Article

Teacher perspective of collaborative game elements on language acquisition

Berivan Mohammed Ahmed Abdullah[1], Ilona Dora Dabney-Fekete [2] and Tímea Ceglédi [3]

[1]*Doctoral Program on Educational Sciences, University of Debrecen, Debrecen, Hungary. University of Zakho, Kurdistan Region, Iraq*
[2]*MTA-DE Future Awareness Development Research Group, Institute of Educational Studies and Cultural Management, Faculty of Humanities, University of Debrecen, Debrecen, Hungary*
[3]*MTA-DE Future Awareness Development Research Group, Institute of Educational Studies and Cultural Management, Faculty of Humanities, University of Debrecen, Debrecen, Hungary*
berivan.abdullah@uoz.edu.krd ; fekete.ilona@arts.unideb.hu ; cegledi.timea@arts.unideb.hu

Abstract

In English as a Foreign Language (EFL) classrooms worldwide, games have gained widespread recognition as valuable pedagogical tools. However, research often concentrates on specific game rules and elements and neglects the rest. For instance, overemphasizing competitive game elements excludes valuable insight that could be gained from other elements (e.g., collaborative games). This comparative study aimed to investigate how various game elements influence students' language acquisition across two distinct educational contexts, focusing on teachers' perspectives.

Group interviews were conducted with ISCED-2 EFL teachers in the Kurdistan Region and Hungary. The study explored: (1) How do various game elements influence students' language acquisition? (2) What characterizes a learning environment that uses collaborative language games? (3) What challenges do teachers face when implementing language games, and (4) what support do they find most helpful?

The results indicate that in both contexts, the collaborative game element greatly impacts students' language learning and is perceived as a significant contribution to language acquisition. Both groups identified time management, lack of materials, and game selection as challenges. They also acknowledged the need for school-provided materials and support. This study highlights underexplored contexts and the need to emphasize collaboration over competition, offering insights for Kurdish and Hungarian educators.

1. Introduction

Language games are entertaining activities that focus on competition, collaboration, and performance goals to promote language practice [1]. As a useful educational tool, it offers a variety of benefits to create a positive and productive learning habitat, such as enhancing interaction, language proficiency, motivation, and gaining 21st-century skills [2]. In particular, cooperative learning builds on social interaction, where students negotiate, communicate, and share their knowledge with peers [3]. When gameplay is intentionally structured to support collaboration, it not only engages participants but also promotes collective knowledge construction and shared understanding ([4]; [5]).

This research is grounded in Social, Cognitive Constructivism and Situated Learning Theory, which emphasizes that students construct the knowledge gained and give meaning through real experience, social interaction, exploration, and experimentation [6]. With the social constructivism theory, a core theory for foreign language learning is the zone of proximal development (ZPD) theory [7]. The ZPD outlines the capacity and development of a learner to achieve on his/ her own or while collaborating with a more competent individual [7]. Instead of considering learning to take place through the acquisition of abstract concepts, Situated Learning Theory stresses that it is the co-construction of knowledge through active engagement in authentic practices [8]. Drawing on Vygotsky's [7], Piaget's [6], and Lave and Wenger's [8] theories collectively offers a rich theoretical foundation for understanding how collaborative game components facilitate language learning through socially mediated, context-rich learning experiences.

A growing body of international research studies has been conducted on language games in EFL classrooms ([9]; [1]; [10]). However, these studies often present a geographically limited picture, failing to capture the full scope of EFL settings. Kurdistan Region of Iraq (KRI), in EFL settings, has received little research attention concerning language game efficacy. This lack of investigation positions KRI as a lesser-researched region, hindering the development of effective language teaching methodologies or tools tailored to its specific students' needs. Several contexts that are often overlooked, like culture, education systems, legislation, and resources, can influence the utilization of language games and their effectiveness in facilitating the learning process of students. This prevents the universal application of global research trends to all educational systems or school contexts [11].

Conversely, Hungary is a more pedagogically limited but better-resourced setting. While there have been some changes in education and access to ICT tools, these innovations hardly go deeper than surface-level technological application, i.e., smartboard usage, without significant pedagogical change [12]. Additionally, a new law has recently been introduced that significantly restricts the use of ICT devices by students in class, for example, tablets and smartphones [13]. The used national curriculum is outdated, and interactive methods such as gamification are largely limited to higher educational environments [14]. Teachers indicate a lack of time, training, and institutional infrastructure as reasons why innovative practice does not take hold in secondary schools [14], which might affect the implementation of language games.

Despite their differences, both the KRI and Hungary have, in recent decades, shifted English education objectives toward communicative competence from grammar-translation ([15]; [16]; [17]; [18]; [19]; [20]; [21]). However, they face various types of obstacles. Challenges to implementing language games at the KRI schools include a lack of resources, large class size, insufficient digital infrastructure, and insufficient teacher training. Whereas Hungary represents an environment with technical promise, yet pedagogical transformation is limited. Comparing these two contexts enables a deeper analysis of how resource deficiencies or institutional rigidity affect game approach integration.

This comparative study achieves several purposes and benefits [22]. First, it illustrates how contextual and demographic factors influence teacher attitudes and the pragmatic implementation of language game elements. Second, it addresses a gap in research focusing on language games in different educational systems. Third, it expands the debate outside mainstream English-dominant or resource-rich European settings by looking at two understudied yet insightful examples.

In addition, linguistic availability of research is an additional consideration for this comparison. There is scant research about language games availability in KRI. In contrast, research conducted in Hungary often utilizes local languages for publication. As Povolná [23] indicates, this dominance of the Hungarian language in academic publications typically creates a barrier to accessibility for a larger international audience seeking more information on language game usage. Concerning language games in Hungary, these were the only publications written in English ([19]; [24]; [25]; [26]). By incorporating both contexts into an English-language study, this disparity is reduced, and opinions and knowledge that may otherwise be underrepresented are given a voice.

Moreover, current research often prioritizes competition and feedback as core game elements ([27]; [28]) and neglects the significant revelations other game elements offer, such as collaboration [29]. As a result, this research seeks to fill two significant gaps: (1) underrepresentation in current EFL research regarding collaborative elements of gameplay, and (2) absence of comparative, cross-context examination into how various educational settings mediate these practices.

To address these limitations, this study proposes a juxtaposed and comparative analysis of language games in EFL classrooms across KRI and Hungarian contexts, aiming to explore how various game elements influence student language acquisition, particularly from the perspective of experienced EFL teachers. The present research considers the teacher perspective, its methodological framework, rather than examining students' outcomes directly; it focuses on teacher beliefs, instructional decisions, and contextual factors determining how these game-based instructional strategies are implemented in language studies. Although other factors like competition, individual and group tasks might be mentioned in order to provide context, the central focus of this research still lies on how collaborative gameplay affects language learning from the perspective of experienced EFL instructors. This study puts forth the following research questions:

1. How do different game elements (competition vs. collaboration, individual vs. group tasks, and feedback) influence students' language acquisition, according to teachers' experiences?
2. What characterizes a learning environment that uses collaborative language games for language acquisition?
3. What challenges do teachers face when integrating digital and non-digital language games into their classrooms, and how do these challenges impact the effectiveness of game-based learning?
4. What support or resources do teachers perceive as most helpful for the successful integration of language games into their EFL instruction (considering technical limitations, professional development, and other factors)?

This study, while utilizing a cross-contextual research design, emphasizes that the cross-national comparison between Hungary and the KRI is primarily based on teaching conditions and infrastructural support rather than established teaching traditions rooted in sociocultural or ideological factors.

1.2 Background
1.2.1 Game-based Learning

Games offer an opportunity to learn through discovery, action, and reflection, in such a way that captures one's curiosity and helps them enjoy the learning process ([30]; [31]). Language games expand the scope of language learning beyond the typical emphasis on skill development. They address anxiety, bad attitudes, lack of motivation, and self-confidence, all psychological obstacles that can impede learning ([30]; [32]; [33]).

Saidgul and Mohammed [34] found that games better engage and motivate students, fostering enthusiasm for vocabulary acquisition. Demirbilek, Talan, and Alzouebi [2] further state that games offer a student-centered approach that encourages active learning and collaboration. Studies have shown that student IQ is strengthened through language games, by providing opportunities for repetition, tailoring the learning environment to individual needs, and inspiring students to reflect on what they learned [35].

Agreement in the literature suggests that these games in the classroom can be valuable tools for motivating students and improving their language acquisition. However, what are teachers' perspectives on using language games? For games to be integrated into education, their approval is needed, since they are "true change agents" in implementing teaching methodologies within schools ([36, p. 21]; [37]; [38]; [39]; [40]). The views of teachers hold significant value as they are responsible for deciding whether to incorporate games into their teaching methods and for assessing and choosing the appropriate games for educational purposes. Gaining insight into what they consider the advantages of using games for educational purposes can help teachers better understand why game-based learning should be incorporated into their lessons [41]. Numerous studies have explored teacher perceptions of implementing language games, and their findings indicate that game-based learning enhances student motivation, as well as their problem-solving, language acquisition, and cognitive skills ([42]; [2]; [43]). Therefore, the question of what obstacles and needs influence the actual application of games in EFL classes is particularly important in this study.

1.2.3 Language Acquisition

According to Krashen [44], language acquisition is an unconscious process that requires the learner to have the opportunity and environment to acquire it. An experimental study conducted in Iran on elementary students, by Naderi and Moafian [45], examined the impact of digital and non-digital games on children's vocabulary acquisition and retention. They indicated that both types of language games can be beneficial, particularly non-digital ones, and asserted that "the advent of technology should not make us ignore the benefits of non-digital activities and plays in language education environments" (p. 1). Similarly, Ismail and Mohammad [46] reported better vocabulary gains after a gaming intervention for Malaysian students. For, learners in a positive mood are more likely to be positively motivated, become more confident, and be more willing to face difficulties and challenges in language learning. As Santrock [47] indicates, students are more likely to acquire and use language when they feel a sense of comfort and safety. Furthermore, a study conducted in Indonesia by Winaldo and Oktaviani [48] on the effect of video games on language acquisition found that there is a strong relationship between the two. It was concluded that video games used visual cues for the names of objects, which helped participants learn the language more easily than the traditional way.

1.2.4 Elements of the Game

Game elements can be defined as the components and rules that make up the game [49]. They might include mechanics such as points, badges, or levels, as well as cooperation, achievement, or competition, which influence the outcome of the gaming experience. Several studies ([50]; [51]; [52]) have acknowledged game elements as a crucial aspect of teaching and learning. As highlighted by Yaccob et al. [53], the game elements positively augment motivation, engagement, and competition, thereby enabling meaningful language learning experiences.

Numerous studies have shown that incorporating gamification with a variety of these elements creates attractive gamification experiences that promote social interaction among students ([54]; [52]; [55]; [56]). However, these studies often concentrate on the overall experience rather than directly examining the specific building blocks of games [57]. Depending on their unique

characteristics and learning needs, students may or may not be willing to play specific game elements. It is worth noting, if the one-size-fits-all approach in gamified classes fails to account for individual differences among students, it can demotivate them or exacerbate already existing demotivation [54]. This lack of focus, as Dicheva et al. [58] indicate, is an absence of a universally agreed-upon classification of game elements. This hinders us from fully understanding how impactful applying each game component can be [59]. As Hong, Saab, and Admiraal [54] indicate, this lack of clear categorization might have prevented teachers from properly utilizing language games in their classes. This raises a crucial question: What exactly are the elements of a game?

Several frameworks for categorizing parts of a game appeared in the field of educational language in previous research studies, bibliometric, and systematic reviews (see Appendix 1). Therefore, looking for other game elements that can better the learning experience for more students would be beneficial [28]. For example, collaboration-oriented game elements, which can be defined as involving groups of students to work together to solve a problem, complete a task, or create a product, can encourage a sense of community and cooperation [60]. As Wang and Huang indicated, team learning processes that emphasize communication and collaborative problem-solving emerge from games that utilize collaboration elements [3]. In addition, Salma [61] indicates that cooperative learning approaches trigger critical thinking and improve the metacognition of students. Dindar, Ren, and Järvenoja [62] found that competition and collaboration segments produced similar results in terms of effort, learning outcomes, and motivation. However, the collaboration game element in particular showed higher social relatedness among learners. Similarly, Yang and Feng [63] stated that teamwork-oriented games helped students learn significantly.

Furthermore, games that involve negotiation, cooperative planning, and collective strategizing may recreate real-life collaboration, which can also improve the learning process [5]. Research on collaborative play also emphasizes the importance of design elements in order to facilitate collaborative learning and meaningful interaction. For instance, Wang and Huang conducted a comprehensive analysis of 31 quantitative research to examine how educational games facilitate collaborative learning. Based on their analysis, 20 mechanics were identified as facilitating collaborative learning across six domains: (1) Space, (2) Objects, attributes, and states, (3) Actions, (4) Rules and objectives, (5) Skills, and (6) Chance. According to their findings, collaborative learning is driven by cognitive conflict, sharing duties, and resources [3].

1.2.5 Challenges in Implementing Language Games and Game Elements

Every technique a teacher employs in the classroom may encounter some challenges. In the case of implementing language game elements in language classes, teachers might face various obstacles, especially while preparing student-centered activities that cater to individual differences and needs. Hannafin and Land [64] and Domínguez et al. [65] stated that the preparation of an effective lesson plan that incorporates language games and game elements is challenging. Moreover, devoting enough time to the game and not having enough technology and materials can pose significant challenges [2]. Furthermore, teachers often lack the necessary game skills and technical knowledge to be able to provide effective instruction to students [66]. These are paramount for language games to be used successfully.

2. Methods and Materials

2.1 Research Sample

This study serves as a part of a larger research project and as a publishable contribution to the field. It utilizes group interviews that include 16 questions adopted from Bin-Had [67] and Demirbilek, Talan, and Alzouebi [2] (see Appendix 4) to gather qualitative data on what EFL

teachers think about the impact of game elements on language acquisition. This method allows for in-depth discussions and exploration of participants' shared experiences. The latter were selected based on purposive sampling, a technique for choosing a sample based on specific considerations [68]. In the case of this research, secondary-level teachers were selected who teach in public schools. They were experienced, basic education (secondary level), EFL teachers from Hungary (the Northern Great Plain region), and KRI. Due to non-probability sampling, the results cannot be generalized. Nevertheless, the research provides valuable insight into a research area where large-scale, probability-based research is extremely difficult, partly due to the accessibility of the base population data and partly due to respondents' willingness and ability to respond (e.g., overcrowded working hours). By including teachers from different cultural and educational contexts, the research was able to capture a wider range of experiences and perspectives on EFL instruction.

2.2 Demographic Overview

This study sought to establish the demographic characteristics of the respondents. This included gender, age, years of experience, and country. Appendix 2 presents the demographic information of the interviewed teachers. The respondents were teachers who teach English language subjects in basic education (secondary schools) levels 7 to 9, according to the International Standard Classification of Education (ISCED), which corresponds to level ISCED-2. Their students were between the ages of 11 and 15. Four teachers were from the KRI, and the other four were from Hungary's Northern Great Plain region. Most of the teachers interviewed were female, with the exception of two males. In terms of teaching experience, most of the teachers have a minimum of 3 years and a maximum of 24 years in the field of teaching.

Appendix 3 reveals that most teachers from both countries use language games to improve language acquisition. However, the frequency of language game usage varied from one teacher to another. Some of them incorporated language games regularly, while others used them less frequently. Those teachers gained knowledge about the implementation of language games from a variety of sources, including online sources, professional training, and interaction with colleagues.

2.3 Research Tools and Procedures

Two group interviews were conducted with a total sample of eight instructors. Each group consisted of four school teachers. The group interviews took place virtually via the Zoom meeting platform due to logistical concerns and travel expenses. Researchers should consider ethics throughout the data collection and analysis process [69]. Therefore, a consent form was sent to each participating interviewee prior to the interview. The consent form included information about the research's content, title, and purpose. It also obtained the participants' permission to record the interviews. By not revealing names, this study guaranteed participants' anonymity. Group interviews were chosen due to their time efficiency and potential to foster high levels of interaction between teachers. This interaction allows for a more productive exchange of the teacher's experience and knowledge ([70]; [71]). The group interview delved deeply into teachers' experiences and viewpoints on the use of language games and their impact on language acquisition. Interview data were transcribed and subjected to thematic analysis to explore and systematically organize the common patterns of meanings related to language games. These patterns of meanings were highlighted using a combination of deductive and inductive codes, following the six phases of thematic analysis defined by Braun and Clarke: (1) familiarization with the data, (2) generation of initial codes; (3) search for themes; (4) review of potential themes; (5) definition and naming of themes; (6) report production [72]. (1) As part of the first step, researchers read the transcribed material and listened to the audio files several times to be immersed in the data and to be intimately acquainted with its content [72]. (2) In the second step, initial deductive codes were agreed upon along the main themes based on the theoretical background. Researchers allowed inductive codes

to emerge, which included descriptive and interpretive ones. For example, the collaboration was released as the content of several important codes as described in Figure 1. (3) In the phase of "searching for themes," we identified themes and subthemes from codes that encapsulated common meaning and content - e.g., several codes clustered around collaboration. The importance and validity of collaboration as a theme were also confirmed by the phase of "review of potential themes." (5) After defining and naming the themes, (6) the researchers prepared the research report, from which they present four research questions in this current study ([72], [73]). The discussion section's structure was shaped by these themes, analyzed in relation to the research questions and existing literature. Steps 1-5 were facilitated by ATLAS.ti software. The analysis team consisted of three researchers. The coding and analysis process was carried out with continuous monitoring of each other, sharing notes, thoughts, and questions about what lies beneath the surface of the data. Since the researcher conducting the interviews also participated in the analysis team, the texts were known to her in their original context.
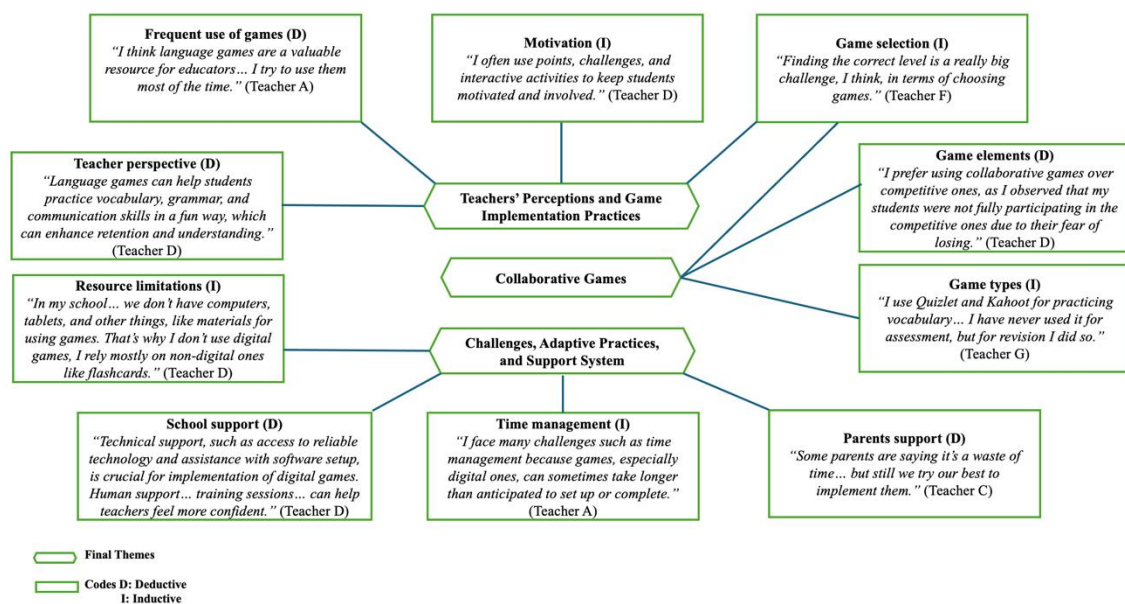
Figure 1. From Data to Themes: Sample Comments, Codes, and Resulting Themes

Thematic analysis is a widely accepted method in similar types of research, aiming to discover and describe not only common themes but also semantic and latent meaning-giving patterns ([73]; [72]). As indicated by Naeem et al. [74], thematic analysis uncovers new insights and aids in understanding the subject. Such a new insight was the prominent role that collaborative language games play in the views, beliefs, and classroom practices of the teachers surveyed. While there was only a single concentrated question about collaborative language games in the interview protocol, the analysis revealed that collaboration was a common theme among respondents. The research thus put particular emphasis on language game collaboration elements, it being of extraordinary significance to teachers. Moreover, it should be noted that the interview questions were framed to primarily probe educators' actual use of game-assisted practices, including both game-based and game-enabled tools. This meant that responses occasionally covered both digital gamification tools like Quizlet and Kahoot and non-digital language games such as board games and ball games. Both were evaluated in relation to the views and practices of educators regarding collaboration game elements, despite their conceptually distinct nature.

3. Results

The findings are organized according to the guiding research questions. For each question, several distinct themes surfaced inductively from the data, highlighting meaningful and recurring patterns in the participants' responses and perspectives.

3.1 Game Elements and Their Influence on Students' Language Acquisition (RQ1)

3.1.1 Teacher Perspective and Student Learning Outcomes

The findings of the study indicate that in both interview groups, the majority of the teachers' perspectives on the use of language games were positive. Teacher B. posited that the use of language games in teaching language is essential, asserting that "*games are beneficial to make complicated topics easier and make students more motivated. The students can interact with each other... they can communicate with each other and get fun at the same time. Language games make learning English interactive and effective by engaging students and reducing anxiety; it makes learning fun.*" Teacher F. agreed and highlighted that there should be a balance when using language games: "*I would say that they're an important part of today's teaching curricula. It's true that probably we shouldn't use them too much because of this generation. As I said before, they're totally tech-savvy. They love games a little too much sometimes. So there needs to be a balance, but they can really bring some life and some freshness and some color to maybe material that students have seen before.*"

The majority of teachers reported that language games significantly improved students' language learning. Students' engagement, involvement, and skills have also been enhanced. Teacher D. observed a confidence boost in her students, stating that "*when we incorporated role-playing games to practice conversational skills, students became more confident and fluent in speaking English. Overall, games have made learning more engaging and have helped my students progress in their English language skills.*" Teacher F. concurred, emphasizing that he "*definitely do see improvement with it. Again, it does depend a lot upon student motivation as it does with any other subject. But I have seen quite a lot of improvement with some of the slower students.*"

3.1.2 Motivation and Retention

Both groups of interviewees highlighted the motivational benefits of using language games for learning. Teacher D. emphasized the use of multiple game elements to keep her students engaged and motivated, saying that "*by setting up challenges, offering rewards like badges, and creating a competitive yet supportive atmosphere, my students can have fun while improving their English skills.*"

The retention of information is another theme that was raised in the interviews, as Teacher D. specifically mentioned that students often imitate the language used in games, signifying that the context provided by games can increase retention. She said, "*I've noticed that games have had a positive impact on my students' learning outcomes. For example, when we played vocabulary memory games, my students not only had fun but also showed significant improvement in remembering and using new words.*"

3.1.3 Game Elements and Types

Depending on the objective of their lessons, the interviewed teachers employ various game elements and types in their classes. These elements include points, rewards, challenges, competition, feedback, and collaboration. Most of their tasks are performed in groups rather than individually. These elements foster a sense of achievement, progression, and active engagement. For instance, Teacher G. uses language games as revision tools; she stated, "I *use Quizlet and Kahoot, for example, for practicing vocabulary. And it works for like revising vocabulary too when before a test, for example, I have never used it for assessment, but well, for revision I did so to revise vocabulary that they were gonna write the test afterwards.*"

Additionally, Teacher G. uses non-digital language games. She mentioned one of her commonly implemented games that she plays with her students: "*I've got a very small bowl, for example, in my basket that I take into class with me. So, whenever I try to do something interactive, I just throw the bowl, and they can, like, for example, practicing three forms of irregular verbs. the past tense of the verbs. I throw the ball. But that's, that's kind of a very easy game. And it's not online; it's just they enjoy it.*" Teacher H. uses language games for the same purpose as Teacher G., for revision and practice; she said, "*when I feel that they are a bit tired, then I use it. But not for teaching, actually only for practice and revision.*" Teacher C., on the other hand, mentioned, "*I used so many games such as physical play, including dancing or ball games, and also social play, they play with each other, and we make it grow and students can learn how to take turns, and also draw. We have musical sessions, rules, and puzzles. I do it on paper and make it into groups. I also use competitions; at the end, the group will be the winner, and they'll be awarded.*"

Most of the interviewed teachers from both contexts highlighted the interactive nature of language games, which can be a powerful motivator for students. They also spotlighted the effective use of game elements and types in language teaching. Teacher D. stated that "*students enjoy interactive language games the most. These games allow them to actively participate, engage with the material, and practice their English skills in a hands-on way.*" She further mentioned that she uses "*points, challenges, and interactive activities to keep students motivated and involved.*" Teacher B. agrees with Teacher D. and uses the same game elements as hers in language classes by mentioning that "*points, badges, challenges, competitive, collaborative are common game elements used in my class.*" While Teacher B. highlighted that the lack of availability of digital devices limits her potential, she creatively uses traditional game elements like spelling bees and flashcards to enhance vocabulary learning.

3.2 Collaborative Language Games (RQ2)

A significant point was raised by one of the Kurdish groups about game elements, Teacher C. mentioned that "*competitive language games can be interesting for students as they compete with each other to win or gain a reward*" emphasizing the use of competitive game elements in her classes, mentioning that competitive games make her students more engaged and motivated. However, other teachers in the same group argued that collaborative language games are more effective and beneficial for students, as some students may be intimidated by the emphasis on winning and earning points. Teacher D. stated, "*I prefer using collaborative games over competitive ones, as I observed that my students were not fully participating in the competitive ones due to their fear of losing.*" Teacher A. also acknowledged the importance of collaborative elements by mentioning that "*In my class, I blend various game elements to foster engagement and learning among students, for example, challenges and collaborative projects, where students will work together to achieve common goals such as creating a presentation, collaboration raises teamwork communication.*"

3.3 Challenges Teachers Face when Utilizing Digital and Non-Digital Language Games (RQ3)
3.3.1 Time Management

Lack of time or time management is a constant challenge for English teachers, which includes two points: time spent with the students and time to research, prepare, and utilize language games. Teacher A. explained her time with students: "*when I use games, I face many challenges such as time management because games, especially digital ones can sometimes take longer time than anticipated to set up or complete.*" Teacher D. confirmed and said, "*when managing time during applying games, I set clear expectations and time limits to ensure the game remains educational and engaging without extending beyond the planned lesson duration. But sometimes that doesn't go as planned, in my case, I have some special needs students. Sometimes they make it a bit*

challenging to implement language games and they get distracted by games." Teacher E., on the other hand, raised another point about the game preparation time "*well, the problem with me is not the time digital, but basically that I, unfortunately, I don't have the time to start to initiate these games… So, whenever I give them some games, it's rather a short one just to do topical practice, the vocabulary or, or we use simple linguistic games to build up sentences, not the digital ones.*"

For the question of overcoming challenges, one of the solutions to managing time while using language games was mentioned by Teacher H. "*I give it out for students to make games because I don't always have time to make a Kahoot for them. I assigned students to make quizzes themselves for the topic because they enjoyed it very much. And I usually use Kahoot or quizzes for revision.*" Moreover, the large number of students in one class sometimes makes implementing language games unfeasible, as it takes more time to manage the classroom. Teacher B. argued that a large number of students in one class is one of the barriers to implementing language games properly, following the time allocated in the lesson plan. For reference, Teacher B. has thirty students in one class. To overcome this challenge, Teacher B. said, "*I sometimes divide the class into groups, where students work on certain tasks.*"

3.3.2 Lack of Materials and Infrastructure

Both groups from the Kurdistan region and Hungary cited the general shortage of resources, from simple materials to computers, as another barrier they faced. Teacher C. said, "*the scarcity of materials and the shortage of awareness of the use of language games and their benefits can be a challenge.*" Teacher D. further exemplified the point and said, "*the school that I teach at, the building itself is perfect, but we don't have computers, tablets, and other things, like materials for using games. That's why I don't use digital games; I rely mostly on non-digital ones like flash cards.*" However, some teachers don't find this a significant issue. Teacher A, for example, argues that she doesn't find this a challenge because she regularly purchases and brings materials from outside the school to implement language games. Teacher G. also said, "*some of the board games are available online for language teaching. So, we can just print out the board itself, and if we have some dice, there is even online dice, so we can use that.*"

It is worth mentioning that in KRI, some of the schools have two shifted schools in one building. as Teacher C. explained, "*our buildings have two schools in the same building and we are like guests, taking things home and bringing them back to school, so we don't have any materials, laptop, data shows, or computers in classes.*" However, this did not affect the teacher's implementation of language games.

3.3.3 Game Selection

The effectiveness of language learning determines the choice of game for the English class. One of the challenges facing teachers is choosing a game that most effectively meets learning objectives and students' needs. Teacher F. mentioned that "*finding the correct level is a really big challenge, I think, or in terms of choosing games. But I think that's the same with the material itself*". He adds to it "*the differences in levels within a group where perhaps for one particular group of students whose level is not as good, they would've difficulty understanding the instructions or, maybe they wouldn't recognize certain words. …. Sometimes what I have done … is find a game that I know is above everyone's level and try to see how many of them can actually do it. To see 'cause then that'll let me see how close others are to getting to that better level. And it'll show me where maybe I can make it a bit easier for them to get up to that level if they haven't made it.*"

3.4 Support or Resources Teachers Perceive as Most Helpful for Successfully Integrating Language Games (RQ4)

When asked about potential resources or support for successfully integrating language games, the responses from both interview groups were similar: they could benefit from increased support within the school environment. Most of the teachers came up with the same terms, such as, human support in the form of training, workshops, or an assistant teacher. A couple of teachers said they have special-needs students in their class, and sometimes they get easily distracted and disturb the rest of the class; therefore, as Teacher D. mentioned, human support, "*Training sessions on game-based learning can help teachers feel more confident in using these tools effectively.*" Technical support, such as access to reliable websites, tools, and software assistants, mentioned by Teacher C., "*we only have boards and desks in the classroom. We need data show and projectors, computers, tablets, cards, and posters to have an effective teaching process.*" Teacher F. mentioned some simple materials that the school can provide, "*it might be a viable option for a school to provide maybe different kinds of I don't know, workbooks that have games in them or things, simple things like maybe I'm not thinking of digital games here. I'm thinking non-digital, but things like dices, another different type of simple tools like that you can use to play in games, or those story cubes, some objects on them.*"

The lack of materials must not be prolonged, as mentioned by some of the interviewees. Teacher H. concurred, stating that "*a membership for some of the online games like quizzes would be good. We could together choose one platform and then we could have, a membership because there are many extra types of tasks that we could use and would be useful, more useful than a multiple-choice type of question.*" Teacher G. added that the teachers can get help and benefit from other teachers too "*a teacher has to be very creative to be able to use online games. And I think teachers can improve their creativity if they want. Like, for example, they can take part in webinars or can visit other teachers' classes to learn from them.*"

Regarding parental support, all teachers agreed that the parents and school boards are glad to have games implemented in the classes, except for Teacher C. from Kurdistan region, who said some parents think that language games are a waste of time, "*some parents are saying it's a waste of time. Especially when we use this method, our trainers, make it as a video, and post in social media or parents' group chat, when they see it, they say it's a waste of time.*" Teacher D., on the other hand, said "*my case is different from Teacher C.; parents appreciate seeing their children excited about learning and making progress in their language skills. And the school board acknowledges the benefits of using games to enhance education and support student learning outcomes.*"

4. Discussion

4.1 Teachers' Perceptions and Game Implementation Practices

What makes this study unique is its cross-contextual nature. While other studies have focused on game-based learning in single contexts, few have contrasted underrepresented contexts such as the KRI and Hungary to identify how local circumstances influence the implementation of collaborative game features. The findings of this study revealed that despite the distinctions in both contexts, cultures, age groups, teaching experiences, and education systems, teachers in both groups indicated a positive attitude toward the use of language games and game elements for the improvement of language acquisition (RQ1). Most of the teachers from both contexts claimed that utilizing language games and their game elements in English lessons assists students in acquiring language easily. This indicates that the utilization of language games can serve many educational purposes and improve students' willingness to communicate and acquire language [3]. The findings

of the study are similar to experimental research conducted by Liu et al. [10] on 60 intermediate students and six English language teachers in Iran, which supports the positive impact of games on students' attitudes toward English learning. The games simulate the intricacies of real life by providing realistic experiences in problem-solving scenarios that necessitate teamwork, joint decision-making, and shared accountability. These results support Situated Learning Theory [8] in that language learning is most effective when embedded in meaningful activity-based situations.

Moreover, the interviewed teachers use various game elements and types in their classes, depending on the objective and the aim of their lessons. Due to the lack of digital equipment, particularly in KRI, the majority of both groups reported using non-digital language game tools, such as flashcards, ball games, puzzle games, card games, role plays, board games, and spelling bees, rather than digital ones. Even in more resource-abundant environments like Hungary, teachers were in favor of the use of non-digital language games. Vasconcelos et al. [4] indicate that board game collaboration can establish settings that promote social learning by fostering conversation, learning from one another, problem-solving, and cooperation. The interview revealed the utilization of the following game elements: points and badges as rewards, challenges, competition, feedback, and collaboration. These elements, as indicated by the teachers, foster a sense of achievement, progression, and active engagement [51].

It is worth mentioning that the researcher posed an identical query about the types of game elements teachers frequently utilize in their classes to both interview groups (RQ2). However, the interviewee understood the question differently. In the Kurdish group, teachers immediately went into the theoretical part and mentioned the game elements that the students preferred. In contrast, the teachers in the Hungarian group did not explicitly address the students' preferred game elements. Rather, they focused on the type of games used within their classes, like Kahoot, games involving balls, and puzzles. Through their game type selection, the researcher understood which game element was being referred to. For instance, ball throwing among students could mean a collaborative game. The Hungarian teachers' prompt responses to the practical aspects of the game may stem from their familiarity with the theoretical aspects of game implementation and their frequent use and type of language games. Unlike most of the current literature, which tends to be focused on student achievement ([4]; [5]), this work places the teacher's voice front and center, examining how his/her instructional choices and contextual circumstances shape the implementation of collaborative game mechanics within the learning environment. However, due to the use of non-probability sampling, the findings regarding the effectiveness of collaborative game elements cannot be generalized.

4.2 Collaborative Games

The Kurdish teacher's group sparked an important debate about the use of collaborative and competitive language game elements in language classes (RQ2). One of the teachers highlighted the advantages of competitive game elements, emphasizing how competing, losing, and winning help students to be better engaged in the learning process. The other teachers in the same group, however, argued that competitive games occasionally induced shyness among their students, preventing them from fully engaging in the learning process due to their fear of losing. Thus, they favored the use of collaborative game elements. In line with this, Hofstede, de Caluwé, and Peters [75] assert that the efficacy of simulation games lies not in their content but in the reflective and collaborative processes they generate. With a focus on teamwork and shared responsibility, collaborative games provide a real learning experience that promotes in-depth participation, communication, and cooperation. The study illustrated that learners were more actively engaged in language practice when working together through shared games, often turning to colleagues to clarify meaning or disambiguate usage. This aligns well with Vygotsky's concept of the ZPD [7]

in which learners are assisted through collaboration and scaffolding to perform something one step beyond what they can alone.

Collaborative game elements are a crucial aspect of students' lives in the education field, as it teaches them how to work together on specific tasks instead of focusing on winning or losing. The answers of the interview groups align with the Yang and Feng [63] studies, which argue that the incorporation of collaborative games in the classroom can improve students' communication, social skills, teamwork, and learning outcomes. The results are consistent with Vygotsky's [7] and Piaget's [6] theories, positing that human knowledge develops and learning takes place through real experiences and collaborative social interaction.

4.3 Challenges, Adaptive Practices, and Support System

The findings of the study revealed several challenges that the teacher faced while utilizing language games in their classes; the most common ones being time management, material scarcity, and game selection (RQ3). One of the primary concerns of the interviewed teachers was time management. The teacher expressed concerns about not having enough time to effectively employ language games with all students in the class, as well as insufficient time to research and prepare these games. English language teachers in the KRI and Hungary allocate nearly the same amount of time for each lesson, leading them to question the practicality of games. However, the class size varies depending on the context; in the Kurdistan region, a class typically has 30 students, sometimes even more. In the case of Hungary, the maximum number is 25 to 28. With large class sizes, it can be difficult to provide each student with individual access to language game tools. Large class sizes can also pose challenges for teachers in meeting the diverse needs of their students [76]. Teachers endure overwhelming pressure due to the large number of students and the limited time they spend with each student. However, since one of the interview questions focused on ways to overcome challenges, some teachers suggested involving the students in the game preparation process. This approach allows students to take charge of their own learning while still being helpful. Another solution is that teachers could divide the class into several groups or use large group games.

The second concern was the scarcity of game materials and infrastructure, which might hamper the proper implementation of these games. Most instructed language learning happens in increasingly diverse classroom settings, which are characterized by complex and rough conditions. While there is a growing recognition of the importance of digital tools in education [63]. The teachers who were interviewed asserted a deficiency in digital equipment, particularly in the Kurdistan region. Some of the interviewed teachers managed to overcome the scarcity of material obstacles; instead of simply drawing on commercially prepared materials, they stepped in and created themselves or modified existing games to suit the settings in which they teach. This type of hands-on solution captures a type of pedagogic innovation too often neglected in the literature, especially in settings lacking proper resources.

The Hungarian interview group proposed another solution: teachers could utilize free online language games to print and use in class, and they could seek peer support for fresh ideas or help in implementing specific games. As indicated by Barnová et al. [77], peer support groups could provide teachers with additional tools for coping with adversity and stressors in the learning environment. These solutions from the interviewed teachers demonstrate their resilience, seriousness, and creativity in the learning process. Still, some serious issues remain to be addressed. The lack of infrastructure in the Kurdistan region was one of the highlighted points teachers sought to touch on with their solutions, as some of their schools are double-shifted. The double-shift term is defined as dividing the teaching day into two shifts, where one shift starts in the morning and the other one starts in the evening, using the same school building [78]. This affects the learning process because teachers cannot leave their books and game materials at the school; they must always take them back home, as previously mentioned by one of the teachers.

The third issue that teachers encountered was game selection, which they perceived as a barrier. The selection of games should be based on individual differences, students' preferences, and needs. Oliveira and Bittencourt [79] assert that we should consider the individual differences among students when selecting game elements, as certain parts may motivate some students while demotivating others due to their diverse needs and preferences. While numerous studies have explored the challenges of implementing language games, the selection of games has received little attention from researchers.

Teachers perceived human support, technical support, parental support, and school board support as helpful in integrating language games into their lessons (RQ4). Teachers can receive human support in the form of training, workshops, webinars, or an assistant teacher. The teachers in both contexts asserted that they require professional training courses and workshops to effectively incorporate language games into their lessons. This result is further supported by other scholars stating that comprehensive teacher training and ongoing professional development are essential components in equipping teachers with the necessary skills, knowledge, and confidence to effectively put game-based learning strategies into practice ([80]; [81]).

Although this study was positioned as a comparative investigation between Hungary and the KRI, it is essential to clarify that the key differences found were predominantly contextual rather than sociocultural. Educators in both regions shared common pedagogical values and exhibited similar positive views toward teaching through collaborative language games. The practice of these games depended significantly on local support, including infrastructure, class sizes, teacher practices, and institutional support. These findings reflect the study's aim to examine how various game elements, specifically collaborative elements, influence students' language acquisition based on gameplay in both underrepresented classroom contexts. Despite the challenges encountered by teachers, they remained committed to the use of language game elements. If the relevant bodies of education policy and school boards of both contexts prioritize these needs, it could steer the education system into a positive, barrier-free realm for learning that facilitates language acquisition.

5. Conclusions

To conclude, this comparative study contributes to the understanding of game elements in general, specifically collaborative game elements, and their impact on student language acquisition. Despite the fact that collaboration was not the main objective of the initial research design, it emerged as a prominent topic in game-based language instruction across the teacher responses.

The findings indicate that teachers view the language game favorably, as students can receive tailored learning paths and real-time feedback using game elements in the learning process. The interviewed teachers reveal the positive impact of these games on students' language acquisition, retention, engagement, involvement, and motivation. Nevertheless, the most effective game element is cooperation. The interviewees from both contexts highlighted the benefits of collaborative language games in enhancing students' language acquisition and boosting students' self-assurance.

We consider these results to be of particular relevance since collaborative games are less frequently discussed, even though for a large proportion of students, they can be more useful than competitive games, which involve psychological barriers and experiences of failure, and can open up new ways of learning a language.

The investigation into the challenges revealed that time management, insufficient materials, and game selection were the primary obstacles to the effective implementation of language games. Despite the scarcity of materials, the teacher maintains a favorable impression and desire to utilize language games in the classroom. The necessary support from the school board was also addressed,

with most teachers underscoring the requirement for materials and a reduction in class size. It is recommended and considered essential to implement training courses and workshops focused on game placement, game selection, and managing large groups of students to foster a positive learning environment.

The results of this study further offer transferable recommendations for EFL teachers and researchers, potentially leading to improved EFL teaching and learning practices. These findings reinforce social and cognitive constructivism theories, such as ZPD and Situated Learning Theory, as well, demonstrating how collaborative game elements encourage learning through interaction, shared problem-solving, and peer collaboration in EFL contexts.

One limitation of the study is that, despite this study's acknowledgment of conceptual distinctions between gamification, game-based learning, and serious games, its aim here was not to define forms of games but to investigate perceptions and implementations among EFL teachers of collaborative elements, regardless of what form they take. In the case of further study, future research directions might explore the long-term impact of collaborative game-based learning on student language proficiency.

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Conflicts of interest

The authors declare no conflict of interest.

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Appendices

Appendix 1

Characteristics of Language Game Elements according to selected authors.

Characteristics of Game Elements			
Researcher	Game elements (No.)	The main dimension(s)	Game elements

1	Reeves & Read [82]	10	"4-virtuals" (people, money, teams, and leaders)	Self-representation with avatars, 3D environments, narrative context, feedback, reputation/rank/levels, marketplaces/economies, rule-based competition, teams, configurable communication systems, and time pressure
2	Werbach & Hunter [83]	3	Dynamics, mechanics and components	Dynamics (constraints, emotions, narrative, progression, relationships), mechanics (challenges, competition, cooperation, feedback, rewards), and components (achievements, avatars, badges, levels, points, teams)
3	Simões, Redondo, & Vilas [84]	7	Game mechanics, game dynamics	Competition, levels, rankings, results, rewards, scores, and social interaction
4	Aktaş & Orçun [50]	4	Game design elements	Mechanics, narrative, technology, and aesthetics
5	Bouchrika, et al. [85]	3	Engagement elements	Scores, badges and leader boards
6	Alexiou & Schippers [86]	3	Game system, narrative, and aesthetics	Game system (rules, mechanics), narrative (theme, story, characters), and aesthetics (audiovisual elements, fidelity, aesthetic choices).
7	Aldemir et al. [87]	9	Challenges, narrative, leader board, rewards, badges, teams, win-state, points and constraints	Challenges: (emotion-arousal, distraction, engagement, team skills, competitive collaboration, collective intelligence, feedback, self-assessment, reinforcement, challenge type, timing, frequency, repetitiveness), Narrative: (relevance, communication, character), Leaderboard: (participation, competition, reputation, teams), Rewards: (participation, privilege, narrated, tangible, continuous and systematic), Badges: (fun, confidence-booster, feedback, self-assessment, continuous and systematic), Teams: (community building, relationship and interaction between the teammates), Win-state, Points and Constraints: (distributed points, fairness, clarity, visibility and accessibility, self-assessment)
8	Kapp [88]	10	Engagement and interaction elements	Conflict, competition, cooperation, time, reward structure (badges, points, and rewards), leaderboards, feedback, levels, storytelling, and aesthetics

9	Warmelink [89]	10	Systematic literature review (Engagement and interaction elements)	Points, badges, leaderboards, performance graphs, virtual gifts/items, levels and missions, social games and teamwork, increasing task difficulty/challenges, avatars, and meaningful stories
10	Hong, Saab, & Admiraal [54]	23	Systematic literature review (Performance, personal, social, ecological, and fictional elements)	Reward, progress, feedback, punishment, voting, challenge, customization, goal, free to fail, novelty, sensation, competition, socialization, cooperation, reputation, access, choice, time pressure, chance, trading, rarity, narrative, storytelling
11	Zhang & Hasim [52]	16	Systematic literature review (without categories)	Feedback, quiz, leaderboard, progress bar, challenge, time limit, avatar, QR code, points, digital badges, reward, storytelling, videos, competition, role playing, collaboration

Note. The authors' own collection

Appendix 2
Demographic Information of Teachers

Teachers' Demographic Information				
Teacher	**Gender**	**Age**	**Experience (years)**	**Country**
Teacher A	Female	29	7	Kurdistan Region of Iraq
Teacher B	Female	28	6	Kurdistan Region of Iraq
Teacher C	Female	35	10	Kurdistan Region of Iraq
Teacher D	Female	35	11	Kurdistan Region of Iraq
Teacher E	Male	48	24	Hungary
Teacher F	Male	34	8	Hungary
Teacher G	Female	44	18	Hungary
Teacher H	Female	27	3	Hungary

Note. The authors' own collection

Appendix 3
The Implementation of Language Games

Language games implementation				
Teacher's Code	Use of digital games	Use of non-digital games	Frequency of using games	From where learned about language games
Teacher A	Yes	Yes	Frequently (Once a week)	From colleagues/ Browsing online resources
Teacher B	Yes	Yes	Occasionally (2-3 times a month)	Training workshops
Teacher C	No	Yes	Always	Training workshops
Teacher D	No	Yes	Always	Training workshops/ Browsing online resources
Teacher E	No	Yes	Rarely uses games	Training workshops
Teacher F	Yes	Yes	Frequently	Training workshops/ webinars during Covid
Teacher G	Yes	Yes	Frequently (Once a week)	Training workshops/ webinars during Covid
Teacher H	Yes	Yes	Occasionally (2-3 times a month)	Browsing online resources

Note. The authors' own collection

Appendix 4

Interview Questions

Research topic: Teacher Perspective of Collaborative Game Elements on Language Acquisition in EFL Classes

Section A: Demographics
1. Briefly tell us about yourself and your experience in teaching the English language. (for example, for how long you have been teaching, your highest educational qualification).
2. What comes to your mind first when you hear the term (Language games)?

Section B: Teachers' Perception
3. What is your perspective on the use of language games in English lessons?
4. In your experience as an educator, how have you learned about implementing language games? (For instance, through professional development programs, sharing ideas with colleagues, searching online resources)
5. In your opinion, do you think English language teachers should use games? Why or why not?

Section C: Integration and Implementation:
6. What are some common game elements you have used in your classes? For instance (e.g., points, badges, challenges, competitive, interactive, etc)?
7. How frequently do you use language games in your teaching? And Why?
8. From your teaching experience, what types of language game elements do students enjoy the most?
9. How have games affected your students' learning outcomes? Can you provide examples?

10. When do you use language games in your classroom (do you use them at the beginning of the lesson to introduce new learning materials, as practice skills, or at the end as an assessment of students' learning?
11. How do students, parents, and the school board generally react to your use of language games in the classroom?
12. Are there specific cultural or societal considerations you take into account when selecting or adapting language games for students?

Section D: Challenges
13. What challenges might you face when you use digital/ non-digital games in your classroom?
14. What do you do to overcome these challenges?

Section E: Recommendations
15. What kind of support or resources would be helpful for teachers who want to integrate language games into their teaching? (technical support, human support, tools from schools, human capacities, etc)
16. Is there anything else you would like to share about your experiences with game design elements in your EFL classes?