et al. (2009) and Toledo and Díaz (2017) that show a considerable use of virtual collaborative tools in language education due to 0.57 as a measure of low standard deviation. Lecturers using these media prove that they are sensitive enough to understand the role of technology in learning by interaction and asking questions; this comes along with the constructivist values, which focus on learning through joint activities. Regarding the second survey item that elicits teachers' opinions on the efficiency of fully integrating digital tools into teaching, 95.14% of foreign language teachers expressed excellent acceptance in the country. In agreement, the low standard deviation (0.48) shows a high consensus that fully digital tools have a good impact. As participants Su and Zou (2022) and Weasenforth et al. (2002) argued, technologies employed in the collaborative learning process assist in building interactive and learner-type surroundings. Furthermore, technology serves not only as a tool but also as part of the learning process that involves direct participation, cooperation, and knowledge building, which underlies the perception of the role of technology in teaching enhancement from the lecturers' point of view that reflects a constructivist view. About the third survey, which analyzed the utilization of virtual collaborative technological tools to organize foreign language curricula and teaching materials, the different responses (mean = 4.22, standard deviation = 1.15) imply that the lecturers of FL have some differences of opinion as the core role play by these tools in curriculum development. However, there is some fluctuation, and 70.3% (SA + A) of residents confirm their acceptance. This figure validates the views influenced by Kukulska-Hulme and Viberg (2018) and Wang and Vásquez (2012) on technology and curriculum design. According to

the constructivist approach, a well-designed methodology should be flexible and learner-centred. The diverse reactions indicate that FL tutors might use technology in multifarious ways to organize their teaching materials; this shows the ability to change, which is inherent to the constructivist approach.

The outline in Table 3 allows for a detailed assessment of how FL teachers use collaborative technologies in their pedagogical method. The remarkably high acceptance rates prove the wide recognition of the value of these technologies in language education and strengthen constructivist ideas through fostering student-active participation, collaboration, and knowledge development. The various perspectives on the main objective of virtual collaborative tools in curriculum development amplify that technology integration is a complex issue. Although the opportunities these tools open are undeniable, they allow different approaches to be applied to combine them with constructivist principles in language learning.

Fig. 1 shows the degree of user-friendliness features followed by online tools for teaching foreign languages involving Duolingo, Babbel, and HelloTalk. The ease of using Duolingo is 67.18%, which shows its ease of use and interactive features. This observation aligns with the general discourse on the positive effects of technology on learning a language, as demonstrated in studies, including the one by Golonka et al. (2014), where the variety of technologies, including language learning applications, are highlighted as practical tools. However, the 47.32% for user-friendliness recognition by Babbel ranks relatively lower than others, which could imply differences in the experiences or preferences of users. This is in line with Wang's (2007) multi-faceted evaluation of the usefulness of language learning tools. The highest level of ease-of-use perception is given to HelloTalk, which highlights the benefit of this app's collaborative language exchange features and user-friendly design (82.33%). This is in line with the conclusions presented by Sivabalan and Ali (2019) about the collaborative features of mobile instant messengers that can contribute to language learning. The diagram illustrates two opposite arguments on the complexity level using different online collaborative applications. By doing this, the study reveals an array of diverse user experiences and preferences in foreign language teaching, consistent with previous research that addresses the multidimensional impact of language learning technologies.

4.3.2. Discussion of Results related to Research Question Two

The findings presented in Table 4 give an insight into views from the university lecturers listing the positive and negative sides of collaborative technological tools in teaching foreign languages. Starting from the first survey question, "Collaborative technological tools do give boosts to the overall efficacy of my foreign language teaching," a big part of the respondents (89.60% - SA + A) had a favourable opinion, showing us how vital these tools are in enhancing language teaching and its effectiveness. This finding is approximate to other research, such as that of Toledo and Díaz (2017) and Su and Zou (2022), which investigated the positive aspect of collaborative technologies to improve teaching performance. This consistency is also highlighted by the mean score of 4.86 and the low standard deviation value of 0.71. These findings validate the clear evidence from the research highlighting the crucial role collaborative means play in learning a foreign language.

Concerning the second survey question, "The introduction of collaborative technological tools for my teaching makes communication and student collaboration better", lecturers are nearly equally agreeable (93.26% - SA + A). It corresponds to the principles of constructivism, which highlight that the educational context is more effective when learners interact and work together (Weasenforth et al., 2002; Su & Zou, 2022). The constant giving of collaborative tools being the cause of quickness of communication and smoothness of collaboration is justified by the highest mean score, 5.16, and the lowest standard deviation, 0.52. As for the third answer to "Collaborative technological resources

significantly contribute to developing students' foreign language skills in my foreign language classes," 96.14% (SA + A) lecturers believe that these resources have a crucial role in defining students' foreign language skills.

Furthermore, the constantly observed positive evaluations, which are expressed by university lecturers, regarding the effectiveness and usefulness of collaborative technological instruments, corresponding to the principles of constructivism, an instructional theory that emphasizes learner-centeredness, collaboration, and active participation (Weasenforth et al., 2002; Su & Zou, 2023). The strong agreement among respondents across the survey items suggests that the use of collaborative tools significantly increases teachers' effectiveness and student achievements in a foreign language learning context. The reasoning that collaborative technologies are not just tools but also crucial components of an interactive and participatory learning setting is further supported by the results of these studies, which provide proof of the correlation between these results and constructivist theory. The overall agreement percentage as far as the positive impacts of technology on language learning outcomes is consistent (Golonka et al., 2014; Wang, 2007). With this result, university instructors believe that collaborative technological tools are practical resources that help them deal with students' language proficiency development. The evident low standard deviations also support the opinion that the pervasive positive influence on language proficiency is widely accepted among lecturers.

4.3.3. Discussion of Results related to Research Question Three

The findings in Table 5 demonstrate how and how collaborative technology tools improve undergraduate students' foreign language competency. Indicative of the first questionnaire question is, "Collaborative technological tools incorporating virtual language exchange programs and online language platforms have positively contributed to the overall language proficiency of my students." 93.08% of the respondents who responded positively accounted for (SA + A). This is why these tools are crucial in changing their students' language proficiency. Such a concept is closely related to the basic principles of constructivism, which emphasize group learning and active participation (Weasenforth et al., 2002; Su & Zou, 2022). In the lecturers' collective agreement, with a mean score of 5.21 and a standard deviation of 0.49, the professors' scores all show up positive regarding the cornucopia and all-inclusive nature of the collaborative tools impact on enhancing language proficiency.

The response to the second questionnaire item, "Collaborative technology has helped the development of my learners' speaking and listening skills in the target foreign language", shows significant agreement with 93.00% (SA + A), strengthening the vital role the tools have in the development of the skills that are necessary for the efficient use of the language. The outcome conforms to constructivist concepts emphasizing interactive and communicative language learning (Su & Zou, 2022). A low term deviation of 0.51 and a mean score of 5.14 show in favour of collaborative technologies as they have an affirmative effect on the student's listening and speaking proficiency.

Item 3's results, "The implementation of joint technological tools made it possible for the students to experience a more authentic and immersive language learning," show that 88.86% of lecturers agree (SA + A). These findings indicate that lecturers have positive opinions concerning the issue. Similarly, constructivism, which primarily emphasizes creating authentic and experiential learning environments (Weasenforth et al., 2002), supports that. The data indicates widespread agreement regarding the transformative potential of collaborative tools to offer students immersive language experiences, thereby fostering a more profound comprehension of the target language (mean score: Mean = 4.84, standard deviation =0.63.

In brief, the acceptance percentage of the fourth survey item, which asserts that "the integration

of collaborative technologies has had a positive effect on my students' abilities of writing and reading in the foreign language," is a substantial 88,01% (as a summation of strong agreement - SA- and agreement - A). This discovery indicates that collaborative tools are multi-dimensional, touching on verbal communication, literacy, and reading skills. Weasenforth et al. (2002) contend that the constructivist view integrates all kinds of learning modes into the language learning process, linking different learning modalities to language acquisition. The mean score of 4.75 and standard deviation of 0.69 provide additional evidence from the lecturers supporting these technologies' overall positive effect on a broad range of language performance skills.

The bulk of the findings generated from all items in the survey will be used to give a holistic picture of the technologies applied and how they build the capacity of foreign language learners. The results demonstrate comprehensively the positive effects of the acquisition of overall language proficiency, growth and development in reading and writing abilities, and creation of immersive learning environments as well as oral ability.

5. Conclusion

This in-depth study investigated the contribution of university lecturers to learning development through collaborative technology tools and the knowledge students acquired in language learning. A survey of most lecturers showed that most of them are convinced that collaborative technologies are beneficial in learning languages. Adopting the technology across several domains attested to the fact that the survey results enabled the tools to be revolutionary. As stated by most teachers, the advantage of collaborative technology is that it improves communication, facilitates learning, and enhances students' language abilities. This result is based on constructivist theory, which focuses more on progressive and learner-oriented language training and instruction methods.

The survey results became the basis of a detailed pattern depicting the precise effects of collaborative technology tools on the development of language skills. The professors commended the tools for increasing students' reading and writing competence and language learning, listening skills, and the power of creating immersion learning situations. The study proved that the effect was comprehensive, supporting a multi-decision approach to language acquisition. Collaborative technology can play a role. Besides the fact that these findings supplement the research on educational technology, they also give language teachers some advice on how to achieve this goal by using collaborative technologies.

Additionally, the research explored the range of collaborative technologies language teachers employ, including online forums, VLEs, and other web resources. A wide variety of technologies used in language instruction could be a sign that teachers are ready to transform with the ever-changing educational environment. The teachers, institutions and legislators working in this area could learn a lot from the results of this work. Finally, this study's results underline the positive attitude toward applying collaborative digital technologies in ESL classrooms and their many different effects.

The impacts of collaborative technological tools on teaching foreign languages can be best understood because the article is based on a comprehensive analysis of the data collected from university lecturers. These technologies can transform language learning as teachers generally view them as a significant avenue for improving teaching methods, communication efficacy, and students' ability to master a language quickly. In agreement with constructivism principles, the results show the importance

of a student-centred interactive approach to teaching language classes. Furthermore, a very detailed description of how collaboration technologies promote language skills is also exhibited in the process. These means are overall language competence, speaking and listening skills, immersion experiences, and reading and writing. The research then gives a glimpse into a wide range of collaborative learning technologies employed by faculty members, showing how teachers can appropriate various tools and tailor their teaching practice to the evolving educational setting. Empowering teachers' perspectives on positive recognition and multidimensional influences of collaborative technological tools in foreign language teaching, this study's conclusions portray priceless information for educators, institutions, and policymakers. They will continue to promote and implement fresh ideas and the latest technologies into language education.

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Author Biodata

Muhammad Salim Al-Khasawneh holds a PhD in Special Education from Amman Arab University, 2009. He is currently working as an Assistant Professor in Special Education at King Khalid University from 1/9/2015 until now. He worked as an assistant professor of special education at the University of Hail from 1/9/2009 to 1/9/2014. He is a licensed Photosensitivity Syndrome (SSS) screener by the Irlen Helen Center. And a licensed examiner to measure and diagnose learning difficulties from the Jordanian National Institute for Learning Difficulties. He is also a scientific advisor to Dar Al-Fikr for Publishing and Distribution, Amman. He is an academic scholar in Wasit University Journal.

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References

Alemi, M. (2016). General impacts of integrating advanced and modern technologies on teaching English as a foreign language. *International Journal on Integrating Technology in Education*, *5*(1), 13-26.

Anderson, R., Anderson, R., Linnell, N., Pervaiz, M., Saif, U., & Videon, F. (2009, April). Collaborative technologies in international distance education. In *2009 13th International Conference on Computer Supported Cooperative Work in Design* (pp. 522-527). IEEE.

Avci, H., & Adiguzel, T. (2017). A case study on mobile-blended collaborative learning in an English as a foreign language (EFL) context. *International Review of Research in Open and Distributed Learning*, *18*(7).

Aydin, S. (2018). Technology and foreign language anxiety: Implications for practice and future research. *Journal of Language and Linguistic Studies*, *14*(2), 193-211.

Cakici, D. (2016). The use of ICT in teaching English as a foreign language. *Participatory educational research*, *4*(2), 73-77.

de Lurdes Martins, M. (2015). How to effectively integrate technology in the foreign language classroom for learning and collaboration. *Procedia-Social and Behavioral Sciences*, *174*, 77-84.

Esteban, S. G., & Martínez, C. T. (2014). Critical reflections on teaching ESP through constructivist, communicative and collaborative technological integrated procedures. *Procedia-Social and Behavioral Sciences*, *141*, 342-346.

García, P. M., & Astruc, L. (2012). Motivating students through technology: using media and collaborative technologies in language teaching and learning. In *INTED2012 Proceedings* (pp. 1594-1603). IATED.

Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L., & Freynik, S. (2014). Technologies for foreign language learning: A review of technology types and their effectiveness. *Computer assisted language learning*, *27*(1), 70-105.

González-Lloret, M. (2020). Collaborative tasks for online language teaching. *Foreign Language Annals*, *53*(2), 260-269.

Grabowski, M., Lepak, G., & Kulick, G. (2009). Collaborative technology impacts in distributed learning environments. In *Innovative Mobile Learning: Techniques and Technologies* (pp. 123-144). IGI Global.

Griffith, P. (2014). Impacts of online technology use in second language writing: A review of the literature. *Reading Improvement*, *51*(3), 303-312.

Hopkins, M., Lin, M. H., & Nariswari, A. (2023). Collaborative technology in a hybrid learning context: exploring feeling at ease and perceived learning among college students. *International Journal of Educational Management*.

Isisag, K. U. (2012, November). The positive effects of integrating ICT in foreign language teaching. In *International conference proceedings. ICT for Language Learning*.

Istifci, I., & Zeki, K. A. Y. A. (2011). Collaborative learning in teaching a second language through the internet. *Turkish online journal of distance education*, *12*(4), 88-96.

Kukulska-Hulme, A., & Viberg, O. (2018). Mobile collaborative language learning: State of the art. *British Journal of Educational Technology*, *49*(2), 207-218.

Lee, S., Kuo, L. J., Xu, Z., & Hu, X. (2022). The effects of technology-integrated classroom education on K-12 English language learners' literacy development: a meta-analysis. *Computer Assisted Language Learning*, *35*(5-6), 1106-1137.

Milton, J., & Garbi, A. (2000). VIRLAN: Collaborative foreign language learning on the Internet

for primary age children: Problems and a solution. *Journal of Educational Technology & Society*, *3*(3), 286-292.

Ngo, C. L. (2018). A review of research in mobile assisted collaborative language learning. *VNU Journal of Foreign Studies*, *34*(4).

Oyarzun, B., & Martin, F. (2023). A Systematic Review of Research on Online Learner Collaboration from 2012-21: Collaboration Technologies, Design, Facilitation, and Outcomes. *Online Learning*, *27*(1).

Sivabalan, K., & Ali, Z. (2019). Mobile instant messaging as collaborative tool for language learning. *International Journal of Language Education and Applied Linguistics*, 99-109.

Su, F., & Zou, D. (2022). Technology-enhanced collaborative language learning: theoretical foundations, technologies, and implications. *Computer Assisted Language Learning*, *35*(8), 1754-1788.

Toledo, H. M. M., & Díaz, J. M. C. (2017). Exploring the role of technology through collaborative learning in Ecuadorian language education. *INNOVA Research Journal*, *2*(10.1), 1-11.

Wang, S., & Vásquez, C. (2012). Web 2.0 and second language learning: What does the research tell us?. *CALICO journal*, *29*(3), 412-430.

Wang, Y. (2007). Are we ready? A case study of technology-enhanced, collaborative language learning. In *Proceedings of the World Congress on Engineering and Computer Science 2007* (pp. 1-5).

Weasenforth, D., Biesenbach-Lucas, S., & Meloni, C. (2002). Realizing constructivist objectives through collaborative technologies: Threaded discussions.

Zaphiris, P., & Ioannou, A. (2015). *Learning and Collaboration Technologies*. Cham: Springer.

Zhang, R., Zou, D., Cheng, G., & Xie, H. (2022). Implementing technology-enhanced collaborative writing in second and foreign language learning: A review of practices, technology and challenges. *Education and Information Technologies*, *27*(6), 8041-8069.