Language Learner Identity and Games and Gamification in the Language Learning Classroom: Observations from the Japanese Context

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Abstract Research into game-based language learning and gamification is a field that represents a new direction in second language acquisition. However, practical research regarding empirical observation of how this method can affect language learner identity and investment is still lacking. In this chapter, we show three different contexts in which games and gamification are used in the classroom to support and scaffold English lessons. A variety of gamification and game-based pedagogical interventions were used with classes at the high school and university levels. The interventions included pre- and post-game activities, while the activities themselves involved gamified online quizzes such as *Kahoot!*, and mobile games such as *Spaceteam ESL* and *Don't Get Fired!*. We then present evidence of the impact this method has in the form of surveys, homework responses, class discussions, and a range of other classroom observation-based data. It was found that games can substantially impact identity and positively increase learner investment in lesson content. However, findings suggest many factors can sway these benefits, which include teacher interventions, support materials, design of curriculum, and game or gamified activity content. Observations for this chapter exclusively come from Japan; however, the suggestions included can be applied to many different contexts.

Keywords Game-based language learning · Gamification · Identity · Investment

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1 Introduction

The field of language education is always changing and new approaches are constantly being tried and tested in classrooms around the world. In particular, technology has greatly expanded the possibilities for classroom practice, providing more resources to teachers and students than previously available (Godwin-Jones, 2014; Sykes & Reinhardt, 2012; York & deHaan, 2018). However just because there are more resources does not automatically mean that they are better, and just because they involve technology does not imply they are better than traditional approaches. The uses and impacts of technological resources must be empirically explored in order to reach a greater understanding of the effects on the learning process and on language learners. In particular, the research area of game-based language learning (GBLL) and gamification requires further study in order to provide teachers with insight into how using games might influence pedagogy in the language classroom.

While there are numerous areas to explore with regard to games in the classroom, how learners identify themselves to, and invest in the use of games in the classroom is of significant importance to teachers as those ideas and identities impact how learners engage in classroom activities. As this area of game-based research is still underexplored, further investigation is warranted. Seedhouse (2005) has argued that reaching an understanding of the classroom in practice, and not just based on theories and conceptions of research, is vital in order to build better informed classroom practice. As such, the responses and ideas of learners in relation to game-based pedagogy in the classroom is a valuable area to explore to better understand how games are interpreted and related to by learners.

The purpose of this chapter is to build upon the base of literature dealing with the practical implementation of games and gamification in the classroom. Authors of similar papers, such as deHaan (2019), have stated that there is currently a lack of practical information about how language teachers can use games to aid classes. Conversely, there is a surplus of theoretical papers outlining why games are viable for language education. Language learner identity formation is another area in which games and gamification research has yet to fully explore. Thus, considering practical considerations for classroom implementation, this chapter will outline various pedagogical methods and observations from the implementation of games and gamification. Attention will be paid to how the activities are implemented into the existing curriculum and the effects they have on language learner identity.

2 Literature Review

2.1 Language Learning and Identity

Identity is a well-developed area of language education research that has continued to evolve over time (Block, 2009; Darvin & Norton, 2015). One of the most widely used definitions of identity is offered by Norton (2013) as, "The way a person understands his or her relationship to the world, how that relationship is constructed across time and space, and how the person understands possibilities for the future" (p. 4). Individuals have multiple identities, which they access in various social contexts and situations (Gao, 2014; Norton, 2001, 2013). These identities can be affected and changed by a number of internal and external factors; such as, but not limited to, family values (Ochs, 1993), school language policies (Kanno, 2003), or personal relationships (Mori, 2012). Additionally, as a complex construct with various perspectives and influences, language learner identity research has developed in a number of areas, especially regarding relations of power. Areas such as cultural identity (Gomez-Laich, 2016; Vasilopoulos, 2015), race and ethnicity (Kubota & Lin, 2009; Reyes, 2010), and gender (Higgins, 2010; Kubota & Chiang, 2013) have been productive lenses through which to consider the various factors influencing language learning.

As such a complex construct, when exploring language learner identity it is impossible to claim that any identities found in a study are the only identities present in that learner, or that those learners will always display those identities. However, the fact that such a social orientation is made is indicative of an impactful idea, action, or situation which the learner has deemed important enough to take a stance on in relation to themselves. With such a wide range of both observable and unobservable possibilities relating to identity, much of identity research rejects the infallibility of the arguments and interpretations made from data, and highlights the situated nature within which data collection occurred (Norton & McKinney, 2011).

Identity has provided a valuable lens through which to consider numerous elements of the language learning experience. These insights have provided additional depth and complexity to our understanding of language learning and furthered the field of second language acquisition (SLA) (Norton & McKinney, 2011). Lee (2014) highlighted the lived experience of Mina, a highly motivated Korean engineering graduate student in the United States. Identity was a particularly insightful approach to analysis in this case because it was clear that, although she was highly motivated, communicative and engaged in her local, school, and church communities, there were still struggles in her academic life. Ou and Gu (2018) also provide insight into the challenges of international communication for Chinese students with native English speakers in transnational higher education in China. Thus, identity is both well-established in research and has proven its value to our understanding of language learning.

2.2 Identity and Investment

To what extent a learner is willing to invest in various elements of their language learning is vitally important for their progress in the language. While this area has been well explored through the psychological construct of motivation (Apple et al., 2013; Dörnyei & Ushioda, 2009), the sociological complement of investment also has valuable insights that highlight the importance of the social context within which language learning is occurring (Darvin & Norton, 2015; Lee, 2014; Norton & De Costa, 2018; Norton Pierce, 1995).

The distinction between motivation and investment was described by Darvin and Norton (2015) in the following terms: "A student may be a highly *motivated* learner, but may not be *invested* in the language practices of a given classroom" (p. 37) (italics found in original text). Such examples have become well established in identity research (Lee, 2014; Norton, 2001, 2013), and are a core concept for understanding identity. Initially scholars such as Norton (Norton, 2013; Norton Pierce, 1995) conceived the complex social identity of the individual learner to be conveyed through their relationship with various social contexts and how those relationships change across time and space. Darvin and Norton (2015) proposed a comprehensive model of investment, integrating elements of the work of Bourdieu (1977, 1987) with the work of Norton (2013), where investment is the connection of identity, ideology, and capital. This model has been further argued for by Norton and De Costa (2018) as a critical lens through which to interpret the complex relationships of identity, ideology, and capital in the language learner. Each of these areas is relevant by themselves, but it is the interaction of these three elements that influence investment (Darvin & Norton, 2015). They are defined by Darvin and Norton as follows:

- *Identity* is the way in which an individual relates themselves to the world through time and space, constantly defining, and redefining how they will interpret and respond to various struggles and challenges. Individuals will utilize a plurality of identities based on social context and how the individual interacts with different social contexts.
- *Ideology* is the creation of a structure of power, which is enacted and spread across individuals by social practices that also determine what should or shouldn't be included or excluded within these practices. It is important to note that this definition also does not create a monolithic structure, instead opting for a fluid definition, which complements well with identity.
- *Capital* is the power provided through material, economic, cultural, and social means (Bourdieu, 1977). The role of symbolic capital, conceptualized by Bourdieu (1987), is of particular importance, in that what we consider to be valuable changes across time and space. What may be valued by one group, or at one point in time, may change with a different group or at a different time. Similar to identity and ideology in the definitions for this model, capital is also constantly changing, and fluid.

2.3 Why Play? Why Games?

Teachers can now support their classrooms with a variety of methods and materials that were not available a decade ago. Teachers can use online Youtube videos to quickly illustrate concepts being learned in class, teleconferencing to conveniently and quickly communicate with students from different countries, and a variety of online applications, such as blog writing and social networking sites. This begs the question as to why a teacher would consider using a game in the classroom if the field is already quite saturated with different ways to scaffold learning. This becomes more apparent when considering that research surrounding game-based language teaching is still considered to be in a state somewhere close to emerging from infancy (Gee, 2007; Peterson, 2013; Sykes & Reinhardt, 2012).

As Gee (2007) stated, language which is removed from experiences is generally quite difficult to process. Contextless knowledge is often the weakest in terms of understanding and retention. Ultimately, it is content that is learned with rich experiences that solidifies learning. Examples of this kind of learning include the usage of videos, role-plays in the classroom, live demonstrations, hands-on work, or (for the purpose of this research) games. deHaan (2019) stated, "Games are concrete experiences (and) instantiations of language" (p. 15). Thus, games not only create an environment of play and learning, but can also provide the meaningful experience necessary to help promote acquisition.

Many researchers have created frameworks incorporating games into the language classroom (e.g. Gaudart, 1999; Nicholson, 2015; Sykes & Reinhardt, 2012; Reinhardt, 2019). However, the majority of the literature about learning with games or learning through methods inspired by games seems to revolve around two terms: GBLL and gamification (Blume, 2019; Kapp, 2012; Reinders & Wattana, 2015; York & deHaan, 2018).

2.4 Game-Based Language Learning (GBLL)

Coleman's (2002) study highlighted connections that game-based learning (*Simcopter* and *The Sims*) could have when using games in class to teach academic writing. The success of the class as described by the author, however, relied heavily upon the importance of the teacher in the classroom, mediation factors, and the design of tasks made.

Miller and Hegelheimer (2006) and Ranalli (2008) conducted two important studies building upon Coleman's (2002) work. These researchers looked at the usage of digital computer games (*The Sims*) in the classroom and moved the field away from exploratory or theoretical papers into practical insights of how teachers could incorporate and mediate GBLL in their classrooms. Students in the studies displayed statistically significant gains in vocabulary acquisition after a period of time with the game.

Despite these promising results, the field of GBLL still lacks a large base of studies which systematically investigate the role of teachers in mediating pedagogy. A meta-analysis presented by Cornillie et al. (2012) reported the current trend in the field is to focus on more exploratory or theoretical studies. However, recent developments in the field seem to be moving towards more practical investigations of pedagogical considerations for the game-enhanced language classroom (York & deHaan, 2018).

Many studies have also revealed a great deal about how games can impact foreign language learning in students. Suh et al. (2010) found standardized test scores in Korean elementary school students showed improvements after playing a Massively Multiplayer Online Role-Playing Games (MMORPGs). Verbal fluency benefitted in a study done by Grimshaw and Cardoso (2018) which used *Spaceteam ESL*. A pre-post-test design which involved the students recording a monologue showed the group which played the game to be more fluent by raters.

In six different case studies showcasing students using games to learn English, deHaan (2013) stated that single player games may also benefit areas such as vocabulary acquisition and acquisition of certain grammar forms. Games that contain an immersive story or text that the player must engage with were shown to be more effective at driving English acquisition than other, less story or text focused, genres such as action or shooting games. Franciosi et al. (2015) showed that games (in this study's case, *3rd World Farmer*) used in conjunction with online vocabulary study tools (*Quizlet*) aided in long-term vocabulary retention when compared with students who only used *Quizlet* to study vocabulary.

2.5 Gamification

Gamification is the infusion of gaming elements into activities or applications that would originally be more closely related to traditional styles of learning such as test-taking, flashcards, or skill drilling (e.g. Figueroa Flores, 2015; Lombardi, 2015; Nicholson, 2015; Rachels & Rockinson-Szapkiw, 2018). Reinhardt (2019) states that gamification refers to when the "instructor applies game elements intentionally in ways and contexts that are not normally used" (p. 183). In the digital world, this could come in the form of taking vocabulary flashcards and making a cooperative fast-paced review "game" out of them, such as *Quizlet Live*, or making tests a class-wide competition with a program such as *Kahoot!*.

Research into this method includes Lombardi's (2015) work with a gamified classroom which revealed higher rates of participation. The research also found students stated they had fun during the classes while they also demonstrated better attitudes to learning English. Berns et al. (2016) used a developed-for-learning tool called *VocabTrainerA1*. They showed positive results in pre-post vocabulary tests and surveys which revealed that the students enjoyed the experience and believed it was useful to their education. Rachels and Rockinson-Szapkiw (2018) used *Duolingo* in their classes, though found no correlation between a treatment group which used the app and a control group which underwent traditional classroom instruction. The fact there was no difference between the two groups was presented as a positive result in that the application was argued to have proven itself equal to face-to-face teaching in foreign language learning.

Overall, much of the research surrounding gamification in language learning has yet to look deeply at language learner identity, willingness to communicate (WTC), or more qualitative measurements outside of student enjoyment or self-reported motivation. Dicheva and Dichev (2015) pointed this out by stating that the current state of research in gamification represents a serious lack of rigorous empirical data concerned with real language gains. This is attributed to the "hype cycle" around gamification and how it has gained an astonishing amount of popularity in such a short time. The authors stated, "Gamification in education is still growing and the practice has outpaced researchers' understanding of its mechanisms," (p. 1445). It seems the number of gamified applications that are available to teachers grows by the day, but the actual effectiveness of these applications is still highly variable.

2.6 Identity, Social Discourse, and Games

The field also contains a multitude of studies which show foreign language students benefiting from playing games in more profound ways than through simply measuring vocabulary retention of acquisition rates. Reinders and Wattana (2015) reported a higher WTC and lower affective barriers when students played an MMORPG (*Ragnarok Online*) in order to practice English skills. They emphasized the possibility of these games to help shy or non-willing students to communicate.

The above-mentioned study by Grimshaw and Cardoso (2018) also discovered that their game, *Spaceteam ESL*, was successful in reducing second-language speaking anxiety while also improving student WTC. Peterson (2012) discovered that MMORPGs could also benefit sociolinguistic competence. Participants in the study showed a better grasp of communicative strategies, such as turn-taking, politeness, and rapport-building, after an extended period of time playing the game and interacting with other players online.

It is important to note that there is a paucity in how language learner identity can be affected by playing games either in-class or extramurally. Gee (2005) wrote that games allow players to assume identities through play. They put themselves into the shoes of the character they see on screen and, thus, are able to adopt a new "identity" and experiment with the virtual world in that way. Squire (2011) echoes the same sentiment saying that games are "designed experiences" that can develop players' identities.

Zheng et al. (2015) showed that chat between natives and non-natives in virtual worlds can help form language learner identities. Blume (2019) also called for foreign language teachers to keep in mind that games can have a positive impact on the development of language learner identity. However, the field still lacks a larger body of literature detailing how classroom-based game usage can aid in the formation of language learner identities and pedagogical suggestions in which to facilitate it.

3 Methods

The previous sections explained the features crucial to identity, and the current state of research involving, GBLL and gamification. Also noted was the fact that research involving games and gamification has yet to take a comprehensive look at how games can aid in the formation of language learner identity and spur investment. Thus, this study will qualitatively explore how classroom interventions featuring games and gamification can impact identity and investment in order to fill a gap in the current state of the literature. In order to achieve this, the following research questions will be explored:

1. How do language learners identify with using games and gamification in the classroom?
2. How does the inclusion of games and gamification in the English classroom impact investment in English learning?

The implementation of games in each learning environment was slightly different; thus, they will be presented as independent cases linked by the common thread that they were all done to aid in language learner identity formation. Data taken from each set of classes comes mainly from written surveys about the activities the students undertook and teacher observations on how student interaction and use of the language changed over time with exposure to the games.

4 Results: Class Vignettes

This section features three different classroom contexts with a focus on how games or gamification was used in the classroom. Additionally, how student identity was measured and observed throughout the intervention will be reported. As each context used slightly different pedagogical methods, each context will be introduced separately.

4.1 First Year High School

Learner Profile The learners for this initial vignette were in their first year of an immersion program at a private high school in Japan. During their three-year high school experience, all learners study abroad for one year. The class used for this example was called the 'southern-hemisphere group' since all learners would study in either Australia or New Zealand. There were a total of forty students in this class that were split into two groups of twenty for their English classes. Data was collected from both groups.

After entering the program in April, the southern-hemisphere group received nine months of classes. Special emphasis was placed on English development to prepare them for their time abroad, which started in January. While abroad, the learners each live with a host family, and are placed in separate schools from each other. Upon returning to Japan, the content courses of the program (e.g. history, math, science) are taught in English, so the time spent abroad is not only a valuable experience for the learners, it is also essential for building the language skills necessary to succeed in later years of the program. Most learners in this group were born and raised in Japan, but some were raised, or had the experience of living, in other countries, such as Singapore, Thailand, Indonesia, and the United States. English was considered a valuable resource for this group, as it would prove essential in their eventual time abroad. Thus, learners showed a high level of motivation towards their English studies.

Curriculum The first year of the immersion program contains 10 h of English instruction per week – one three-hour home-stay English communications course, a three-hour vocabulary and grammar course, a two-hour academic English skills course, and a two-hour art course taught in English.

The data for this vignette were collected from the academic English skills course. This course was designed to give learners the skills they needed to succeed in an all English academic environment while abroad, as well as preparing them for their study of content courses in English upon returning to the immersion program. Skills covered in this academic communications course include note-taking, presentation, scanning for information, and focusing the topic of a presentation.

The course used the *21st Century Communication: Listening, Speaking, and Critical Thinking Level 1* textbook, which was challenging in terms of content and vocabulary for the learners. The vocabulary in this text includes words from the Academic Word List, with this often being the first time learners have been introduced to this type of vocabulary. Learners were required as part of the course to create vocabulary word cards – a technique well established to promote vocabulary acquisition (Nation, 2013). In addition to using vocabulary word cards, and meeting the words in the context of the textbook, the online game application *Kahoot!* was used to provide additional opportunities for vocabulary study.

Pedagogical Intervention Games were not the main method of instruction in this course, but were used more as a supplementary material to review and further solidify knowledge the learners already had. The online response system *Kahoot!* allows the creator to make and share quizzes or surveys by displaying them on a board or screen with up to four choices for participants to choose. Participants can respond from their phone, tablet, or computer, using the game code that is given at the start of each game. This game has become widely used in education as a fun and interactive way to engage learners with the content of the lesson (Wang & Tahir, 2020; Zarzycka-Piskorz, 2016). The game was used as practice in the class for upcoming vocabulary quizzes or exams.

The questions asked were similar to the types of questions learners would meet in the upcoming exams or quizzes, including identifying synonyms, parts of speech, and filling in the correct word for a sentence. By playing these games in class, learners were able to receive feedback on their answers individually, as well as compared to their classmates throughout the game. The rankings of the top scoring learners are displayed throughout the game, but lower scorers remain anonymous, allowing for feedback without the rest of the class knowing those results.

Observations For data collection, after playing a game of *Kahoot!* in class, learners were asked to complete a survey regarding their thoughts on using the game. The survey was adapted from a learner task assessment survey by Nunan (2004), and asked both open and closed questions, with space given to write comments for the closed questions. The survey took between 10 and 15 min to complete, and the comments were analyzed for common themes amongst responses.

One of the overwhelming responses from the learners was that they greatly enjoyed playing the game in class, as shown in the following comments:

> I think everyone had a lot of fun.

> I felt these were very good. I could enjoy learning words because these are like games, so we could play, talking with friends during these activities.

> I really enjoy this activity every time I do it.

In addition to these positive responses, some students gave even further detail on why they specifically enjoyed the game. The element of competition being a motivating factor in their enjoyment was mentioned by multiple students, including in the following responses:

> Since each of us was able to participate and have fun while doing our best to get the right answer, we were able to improve our abilities.

> It is fun to do this game with my friends and I feel that I don't want to lose this game.

> I want to get first place. So I think I shouldn't careless miss.

> These activities make me fun to study and our motivations are getting up. Also we can get confidence.

The importance of anonymity in the game was of particular importance to a few students, and allowed them to do their best without worrying that their incorrect answers would be shared with their classmates as witnessed in one participant who claimed:

> By not being able to see incorrect answers, the people who don't correctly answers aren't seen and don't need to feel embarrassed. It makes it easy to move on to the next question.

From these responses, it is clear that *Kahoot!* was viewed positively by the learners in this context. This positive response towards *Kahoot!* aligns with observations in other research (Wang & Tahir, 2020). In addition to being enjoyable, the learners also felt that competition was a motivating factor and increased their investment in the game and, by association, engagement with the material.

4.2 First Year University English – School of Law

Learner Profile Students in this class were in their first year in the school of law at a private university in Japan. Two classes received the treatment, encompassing 60 students in total. The two classes together have a total of 66 students, however six of those students were not present in some way during all the sessions in which the game was used, so their data was not used for this study. As per university requirements, all students must take at least one year of English classes. The students were of intermediate level of English (CEFR A2–B1). Some students had experiences travelling or studying overseas for brief periods, but there were no students who had spent a considerable time (i.e. a year or more) living abroad. All students were born and raised in Japan.

Curriculum This class was a general "four skills" English class. In other words, English reading, writing, speaking and listening were taught with a set textbook. This was the only English class the students took in their course load. Curriculum coordinators set a number of chapters the class must complete and any extra materials could be made at the teacher's discretion. As long as the textbook chapters were completed, the teacher could pace the class at any speed. The majority of the grading for the class came out of four main assignments: two presentations for the midterm and final, a week-by-week journal which the students had to write based on a topic related to the textbook or major class activities, and a 1,000-plus word essay to be turned in at the end of the semester. Suffice to say, day-to-day classroom activities had enough freedom which aided in the incorporation of GBLL opportunities and activities.

Pedagogical Intervention Games were used in the classroom; however, they were not the focus as the sole unit of study. Rather, they were used as support materials to solidify the content being learned in the textbook. The game selected supported an English learning article which highlighted working conditions in Asian countries where workers have to work long hours and overtime for no extra pay. The game used was a smartphone game called *Don't Get Fired!* which involves the player attempting to successfully find a job, work, and rise through the ranks of a company in Asia. The game has a rather melancholic tone to it, as players are often fired from their jobs and money is earned at an almost negligible rate. The game also includes a "part time job" mechanic where players can watch a short advertisement to gain in-game money at an increased rate. Implementation of the game in the classroom is described in Table 1 beginning from introduction activities to concluding assignments.

Formal assessment for the activity was done in three ways: the homework journal prompts which the students completed, participation in class discussions (which is an ongoing requirement of the class), and the choice of doing a final essay on a topic pertaining to the game content.

Table 1 Pedagogical interventions using *Don't Get Fired!*

Class #	Pedagogical intervention
1	The teacher assigns an article taken from online newspapers about working and the future. Content was picked based on coherence with the current textbook unit.
1	Students are given short worksheet which asks for their thoughts about working in Asia and their plans for the future. This worksheet also introduced the game *Don't Get Fired!* and included a short vocabulary section which reviewed common words in the game.
1	The students download the game as part of their homework. They are instructed to begin the game if they are curious about the contents of it, however starting the game is not mandatory.
2	The teacher shows students how to play the game and demonstrates the first two minutes so the students can observe someone playing it before they do.
2	Students are allowed to play the game for 30 min during class time. During this time, they are playing individually but are allowed to speak with each other.
2	Class discussion about their thoughts on the game, how they felt after playing the game in regards to joining the workforce in Asia, and their thoughts about if Japanese workplaces are similar to the workplace portrayed in the game.
2	Homework is assigned connecting *Don't Get Fired!* with the article read during the priming stage. Other prompts include student impressions of playing the game.
3	Students discuss their homework as an introduction to the third class. Answers are checked and discussed as a class on the white board.
3	Students are given another 30-min gameplay session in which they can freely play the game and communicate with other students.
3	A final discussion worksheet is given to the students about their evolving opinions about the game content (working in Asia) and their opinions about the game in general.

Observations Observations, homework journals, content-related worksheets given out before and after gameplay, and final essays written about the game content were employed as data. Initially, students viewed using games in class in a favorable light. Most of the students were genuinely curious and excited about the game they would play as indicated by the following comments:

> I sometimes watch Youtube videos in English. I want to try playing games in English also.

> I play a lot of games. But, I don't play games in English. I want to try it!

From this interaction, it can be considered that the students started this task motivated to learn through games. Upon playing the game, however, students felt that gameplay was not as fulfilling as they imagined. Initially students laughed and showed each other their smartphone screens each time they were fired, finding it amusing that they failed so quickly. However, this state did not last long; progression was slow to the point of decreasing enthusiasm. Students wanted to "win" by becoming rich, but the pace caused many students to feel they were not achieving anything. In their worksheet responses, they remarked that they felt less than enthusiastic about the game over time:

> The game was difficult. I don't know what I'm doing often. It's very easy to lose a job and money is not much. I lose motivation to continue.

> I don't like this game. It is difficult for me. It takes much time to get money.

Observations in class support this with the atmosphere becoming subdued with little interaction between students. Many students also noted that it was not "fair" that the part-time jobs would give more money than the actual job.

The slow drip of money in the game and the fact that part-time jobs pay more than their real job caused students to draw connections to real life. They connected the portrayal of working in the game to how they saw work in Japan. Students were highly engaged in discussions and wrote significant responses to journals and worksheet questions. This was corroborated in observing student interaction during gameplay in class and by reading through homework and essays that were turned in at the end of the semester. During the gameplay sessions, students began to note they felt less enthusiastic about playing the game. It was suggested in comments that this was due to the students drawing closer parallels to their own futures. They commented that this arose from the repetitive action of not doing much, getting very little compensation, and being fired for little to no reason:

> I feel difficult in that I have to care about boss feelings.

> This is exaggeration in this game, but Japanese working culture is like this game.

> It is power harassment. It is very unreasonable. Because the boss press a lot of hard job to subordinates. I feel bad.

Some who played the game said they wanted to work harder at their studies in English. This was because they did not want to fall into a workplace that they had become convinced would be like the game:

> I don't want to be like him (the on-screen character). Now, I want to study for the TOEFL exam more. I want to live in a foreign country.

> I want to work in foreign company now. I am more motivation for going on study abroad.

> You need language skill for jobs in Japan. Foreign language will help me find a better job than game job.

The game appears to have provided a significant boost in motivation to using the language outside of school. Students were not necessarily invested in the game itself. However, in envisioning themselves as working in an Asian company, it appears to have increased investment in learning English in general.

4.3 First Year University English – School of Business

Learner Profile The students who were enrolled in this class were studying business, management, and economics at a public university in Japan. In total, there were 42 students in the class. Two of these students were not included in the observations, as they were absent during the class periods when the game was used. Learners were streamlined into this class by English proficiency and the majority of students had TOEIC scores around 600 points (TOEFL IBT score of 65, or CEFR B1). Initially, the motivation to communicate in English was high; however, fatigue that originated from rigorous business and economics curriculum set in and caused the students to be less responsive during their English classes. This led to a general unwillingness to use English.

Curriculum There were three mandatory English classes the students had to enroll in during their first year: an English reading and writing class, a speaking and listening class, and an autonomous English E-learning class which consisted mainly of doing online grammar and vocabulary programs. The class in this section was the speaking and listening class. Therefore, the focus was on building skills to productively contribute to academic discussions in English. The course was 16 weeks long and consisted of four different topics (or units). One unit consisted of four once-a-week classes with journal homework every class dealing with a different aspect of the topic, a quiz in which students had to demonstrate their knowledge of certain discussion skills, and a graded discussion where students were to record a 5-min long conversation.

Pedagogical Intervention The game used for this class was *Spaceteam ESL*. Originally *Spaceteam*, this game was created by Henry Smith as a party game in which players would attempt to communicate instructions to other players in order to prevent a spaceship from crashing. An ESL version of the game was made with vocabulary that constitutes the first five thousand most common English words sorted by difficulty. As mentioned above, students in the class were discussing how technology impacts university students' lives as part of the curriculum. *Spaceteam ESL* was used to support these discussion themes. Prior research into the game has shown students who spend time playing it have lower affective filters, higher WTC, and higher English fluency rates (Grimshaw & Cardoso, 2018). A secondary hope for the introduction of this game to the class environment was to prompt students to produce more English during class time. The process of using the game during class time is outlined in Table 2.

Similar to the previous class outline, gameplay was not a focus of the class. Rather, spurring students to interact in English and, at the same time, gain a better understanding of how technology impacts student lives was the main goal of using the game.

Observations According to initial worksheet responses and beginning of semester surveys regarding student beliefs about using games in the classroom, students were split on their opinion about wanting to use games in the classroom and generally learning English with games. Some students remarked that they liked games as per the following responses:

Table 2 Pedagogical interventions using *Spaceteam ESL*

Class #	Pedagogical intervention
1	First priming discussion: students discussed whether smartphones can be tools for learning both inside and outside the classroom. Examples of learning applications are listed on the board by the teacher.
1	*Spaceteam ESL* is introduced to the students. Students are asked to search for and quickly read about the game using their smartphones.
1	A teacher-made pen-and-paper activity is given to the students which introduces mechanics from *Spaceteam ESL* such as information-gap and communication of rules and instructions from one student to the other.
1	Students are asked to download the game for homework and try it out if they have time.
2	During the next class, the teacher demonstrates the game to the students with an example group. Students are reminded of the rules (and the activity) from last week.
2	Students are given 30 min to play multiple rounds of the game in groups of four.
2	Class discussions are held about what the students thought about the game, their impressions of it, and also their changing thoughts on using smartphones and smartphone games to learn.
2	Students are given a topic which asks for their opinion on the game, whether they could see how the game connected to themes about technology and society, and whether they felt the game was effective as a learning tool.
3	Answers to the homework are discussed at the beginning of the next class, they are checked and discussed on the white board in front of the class.
3	Students play another 30-min session of *Spaceteam ESL*.
3	A graded (tape-recorded) discussion about the topic. Students prepare their answers to be discussed with random groups at the end of the class.

> I often practice English with online applications and games.

> I sometimes watch YouTube videos in English. I want to try playing games in English also.

In contrast, another student remarked:

> I like games. But, I don't want to use in class. We should learn from teacher and textbooks in class time.

Even with a demo session done by the teacher, it was difficult for students to initially grasp what they had to do in the game. It took them one game or 3–4 min of "hands-on time" in order to understand that they were not supposed to be showing each other their screens and that it was a game about communication. Once they understood the game, however, they felt it was easier to communicate as demonstrated by the following:

> When I am playing the game, I am a player. It is easier to speak in English when I am a player.

> Spaceteam ESL has real communication. I am not a student. I become a player.

This was supported by student journal homework and also through class observation. Students who were generally lacking in participation in English discussion time were much more willing to use English when it was done through the context of the game. In homework responses, it was also mentioned that the time pressure to speak played a role in forcing students to communicate in English:

> I communicate in Spaceteam ESL because time limit is low. We must read and say English in short time for goal.

These same students had opportunities to speak during activities with time-limits before. However, those interventions did not involve game elements. Thus, it could be inferred that the game-based context allowed for students to adopt a "player" identity which facilitated communication.

Generally, the reaction to the game was positive amongst students. Many felt that the game helped spur them to communicate in English. However, it should be noted that students did not feel as though they had learned anything from the experience. Student reactions to the game very pointedly did not include any mention of its benefit to their English literacy; only that the game provided an easier environment to speak for those who would otherwise be hesitant to speak. Classroom observations after the treatment also attest to the fact that students who played the game were generally only more communicable during game sessions. Thus, the shift in identity to the game player and its benefits was only observed during those isolated instances.

5 Discussion

As stated above, research has concluded that gaming contexts can have a positive effect on language learner identities (Gao & Lamb, 2011; Peterson, 2012, 2013; Reinders & Wattana, 2015). However, those studies were carried out primarily in online, or informal, contexts. Building upon this, the current study yielded promising results regarding the integration of games into the classroom environment through pedagogical intervention.

It is also important to note that current findings may not be entirely generalizable as the majority of data consists of self-reported information that was, in some part, included in the assessment for the class. Thus, students may have felt that it was advantageous to report what they believed the teacher wanted to hear. However, the fact that the data was collected from a range of sources, including discussions and assignments, partly addresses this concern and offers support for its reliability.

The first research question posited was, "How do language learners identify with using games and gamification in the classroom?" To begin addressing this question, the use of *Kahoot!* in the classroom was viewed positively by learners and most felt that such games were beneficial for their English. Since this vignette was not taken longitudinally, it is not possible to make claims of long-term changes to the identity of learners based on using games, but it does speak to the generally high regard that the learners held for the game. The learners in this context recommended further use of games in class, although the extent to which more frequent use of such games would continue to receive this type of response is unexplored.

With respect to classroom use of *Don't Get Fired!*, responses from the students showed quite a high level of engagement with the game content even though it was presented in a foreign language. The repetitive and hopeless tone of the game turned many students off from wanting to play it, many citing "difficulty" problems. However, they were also able to identify with the on-screen game characters who experienced many of the trials and tribulations of working at an Asian company. This suggests that the game prompted an examination of personal identities in the real world and future career trajectories. Players implicitly understood that the game was showing them a parody of a working environment, but were still able to draw connections to real life. Finally, in terms of language development, students gained higher motivation to further their English studies through identifying strongly with the game. This translated to more interest in studying abroad.

These findings further support the fact that student identities were being impacted by gameplay, and by "trying on" the identity of a salaryman at an Asian company, learners found themselves wanting to go in a different direction that the game portrayed. Many of these findings were also observed in a study deHann (2019) conducted with a student who was exposed to several games. After this exposure, the researcher reported that the experience ultimately culminated in a higher degree of learner engagement with the language and willingness to participate in more learning opportunities.

Spaceteam ESL illustrated a different aspect of how students identified with the use of games in the classroom. Through playing games, students engaged with English much more than with conventional classroom tasks. Students saw themselves as being able to talk when they became "players" in the game. This seems to strip away many of the affective barriers and increased WTC – a finding also reported by Grimshaw and Cardoso (2018). Students attributed this to becoming a "player" or "game-player", thereby indicating the extent shifting roles and identities can impact students who use games to practice language skills. However, it was noted that students did not actually feel like they learned anything, and the transition into a different identity (that of a player) did not help them retain language knowledge. It should be noted, however, that outside of reviewing vocabulary for the game and connecting the game to class discussions, there was no intensive language focus placed upon the linguistic aspects of the game.

The second research question was, "How does the inclusion of games and gamification in the English classroom impact investment in English learning?" The high levels of investment shown towards the quiz game *Kahoot!* speak to its educational benefits when used in the classroom. Learners spoke of their increased interest in learning in this way as well as increases in their motivation for the class. While learning achievement and definitive proof of language acquisition are outside the scope of this study, the positive feelings and interest in the game suggest the potential classroom benefits of games such as *Kahoot!* for learner engagement and investment.

Impacting investment in language learning was most clearly seen in *Don't Get Fired!*, as some of the responses to homework and discussions involved students saying they wanted to study more English in order to not work in Japan. This suggests game content was influential enough for some students to adapt their lifestyles/plans in order to avoid encountering the same situation. Many students also stated that obtaining a higher salary (or better job) was dependent upon their English skills, and to this they also attributed their higher investment in learning English. Overall, parodying the harshness of company environments to an overly exaggerated extent seems to benefit student investment. It was clear that they were engaging with the content and allowing themselves to take in the message.

While there were no learning goals reported, learners did learn vocabulary in order to play the game, although, outside of this, there was no mention of this game contributing to linguistic competence. Before the study began, the students did not comment on whether they were originally planning on going abroad; thus, the extent to which the game impacted them cannot be entirely ascertained. In other words, whether the game strengthened their resolve to study overseas or caused them to consider the program is not known.

Investment and engagement in the English language was somewhat of a more complicated issue when discussing *Spaceteam ESL*. Students commented that becoming a player allowed them to speak more; however, this was not a lasting change. Observations in class also revealed that the overall impact of higher rates of English communication was a phenomenon that was short-lived. In other words, benefits to investment and shifts in identity were only experienced for the duration of the game. This could have been due to students feeling that the game was merely another language-related activity even if the class content at the time closely related to it.

It should be noted that the content of *Don't Get Fired!* more closely mirrored class discussions and the focus of gameplay was more on content than linguistic capability. Students may have felt the game to be another task in a long line of activities given to them by their many English language teachers in order to spur more communication. While certainly successful on this part, the lack of relatability to their current lives could have caused the negligible impact the game had on benefitting language learning investment.

6 Conclusion and Future Research

Games can impart affectively powerful influences on language learners if both game content and pedagogical utilization work together. Many who played *Don't Get Fired!* were spurred to work harder in their English studies so they could bring their skills and talents abroad to companies they believe would treat them better. While this may not be the case, the game was nevertheless effective in facilitating the drive to move to a different country. *Spaceteam ESL* did show that allowing students to step into a different "role" than they are given in school could be for the benefit of English communication as well. The nature of the game and how it was set up more or less forced players to communicate in English. Thus, the content of the game was able to help students adopt the "English player" identity.

As quiz content differs from quiz-to-quiz, nothing definitive can be said about *Kahoot!*. However, engaging students in a "fun" activity for them to experience in the classroom increased investment for a short time. In essence, using English games can promote investment and understanding of content, although this varies wildly. Gamified activities such as *Kahoot!* were shown to promote investment and interest in learning English further; however, this was not seen with a game like *Spaceteam ESL*. Students admitted that they were engaged during the time they played the game, although it was observed that this does not necessarily mean they will improve after the gameplay session has ended. Further research could be done into how to make these positive identity shifts last for longer periods of time. This was a positive change, and thus new methods of teacher scaffolding during or after gameplay would benefit the field.

An extremely interesting anecdote that was observed with students who played *Don't Get Fired!* was that "fun" may not always be necessary to promoting comprehension of content or changes in learner investment. As mentioned above, the students thought the game was slow, difficult, and meaningless. However, they understood the connections to real life and many even stated they took away a deeper interest in furthering their English skills. Despite this, it remains that during gameplay sessions in class, there was no jovial atmosphere that researchers before have attributed to making games work in education (Godwin-Jones, 2014). Divorcing games from fun and observing how the link continues to work could be an avenue of future research.

Due to the variable nature of games in the classroom, giving generalizing implications across all games cannot be done in confidence. With this point acknowledged, certain conclusions pertaining to pedagogical implementation of games can be reached. First, it is imperative that teachers consider pedagogical structure when using games in their classrooms. As Miller and Hegelheimer (2006), Ranalli (2008), and deHaan (2019) have shown, games alone cannot be a "magic bullet". In this case, simply getting students to play games or take part in gamified activities most likely would not have allowed them to reflect upon the experience sufficiently to process them. Teachers cannot stand back and watch. They must form unique support materials to take full advantage of games and gamification in the classroom.

In conclusion, this study explored the classroom implementation of games and their relation to the identity and investment of learners in a number of classroom contexts in Japan. The results indicate that games can beneficially engage learners in the classroom if used with proper pedagogical support and that they are generally viewed positively by the learners themselves. The limitations of this study constrain the overall generalizability of our conclusions, but early indications emerging from the research should be explored further in a wider range of contexts and age ranges. The research field of game-based pedagogy in the classroom could be explored even further by looking at changes in identity and investment in games more longitudinally, as well as exploring the acquisitional benefits games may provide. Overall, games hold a lot of potential for future classroom and research implementation, and further exploration is warranted.

References

Apple, M. T., Da Silva, D., & Fellner, T. (Eds.). (2013). *Language learning motivation in Japan*. Multilingual Matters. https://doi.org/10.21832/9781783090518

Berns, A., Isla-Montes, J., Palomo-Duarte, M., & Dodero, J. (2016). Motivation, students' needs and learning outcomes: A hybrid game-based app for enhanced language learning. *Springerplus, 5*(1), 1–23. https://doi.org/10.1186/s40064-016-2971-1

Block, D. (2009). *Second language identities*. Bloomsbury Publishing.

Blume, C. (2019). Playing by their rules: Why issues of capital (should) influence digital game-based language learning in schools. *CALICO Journal, 36*(1), 19–38. https://doi.org/10.1558/cj.35099

Bourdieu, P. (1977). The economics of linguistic exchanges. *Social Sciences Information, 16*(6), 645–668. https://doi.org/10.1177/053901847701600601

Bourdieu, P. (1987). What makes a social class? On the theoretical and practical existence of groups. *Berkeley Journal of Sociology, 32*(1), 1–17.

Coleman, D. W. (2002). On foot in SIM CITY: Using SIM COPTER as the basis for an ESL writing assignment. *Simulation and Gaming, 33*(2), 217–230. https://doi.org/10.1177/1046878102332010

Cornillie, F., Clarebout, G., & Desmet, P. (2012). Between learning and playing? Exploring learners' perceptions of corrective feedback in an immersive game for English pragmatics. *ReCALL, 24*(3), 257–278. https://doi.org/10.1017/S0958344012000146

Darvin, R., & Norton, B. (2015). Identity and a model of investment in applied linguistics. *Annual Review of Applied Linguistics, 35*(1), 36–56. https://doi.org/10.1017/S0267190514000191

deHaan, J. W. (2013). *Video games and second language acquisition*. Common Ground Publishing.

deHaan, J. W. (2019). Teaching language and literacy with games: What? How? Why? *Ludic Language Pedagogy, 1*, 1–57.

Dicheva, D., & Dichev, C. (2015). Gamification in education: Where are we in 2015? In *Proceedings of E-learn 2015* (pp. 1445–1454). Kona.

Dörnyei, Z., & Ushioda, E. (Eds.). (2009). *Motivation, language identity and the L2 self*. Multilingual Matters. https://doi.org/10.21832/9781847691293

Figueroa Flores, J. F. (2015). Using gamification to enhance second language learning. *Digital Education Review, 27*(1), 32–54.

Franciosi, S., Yagi, J., Tomoshige, Y., & Ye, S. (2015). The effect of a simple simulation game on long-term vocabulary retention. *CALICO Journal, 33*(2), 355–379.

Gao, Y. (2014). Faithful imitator, playful creator and dialogical communicator: Shift in English learners' identity prototypes. *Language and Intercultural Communication, 14*(1), 59–75. https://doi.org/10.1080/14708477.2013.866124

Gao, X., & Lamb, T. (2011). Exploring links between identity, motivation and autonomy. In G. Murray, X. Gao, & T. Lamb (Eds.), *Identity, motivation and autonomy in language learning* (pp. 1–11). Mutilingual Matters. https://doi.org/10.21832/9781847693747-002

Gaudart, H. (1999). Games as teaching tools for teaching English to speakers of other languages. *Simulation & Gaming, 30*(3), 283–291.

Gee, J. P. (2005). Learning by design: Good video games as learning machines. *e-Learning, 2*(1), 5–16.

Gee, J. P. (2007). *What video games have to teach us about learning and literacy*. Palgrave Macmillan.

Godwin-Jones, R. (2014). Emerging technologies in language learning: Opportunities and challenges. *Language Learning and Technology, 18*(2), 9–19.

Gomez-Laich, M. P. (2016). Second language learners' divergence from target language pragmatic norms. *Studies in Second Language Learning and Teaching, 6*(2), 249–269. https://doi.org/10.14746/ssllt.2016.6.2.4

Grimshaw, J., & Cardoso, W. (2018). Activate space rats! Fluency development in a mobile game-assisted environment. *Language Learning and Technology, 22*(3), 159–175.

Higgins, C. (2010). Gender identities in language education. In N. H. Hornberger & S. L. McKay (Eds.), *Sociolinguistics and language education* (pp. 398–426). Multilingual Matters. https://doi.org/10.21832/9781847692849-016

Kanno, Y. (2003). Imagined communities, school visions, and the education of bilingual students in Japan. *Journal of Language, Identity, and Education, 2*(4), 285–300. https://doi.org/10.1207/S15327701JLIE0204_4

Kapp, K. M. (2012). *The gamification of learning and instruction*. Wiley.

Kubota, R., & Chiang, L. T. (2013). Gender and race in ESP research. In B. Paltridge & S. Starfield (Eds.), *The handbook of English for specific purposes* (pp. 481–499). Wiley. https://doi.org/10.1002/9781118339855.ch25

Kubota, R., & Lin, A. (Eds.). (2009). *Race, culture, and identities in second language education: Exploring critically engaged practice*. Routledge. https://doi.org/10.4324/9780203876657

Lee, E. J. (2014). Motivation, investment, and identity in English language development: A longitudinal case study. *System, 42*(1), 440–450. https://doi.org/10.1016/j.system.2014.01.013

Lombardi, I. (2015). Fukudai hero: A video game-like English class in a Japanese national university. *EL.LE: Educazione Linguistica. Language Education, 4*(3), 483–500. https://doi.org/10.14277/2280-6792/ELLE-4-3-15-7

Miller, M., & Hegelheimer, V. (2006). The SIMs meet ESL: Incorporating authentic computer simulation games into the language classroom. *Interactive Technology and Smart Education, 3*(4), 311–328. https://doi.org/10.1108/17415650680000070

Mori, J. (2012). Tale of two tales: Locally produced accounts and memberships during research interviews with a multilingual speaker. *The Modern Language Journal, 96*(4), 489–506. https://doi.org/10.1111/j.1540-4781.2012.01399.x

Nation, I. S. P. (2013). *Learning vocabulary in another language* (2nd ed.). Cambridge University Press. https://doi.org/10.1017/CBO9781139858656

Nicholson, S. (2015). A recipe for meaningful gamification. In T. Reiners & L. Wood (Eds.), *Gamification in education and business* (pp. 1–20). Springer.

Norton, B. (2001). Non-participation, imagined communities and the language classroom. In M. P. Breen (Ed.), *Learner contributions to language learning: New directions in research* (pp. 159–171). Routledge.

Norton, B. (2013). *Identity and language learning: Extending the conversation*. Multilingual Matters. https://doi.org/10.21832/9781783090563

Norton, B., & De Costa, P. I. (2018). Research tasks on identity in language learning and teaching. *Language Teaching, 51*(1), 90–112. https://doi.org/10.1017/S0261444817000325

Norton, B., & McKinney, C. (2011). An identity approach to second language acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 73–94). Routledge.

Norton Pierce, B. (1995). Social identity, investment, and language learning. *TESOL Quarterly, 29*(1), 9–31. https://doi.org/10.2307/3587803

Nunan, D. (2004). *Task-based language teaching: A comprehensively revised edition of designing tasks for the communicative classroom*. Cambridge University Press. https://doi.org/10.1017/CBO9780511667336

Ochs, E. (1993). Constructing social identity: A language socialization perspective. *Research on Language and Social Interaction, 26*(3), 287–306. https://doi.org/10.1207/s15327973rlsi2603_3

Ou, W. A., & Gu, M. M. (2018). Language socialization and identity in intercultural communication: Experience of Chinese students in a transnational university in China. *International Journal of Bilingual Education and Bilingualism, 24*, 419–434. https://doi.org/10.1080/13670050.2018.1472207

Peterson, M. (2012). Learner interaction in a massively multiplayer online role playing game (MMORPG): A sociocultural discourse analysis. *ReCALL, 24*(3), 361–380. https://doi.org/10.1017/S0958344012000195

Peterson, M. (2013). *Computer games and language learning*. Palgrave Macmillan.

Rachels, J., & Rockinson-Szapkiw, A. (2018). The effects of a mobile gamification app on elementary students' Spanish achievement and self-efficacy. *Computer Assisted Language Learning, 31*(1), 72–89. https://doi.org/10.1080/09588221.2017.1382536

Ranalli, J. (2008). Learning English with the Sims: Exploiting authentic computer simulation games for L2 learning. *Computer Assisted Language Learning, 21*(5), 441–455.

Reinders, H., & Wattana, S. (2015). Affect and willingness to communicate in digital game-based learning. *ReCALL, 27*(1), 38–57. https://doi.org/10.1017/S0948344014000226

Reinhardt, J. (2019). *Gameful second and foreign language teaching and learning: Theory, research, and practice*. Springer.

Reyes, A. (2010). Language and ethnicity. In N. H. Hornberger & S. L. McKay (Eds.), *Sociolinguistics and language education* (pp. 398–426). Multilingual Matters. https://doi.org/10.21832/9781847692849-017

Seedhouse, P. (2005). "Task" as research construct. *Language Learning, 55*(3), 533–570. https://doi.org/10.1111/j.0023-8333.2005.00314.x

Squire, K. (2011). *Video games and learning: Teaching and participatory culture in the digital age*. Teachers College Press.

Suh, S., Kim, S., & Kim, N. (2010). Effectiveness of MMORPG-based instruction in elementary English education in Korea. *Journal of Computer Assisted Learning, 26*(5), 370–378. https://doi.org/10.1111/j.1365-2729.2010.00353.x

Sykes, J. E., & Reinhardt, J. (2012). *Language at play: Digital games in second and foreign language teaching and learning*. Pearson Higher Education.

Vasilopoulos, G. (2015). Language learner investment and identity negotiation in the Korean EFL context. *Journal of Language, Identity & Education, 14*(2), 61–79. https://doi.org/10.1080/15348458.2015.1019783

Wang, A. I., & Tahir, R. (2020). The effect of using Kahoot! – A literature review. *Computers & Education, 149*, 1–22. https://doi.org/10.1016/j.compedu.2020.103818

York, J., & deHaan, J. (2018). A constructivist approach to game-based language learning: Student perceptions in a beginner-level EFL context. *International Journal of Game-Based Learning, 8*(1), 19–40. https://doi.org/10.4018/IJGBL.2018010102

Zarzycka-Piskorz, E. (2016). Kahoot it or not? Can games be motivating in learning grammar? *Teaching English with Technology, 16*(3), 17–36.

Zheng, D., Bischoff, M., & Gilliland, B. (2015). Vocabulary learning in massively multiplayer online games: Context and action before words. *Educational Technology Research and Development, 63*(5), 771–790. https://doi.org/10.1007/s11423-015-9387-4