

The effects of gamification on learners with poor Willingness to Communicate.

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Preface

This research was conducted as part of my teacher training education at Fontys Hogescholen. The main fields of interest are Willingness to Communicate and gamification, which were chosen for numerous reasons. Firstly, I contribute much of the success of my learning English to gaming; having grown up around games and them being a major part of my life has made language learning enjoyable and motivating. Secondly, I believe being able to freely communicate and having the confidence to speak to others to be the ultimate goals for language learners to attain. During my teaching, I have encountered many students who felt unable or unwilling to engage actively in the English language during lessons. However, when engaged outside the formalities of the classroom, these students would gladly share their stories about their hobbies and life events. Chief among those conversations was the topic of gaming. Due to my experiences with gaming and language learning, and my students' high levels of Willingness to Communicate when discussing video games, I grew interested in applying the power of gaming to elicit spontaneous communication to my teaching.

In order to benefit this research's proceedings, many contributed their time and effort. I would like to extend my gratitude to Lonneke Notermans for her diligence in guiding me in the process of conducting the research. I also thank my colleagues at Sintermeertencollege for sharing their input and support during and after the intervention. Finally, I give my love to Eva Venken for reassuring me during times of personal doubt.

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Abstract

This research took place in the first-year bilingual class B1JT at Sintermeertencollege, a secondary school in Heerlen, The Netherlands. Despite a focus on communication skills during English lessons, many students in B1JT experience low willingness to communicate in class. However, many of these students present high willingness to communicate when talking about leisure activities or familiar topics, with gaming being the most prevalent. This research set out to apply that same willingness to communicate to the classroom by gamifying a series of lessons with express focus on goal orientation, achievement, reinforcement, fun orientation, progress tracking, and storyline-based learning. The lesson series was created using PowerPoint and various other subsidiary computer programmes. Due to the ongoing COVID-19 quarantine, the intervention was conducted through the school's preferred online teaching platform, Microsoft Teams. The experimental group was formed based on various criteria regarding the discrepancy between willingness to communicate inside and outside the classroom and participants were asked to report their experiences during the intervention by means of a questionnaire and interviews. Both methods of data-collection outlined generally positive experiences with strong feelings of engagement and motivation being highlighted by participants.

Chapter 1: Introduction

1.1 School context

Over the course of my final internship I have been teaching English at the Sintermeertencollege, a secondary school in Heerlen where I have had the opportunity to participate in the pilot of their mavo bilingual programme. Secondary school in the Netherlands is subdivided into three major levels of educational challenge: mavo, havo, and vwo. Students are placed in these levels according to the advice of the primary school and the results of a national standardized test called the “Centrale Eindtoets”. Bilingual education has long been established for vwo students and has slowly been introduced into havo classes. As of now, bilingual mavo programmes are still in their infancy. Class B1JT is one of such pilot groups of first-year students who receive all their classes in English, with the exception of French, Dutch, mathematics, and biology. They also receive extra English lessons at the same level as havo and vwo bilingual classes.

In all bilingual groups, Sintermeerten focuses on various key aspects of language teaching: grammar, vocabulary, and skills training. The mavo bilingual group is no different as the English lessons are designed to prepare them for the use of English during their other courses. Through this extra focus on skills training, the bilingual department attempts to provide the students with the confidence to communicate in English in all their classes. The advanced vocabulary and grammar training, in turn, gives them the precision to express themselves as they need to throughout their bilingual education. For both grammar and vocabulary training, the teaching method “*Eyes Open*” is used and is often complemented by further activities designed by the English department. Each teacher has control over their own organization when it comes to skills training as there is no predetermined method to which one must adhere. There are, however, various skill-assessment moments throughout the year in the form of presentations, performances, listening tests, reading tests and (creative) writing tests.

B1JT’s lessons are shared between my teaching coach and myself, and we both teach the coursebook as well as skills lessons. Our personal curriculum for the skills lessons consists of a combination of items that my teaching coach and I create, various materials from the bilingual department, and activities shared by colleagues. All these activities are designed to adhere to the appropriate CEFR level, namely B1, and are sourced from the British Council, English coursebooks, or created by Sintermeerten’s own teachers. There exists a strong communication between the various English teachers within the bilingual department as meetings about the planning of and changes to the curriculum to further develop our teaching are frequent and commonplace. Many lessons, but especially the skills lessons, include various teaching tools such as PowerPoint, LessonUp, and Kahoot.

1.2 Research incentive

As previously mentioned, the skills lessons attempt to engage learners with the language and make them comfortable with the idea of speaking English. Whereas the lessons have shown to have a positive effect according to Sintermeerten, there still exists a tangible hesitation to produce English in many learners in my bilingual group. There will always be students who are more easily engaged and feel more confident to speak in a classroom setting; however, the difference between learners in this particular bilingual class seems to diverge over time. The confident students appear to become more confident and the reticent students more reticent. Despite this seemingly worrying trend in willingness to communicate (WTC) in the classroom setting, these reticent students rarely show this lack of confidence when spoken to outside of the classroom or when they are invited to express their feelings on a topic they feel strongly about. When questioned about their personal interests or hobbies, these students often erupt in lengthy anecdotes about their experiences and enjoy sharing their stories without hesitation, even in the target language. Nevertheless, as soon as the lesson starts, they lose that spontaneity and their WTC with it.

Many personal conversations have taken place between teacher and student in hopes of harnessing that spontaneity, but rarely does that transfer into the boundaries of the lesson. Through applying various elements of extra-curricular contexts in which learners are willing to communicate to the classroom, this research seeks to replicate part of that WTC. When questioned about their WTC, many students in this particular class reported that they feel the least amount of difficulty to speak English while engaged in activities related to videogaming, especially in an online- or team-based setting with other English speakers. Therefore, this research sets out to increase WTC through a process called gamification; the utilization of game-design elements and game principles in non-game contexts, in this case the classroom.

To determine whether or not the intended increase in WTC has taken place, an experimental group must be created. This experimental group would consist of students that display factors of the behaviour previously described; a below average WTC during the lesson yet consistent unimpeded production outside of the classroom setting.

Various challenges might be encountered over the course of the intervention as my familiarity with gamification has previously shed light on several potential obstacles. Whereas many students in this group appreciate gaming and its culture, there are some who have only minimal experience with playing videogames. There was also one student who suggested that they disliked the practice. The objective is to show restraint in terms of elements which might prove alienating for these learners so as to not negatively impact their WTC during the intervention. Another obstacle might be that those students with greater WTC will experience a further boost due to the intervention appealing to their interests as well and might therefore overshadow their classmates. The important thing is to then maintain balance and to not take away from the enthusiasm of one of these students yet still make sure to pay special attention to the WTC of those who normally rarely display spontaneous speech.

1.3 Literature and colleagues on the research incentive

The following sources have proven most beneficial to congregate literature support for this research when searching using the following key terms: Willingness To Communicate (WTC), Gamification, Game-Based Learning (GBL), Learner Agency, Second Language (L2) motivation, English as a Second Language (ESL), and English as a Foreign Language (EFL).

- [Google Scholar](#)
- [Academia.edu](#)
- [Researchgate.net](#)
- [Unitec.researchbank.ac.nz](#)

Second language (L2) learners are subject to many different factors which may influence their WTC. Zarrinabadi (2014) established that one key factor which influences WTC is the teacher's decision on the lesson topic. Familiarity with the topic presents students with the opportunity to comfortably use the L2 and to become more relaxed and confident with using the L2. Moreover, students seem to be more interested in a topic when they were given agency in choosing it themselves (Zarrinabadi, 2014). A familiar topic can also contribute to a greater perceived L2 competence (Zarrinabadi, 2014) which can "play a significant role in generating or reducing an individual's tendency to communicate in the L2" (Reinders & Wattana, 2014, p. 102). Students' perceived L2 competence plays a large role in shaping classroom WTC and might be more influential than an individuals' actual competence in deciding whether or not to communicate (Baker & MacIntyre, 2003). Students with low perceived L2 competence are less likely to engage in authentic L2 communication (Kang, 2005), have fewer prospects for authentic practice, and, therefore, achieve poorer language proficiency than those with high perceived L2 competence (MacIntyre, Clément, Baker, & Conrod, 2001).

Whereas modern pedagogy emphasizes the use of authentic material and production, students often lack sufficient exposure to the target L2 both inside and outside the classroom setting (Reinders & Wattana, 2014). One way that students are exposed to authentic language is through network-based digital games such as massive multiplayer online role-playing games (MMORPGs), multiplayer online battle arenas (MOBAs), Battle Royale games, and various other genres (Reinders & Wattana, 2014). These games provide a platform for stress-free social interaction in the L2 through anonymity of a virtual character, familiar topics, and plenty of opportunities to make mistakes without judgement (Reinders & Wattana, 2014). Gaming also provides students with further agency as they themselves decide on the actions taken by their character to influence the story, gameplay, relationships with others, and many more aspects of the game. This agency, in turn, could lead to further engagement and an increase in motivation (Mercer, 2011). With gaming being a familiar topic in this particular classroom, students being used to authentic communication in this medium, and the introduction of more agency leading to greater motivation and participation, gamification has the opportunity to adopt these three aspects which are beneficial to WTC and apply them to the classroom. Due to these findings it can be concluded that an intervention based on the familiar topic of gaming and various elements of game design might prove beneficial to bolstering a student's engagement, perceived competence, and, therefore, WTC.

When introduced to the research incentive, fellow teachers recognized the issue and expressed their own struggles with getting students to open up and break down this barrier that stands between them and spontaneous production in the classroom. Most colleagues also emphasized the difficulty to gauge the source of a student's lack of WTC as the students themselves often find it difficult to convey or are unwilling to do so. This not only presents a major obstacle for teachers when attempting to increase classroom WTC but also for the student who might feel misunderstood or undervalued. Another factor that might contribute to the discrepancy was raised, namely the amount of recreational time the student devotes to English books, television, gaming, and other hobbies during which they may come into contact with the language. Various teachers shared the opinion that students who have a tendency to play videogames show greater WTC and believe that the increased exposure to authentic language and stress-free social situations found in gaming provide a strong foundation for L2 WTC to prosper. Finally, some colleagues shared various anecdotes about students who suddenly came alive and took over classroom discussions when the topic of gaming was raised despite their usual below average classroom WTC.

1.4 Core product idea

In accordance with the findings from both the literature research and from anecdotal evidence from secondary school educators, the core product will take the shape of a gamified lesson series in which a topic chosen by students from the mavo bilingual class with poorer WTC will take centre stage. Various familiar aspects from games will be implemented into this lesson series such as the use of puzzles, lives, character creation, items, inventory systems, music, and a diverging narrative based on the choices made by the students. The product will take shape as a PowerPoint adventure and mimics the appearance of a point-and-click adventure akin to the videogame "Myst" published by Brøderbund in 1993.

The "genre" in which the lesson series will take place will be decided based on the results from a survey (*Appendix A*) which will be given to the experimental group. The class will be subjected to various obstacles which they need to overcome by working together as a group to discuss and finally select the best course of action from a list of multiple-choice options. Each obstacle provides an opportunity for agency as well as for the students to show their WTC during these classroom discussions.

1.5 Supporting research question

The subsequent research question can be formulated based on the research incentive and the core product idea:

"How do students with poor L2 willingness to communicate experience the application of gamification to a lesson series regarding their L2 willingness to communicate in a classroom setting?"

The measurements will take place after the application of the core product in two stages each with their own instrument. Firstly, the experimental group will take a survey in which they are asked to outline their experiences regarding the effects of the gamification intervention on their WTC. Secondly, I will conduct personal interviews with the experimental group in which I hope to outline the various aspects which they felt had the greatest effect on their WTC and which perhaps were detrimental or less effective.

Chapter 2: Designing the educational product

2.1 Exploring and selecting design criteria

Literature research conducted through the key terms Gamification, Willingness to Communicate (WTC), Game-Based Learning (GBL), and Learner Agency has shown that various criteria for an effective application of gamification in education have been outlined. A framework comprised of five main principles for successful implementation of gamification in the classroom emerges: (i) Goal orientation, (ii) Achievement, (iii) Reinforcement, (iv) Competition, and (v) Fun orientation (Telaprolu, Rallapalli, Nah, & Venkata, 2013). Numerous other researchers employ additional principles and variations to those already mentioned. Glover (2013), for example, adds the ability to track one's progress as an essential aspect of player engagement strategies in game design and claims it could introduce these same benefits to the classroom. Additionally, McGonigal (2011) emphasizes the benefits of storyline-based learning and the ability of a game's narrative to differ from those found in films, books, and other media by allowing the player to influence the story through their actions and meaningful choices.

2.1.1 Goal orientation

In the aforementioned conference proceedings (Telaprolu, Rallapalli, Nah, & Venkata, 2013) it is suggested that the structure of a gamified lesson should be centred around various goals which the "player" must complete. It is important for these goals to be layered in such a way that students must complete various short- and medium-term goals in order to complete the long-term goal of completing the gamified lesson. Examples of these interim goals might be certain levels, quests, exercises, or puzzles. As the lesson continues, these goals should progressively become more difficult in order to continuously challenge the player. Gamification's emphasis on goal-focused activities which are centred around skills such as creative thinking or organisation have been shown to positively contribute to the amount of time spent per task (Glover, 2013). Another benefit of a clearly outlined goal structure is that it can bolster learner motivation and engagement (Telaprolu, Rallapalli, Nah, & Venkata, 2013) which are predictors for an increase in WTC (Yashima, 2002).

2.1.2 Achievement

Throughout the gamification process, players should feel recognized for their accomplishments as it contributes to their sense of gratification which, in turn, reinforces motivation and engagement (Telaprolu, Rallapalli, Nah, & Venkata, 2013). Badges, trophies, ranks, leaderboards, high-scores, and stars are all examples of achievements which might prove beneficial in this regard (Glover, 2013; McGonigal, 2011; Telaprolu, Rallapalli, Nah, & Venkata, 2013). These variations of extrinsic reward provide students with the opportunity to gauge their progress as well as showcase their accomplishments to others, which can be a powerful motivator (Glover, 2013).

2.1.3 Reinforcement

Achievements are not the sole component designed to reward players in gamification as another important aspect of providing feedback to players is reinforcement. Verbal praise, compliments, as well as tangible and intangible rewards are tools which can also be used to increase student engagement as well as contribute to a safe learning environment, both of which are beneficial to a student's WTC (Zarrinabadi, 2014). Additionally, Ašeriškis & Damaševičius (2017) make an important distinction between the use of negative- and positive feedback. Whereas positive feedback reinforces in the player that their actions and decisions are correct and advocates further behaviour of that nature, negative feedback can assist in steering the player into a different direction but should be used sparingly. An example of gamified negative feedback used to correct student behaviour would be a system of lives. Students lose one of these lives upon failing to complete a certain activity and are tasked to use their next life to approach the problem in a different manner until they have depleted their life-supply at which point it is "game over".

2.1.4 Competition

In an educational context, competition might naturally occur between classmates during group projects yet is difficult to take advantage of. However, competition plays an important role in translating the values of game design into the classroom. Many aspects of gamification such as achievements and reinforcement are extrinsically motivating and, if overused, might lead to students becoming increasingly dependent on these outside stimuli to remain engaged (Lepper, Corpus, & Iyengar, 2005). This dependence could prove detrimental to the development of a student's intrinsic motivation (Glover, 2013). Competition, on the other hand, naturally motivates players intrinsically through intra-player engagement (McGonigal, 2011). This would be

especially beneficial to applications of gamification as it presents an opportunity to evoke a different kind of motivation which could, in turn, prove beneficial to WTC.

2.1.5 Fun orientation

A major reason as to why students enjoy playing games in their free time is that games are simply designed to be as fun as possible. When an experience is fun, “one can become so engaged in the task that one loses track of time” (Telaprolu, Rallapalli, Nah, & Venkata, 2013, p. 101). In order to mimic this experience and register this same benefit in class, it is important that the intervention be seen as fun by the students (Telaprolu, Rallapalli, Nah, & Venkata, 2013). Ašeriškis & Damaševičius (2017) distinguish three different states of mind: boredom, enjoyment, and anxiety. An important precondition for attaining the state of enjoyment is achieving successful suspension of disbelief in students through immersion (Ašeriškis & Damaševičius, 2017). Suspension of disbelief is the ability of a person, in this case students, to accept events or characters as believable, whereas they would ordinarily be surreal. In gaming, suspension of disbelief allows for a player to immerse themselves in fantasy worlds, to hunt dragons, or to roleplay as an all-powerful wizard. When combined with appropriate complexity and appeal, immersion through suspension of disbelief causes students to become absorbed into the gamified lesson and momentarily forget the world, or in this case the classroom, around them (Ašeriškis & Damaševičius, 2017). Allowing students’ minds to experience the same immersion through suspension of disbelief as in gaming, where WTC is greater than in the classroom, might create a link between their gaming experiences and education; therefore positively affecting their WTC in the classroom. Other examples that may contribute to a positive fun orientation are virtual avatars, visuals, music, customization, narrative context, and roleplay (Telaprolu, Rallapalli, Nah, & Venkata, 2013).

2.1.6 Progress tracking

One of the pillars of game design is the ability to let the player track their own progress at any point in the game. The reason behind this can be compared to providing feedback in an educational setting as it offers the player a sense of accomplishment and clear goals for future development (Glover, 2013). Another way this is stressed in education is through learning processes which are used to track student progress (Glover, 2013). Giving students a clear overview of what they have already achieved and what they still have to do in order to progress is beneficial in maintaining engagement and might be made visual in a gamified lesson by adopting progress bars, checkpoints, a quest journal, or an expanding map (Glover, 2013; Kiryakova, Angelova, & Yordanova, 2014).

2.1.7 Storyline-based learning

As game-design has matured, so has it begun to move away from the goal being to compete for the highest score. Nowadays, many games focus more on providing the player with a substantial narrative which they can partially control through their own actions within the game. McGonigal (2011) attests that these narratives are often rated among the most prominent reasons as to why gamers enjoy their hobby to the degree that they do. By immersing students in a similarly crafted experience wherein teacher-guided opportunities for agency are present, teachers have the opportunity to create a motivating and interesting context in which learners themselves have agency in controlling the pace and manner in which learning happens (McGonigal, 2011) which has been previously established to be beneficial to classroom WTC.

2.2 Chosen design criteria

Naturally, all the aforementioned criteria would normally be implemented in the intervention. Due to the current quarantine conditions during the Corona crisis, however, this research unfortunately has elected to omit the inclusion of the competition criterion. Sintermeerten's online teaching infrastructure does not allow for break-out groups and has proven to be impractical regarding the establishing of group work and thus most naturally occurring competition. In order to introduce some semblance of competition, the intervention will contain a proposed deal by the class which stipulates that they be rewarded when they successfully complete the lesson series or in case of failure the reward shall instead be awarded to the teacher. Nevertheless, the inability to properly implement intra-learner competition has led to the criterion being excluded from further exploration.

All other criteria will be implemented into the intervention with express focus on specific practical applications of these interventions as will be outlined below. The lesson series will be made goal-oriented through the introduction of a main objective which will be subdivided into skill-focused tasks which the students have to complete to progress towards reaching the overarching goal. After the completion of a task, the students will receive items and badges indicating their achievements and progress along with verbal positive reinforcement to indicate their positive advancement. A system of lives will be used to provide negative feedback and allows for moments of error-correction. Visuals, music, character creation, and roleplay will be present in order to boost learner agency as well as enjoyment through immersion. The aforementioned items and badges are not the sole features which allow for progress tracking; a game map will be included which reveals all "areas" which the students have discovered and completed. Finally, the lesson series shall take place within a narrative which the students can partially control through the manner in which they resolve the tasks presented to them. Further detail as to the design of the lesson series shall be outlined in the description of the product below.

2.3 Description of the product

The lesson series will be constructed within PowerPoint as the familiarity of the programme to both teacher as well as student should diminish initial confusion regarding the execution of the intervention. Other benefits to using PowerPoint include the programme's ability to support the use of branching paths within a narrative as well as a number of other functionalities which often go unused in traditional PowerPoint presentations such as animation, audio manipulation, macro-enabled textboxes, and transitions. In an initial survey (*Appendix A*) the class reported their preferences regarding video-game genre. The most popular genres proved to be the "adventure games" genre as well as the "horror" genre. The narrative, visuals and music will be tailored to imitate these styles of games with age restrictions in mind and a direct link to English literature will be introduced by adapting the story of Bram Stoker's *Dracula*. All necessary resources needed to construct the PowerPoint will either be created in Photoshop/PowerPoint or retrieved from the internet. The original creators of the art will be acknowledged both during the lessons as well as in the final product. The lesson series shall take place online using the platform Microsoft Teams over the course of three 45-minute skills lessons and will provide the students with additional tasks to be completed as homework. The finished product can be found in the appendices below (*Appendix B*).

Chapter 3: Designing the supporting research

3.1 Research question

Following the literature research phase and the development of the intervention, the aforementioned research question remains similar; however, due to the research's focus on the incongruity between classroom- and non-classroom L2 WTC this distinction should become apparent from the research question:

Before:

“How do students with poor L2 willingness to communicate experience the application of gamification to a lesson series regarding their L2 willingness to communicate in a classroom setting?”

After:

“How do students with poor classroom L2 willingness to communicate experience the application of gamification to a lesson series regarding this L2 willingness to communicate?”

3.2 Experimental group

In order to sufficiently answer this research question, an experimental group will be created of students with poor L2 WTC in the classroom but who have shown greater WTC when spoken to outside a classroom setting. To establish this experimental group, the following criteria have been selected: (i) the student's "attitude grade" which they receive at Sintermeerten for their spoken English production in class should be a 6 or lower, (ii) the student scored average to below average on their presentations and other speaking assessments, (iii) the student's WTC in and outside the classroom is divergent as judged by their two English teachers as well as a pre-research measurement model (*Appendix C*) and (iv) the results of an informal survey (*Appendix A*) conducted by the researcher gauging learner interest in gaming culture and its incorporation into education. To ascertain balanced results, the experimental group will be comprised of students with both positive and negative results from this survey regarding their interest in gaming.

Keeping these criteria in mind, four students have been chosen to participate in the study. During the initial approach they all agreed to be part of this research and its form of data collection. Due to privacy concerns and school regulations, their names will be anonymised.

Name (anonymised)	Gender	Age	Level
Participant 1	Male	13	Mavo bilingual
Participant 2	Male	12	Mavo bilingual
Participant 3	Female	12	Mavo/havo bilingual
Participant 4	Female	12	Mavo bilingual

3.3 Data collection methodology

In seeking to measure classroom L2 WTC, a certain reliance is put on the participants' experiences as the psychological state of "willingness" is difficult to measure (Peng, 2013). A student might have been willing to communicate yet was unable to do so due to various reasons such as: classmates being quicker to speak up, the teacher deciding to move on, or a chance to communicate being altered and their answer no longer being applicable. Consequently, these lost opportunities for communication which do outline WTC would be impossible to record. In order to better incorporate these opportunities into research findings, two different characteristics of WTC were established: trait-like properties and state properties (McCroskey & Baer, 1985). Trait-like WTC is a learner's consistent disposition across multiple situations and opportunities for communication, whereas state WTC refers to a learner's communicative behaviour in specific situations under situational influences (Peng, 2013). By combining the results of research into trait-like and state properties it allows researchers to measure changes in WTC despite its psychological and often undetectable nature (Peng, 2013). Previous research has often adopted one instrument per characteristic to measure participants' WTC. Accepted measurement instruments include questionnaires, stimulated recalls, and interviews. (Peng, 2013)

Reinders & Wattana (2014) have developed two questionnaires which measure development of WTC and Cao & Philip (2006) have conducted semi-structured interviews pertaining to measuring individual learner WTC. By adopting these two instruments, both trait-like and state WTC would be measured. However, since this research does not seek to outline development in WTC or measure individual learner WTC, but rather record learner experiences regarding their WTC during the intervention, certain adaptations to their instruments must be made.

3.3.1 (Reinders & Wattana, 2014)

In their research into the effects of gaming on WTC, Reinders & Wattana (2014) created two questionnaires (*Appendix D*) each measuring WTC in different contexts. Questionnaire A seeks to establish participants WTC in a classroom setting whereas Questionnaire B applies similar questions to WTC in the context of gaming. Both questionnaires were administered at the start of the research as well as after the final gaming session. The questionnaires are divided into two sections: perceived WTC and State Communicative Self-Confidence in order to measure both trait-like and state properties of WTC. Participants were asked to fill in their answers in a 5-point Likert scale anchored with "1 = very unwilling" and "5 = Very willing". The middle value "Neutral" was included to "elicit honest responses from some participants who might not have had experience in or strong feelings about particular communication tasks" (Reinders & Wattana, 2014, p. 106). High values in both sections of these questionnaires were interpreted as high levels of WTC.

These questionnaires provide a strong framework for this research to build upon; however, there are numerous reasons for adaptations. Firstly, this research solely seeks to record participant experience during the lesson series rather than measure changes in WTC occurring due to the intervention. Therefore, this research will not employ Questionnaire A or perform a pre-research measurement. Participants will be asked to complete Questionnaire B after the intervention to share their thoughts on the application of gamification. Secondly, the intervention used by Reinders & Wattana (2014) was the application of an actual videogame named "*Ragnarok Online*" rather than a gamified lesson series. Consequently, several questions in Questionnaire B must be rephrased to account for these differences in intervention. Thirdly, the language used in the explanation of the questionnaire might be too difficult to understand for the participants of this research and should, therefore, be slightly simplified. The adapted questionnaire can be found below Figure 1: adapted from Reinders & Wattana (2014)(*Figure 1*).

Willingness to communicate Questionnaire

This questionnaire has two sections to measure your willingness to communicate in English during the gamified lessons. It should take about 10 minutes to complete. Please answer truthfully to guarantee the success of this study. Your answers will be treated confidentially and only the researcher will have access to the information you provide. Although we ask for your name, we do so only because we want to associate your answers to this questionnaire with your other data. Remember, you are telling the researchers about your experiences during the gamified lessons. There are no right or wrong answers.

Name _____

Gender _____

Section 1: Willingness to Communicate

Instructions: Below you will read a number of different communication tasks which you might find in the gamified lessons. Please to tell me how willing you would be to do each of these in English. By 'willing' I mean 'that you want to do it' so please put an "X" in the box that describes the level of your willingness, using the following scale:

1 = Very unwilling

2 = Somewhat unwilling

3 = Neutral

4 = Somewhat willing

5 = Very willing

Statements	1	2	3	4	5
1. Talk to other students about an assignment.					
2. Communicate ideas, feelings, and opinions.					
3. Ask for clarification when you are confused about a task you must complete.					
4. Read quest description/instructions before you start completing.					
5. Listen to what other students say in English.					

Section 2: State Communicate Self-Confidence

Instructions: I am interested in your anxiety about communication that you feel when communicating in English during a gamified lesson. Put an "X" in the box that represents the degree to which you agree or disagree with each statement, using the following scale:

1 = Strongly disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

Statements	1	2	3	4	5
1. I am not worried about making mistakes.					
2. I find it difficult to communicate in English.					
3. I am worried that I will not understand what other players say in English.					
4. I feel nervous about using English while participating in a gamified lesson.					
5. I can say what I want to say in English.					
6. I think other players cannot understand me because of my poor English.					
7. I feel comfortable sharing my ideas/feelings/opinions with other players.					
8. I know the words required to complete each task.					
9. In general, I find communicating in English in gamified lessons relaxing.					
10. I think participating in gamified lessons helps me develop my fluency (for example with little hesitation and pauses).					

Figure 1: adapted from Reinders & Wattana (2014)

3.3.2 (Cao & Philip, 2006)

Along with various questionnaires, audio recordings, and classroom observations, Cao & Philip (2006) collected data through interviews (*Appendix E*). These interviews were subdivided into three parts: general questions related to antecedents for WTC including motivation, level of anxiety, and perceived competence; stimulated recall questions regarding specific tasks and learner experiences during the completion of said tasks; and individual questions which involved questions based on participant's individual WTC behaviour across various classroom activities. These three types of questions and their particular foci cover both trait-like as well as state properties of WTC and allow for adaptation due to the inclusion of personalized questions.

This clearly structured interview fulfils all requirements for an effective measurement of WTC; however, certain changes are necessary for it to be used in this research. Firstly, various questions are not applicable to this research's focus on learner experiences during the intervention and will be omitted. Secondly, several questions regarding working in separate groups will be removed or, if possible, rephrased to working as one single group in order to adhere to the particulars of intervention. Thirdly, different communication tasks from the lesson series will be inserted into the stimulated recall questions and the question's word order changed accordingly, when necessary. Fourthly, questions about participant personality will be split into personality inside and outside the classroom in order to further gauge disparity in learner WTC in different contexts. Lastly, the personal questions required for part III of the interview will be inserted and can be seen in figure 2.

Part I: General questions

1. What do you think your English level is like? What about your speaking skill in particular?
2. How motivated were you during the gamified lessons?
3. How much did you like learning together with your classmates during these lessons?
4. How would you describe your personality outside the classroom?
5. How would you describe your personality inside the classroom? Is there a difference between your personality during regular and gamified lessons?
6. How competent do you think you were to communicate in English during this course?
7. Did you feel very sure and relaxed in this class?
8. Did you feel confident when you were speaking English in class?
9. Did it embarrass you to volunteer to answer in class?
10. Did you feel that the other students speak English better than you did?
11. Were you afraid that other students would laugh at you when you were speaking English?
12. Did you get nervous when your English teacher asked you a question?
13. Were you afraid that your English teacher would correct every mistake you made?

Part II: Stimulated recall questions

1. Did you like the "Chessboard" task? Why/Why not?
2. How useful for your learning do you think the "Dungeon door" task was? Why/Why not?
3. Did you think you did the "Recipes" task well? Why/Why not?
4. Did you enjoy doing the "Potions" task? Why/Why not?
5. Did you feel happy to work as a class during these tasks? What did you feel happy/unhappy about?
6. Comparing all the tasks you did; which task did you like best? Why?

Part III: Individual questions

Participant 1:

1. During the English lessons it seems like you enjoy thinking outside of the box. Do you think this was easier/more difficult during the gamified lessons? Why?
2. Which role (e.g. decision maker, follower, devil's advocate, timekeeper, etc.) would you say you normally play when working in a group during the English lessons? Is this a different role during gamified lessons?

Participant 2:

1. How motivated would you say you are during regular English lessons? Did that change during the gamified lessons? How does that affect your behaviour in class?
2. In a previous survey you mentioned that you are definitely not afraid to talk English to strangers when you are playing a videogame online. Why do you think that is? Did that same feeling affect your speaking during the gamified lessons?

Participant 3:

1. You were always one of the first to figure out the riddles during the gamified lessons. Why do you think that was? What made these riddles enjoyable to you? What did that do to your motivation?
2. In a previous survey you mentioned that you learnt a lot from gaming. Now that you completed these gamified lessons, do you think that the way you learn in a real game is similar to how you learnt during the gamified lessons? Or is there still a difference? Why/Why not?

Participant 4:

1. In a previous survey you mentioned that you do not really enjoy playing videogames in your free time. Do you feel like this made it more difficult to communicate during these gamified lessons? Why?
2. Was there something that the teacher could have done better in order to make the tasks clearer/more fun to students who do not play videogames that often?

Figure 2: Adapted from Cao & Philip (2006)

3.4 Data collection procedure

During the COVID-19 quarantine, the entirety of Sintermeerten's educational activity takes place on Microsoft Teams. The platform is secured by the school's digital license and has proven reliable and safe. This research will adopt this same infrastructure to conduct its data collection as both the researcher and the participants are familiar with the programme, and its functionalities allow for easy implementation of questionnaires through Google Forms. The questionnaire will be entered in Google Forms and shared to Microsoft Teams directly after the completion of the lesson series and the individual semi-structured interviews will be planned to take place the week after its completion and will be recorded for transcription and further study. All participants have given their consent regarding the use of their interviews for research purposes.

Chapter 4: Results

4.1 Data processing and analysis

4.1.1 Questionnaire

After having performed the questionnaire on Google Forms, the results were transferred into Microsoft Excel and graphs were made using the numerical results from the 5-point Likert scale to help visualise the experimental group's experiences regarding their WTC. Three graphs were generated: the first graph contains the first part of the questionnaire pertaining directly to WTC and high scores were interpreted as a high level of WTC; the second and third graph detail the second part of the questionnaire and both measure State Communicate Self-Confidence as a condition for WTC. However, due to a discrepancy between various questions regarding their scoring related to level of WTC, a distinction had to be made. Graph 2 contains the questions where a high score equals high WTC and Graph 3 is comprised of the questions where low scores are interpreted as high WTC.

4.1.2 Interviews

The interviews with the experimental group were conducted on the 21st of May on Microsoft Teams. Each participant was posed the same questions during parts I and II, and two personalized questions during part III. The proceedings were recorded with explicit consent and transcribed in the days following the interview (*Appendix F*). Various markers concerning WTC and gamification were chosen from the literature research in order to classify the participants' utterances regarding their experiences with WTC during the gamified lessons. For quantifying WTC, the markers were as follows: Familiar Topic, Perceived L2 Competence, Stress-free interaction in L2, Agency, and Engagement. In order to outline the effects of gamification, different markers were adopted, namely: Goal Orientation, Achievement, Reinforcement, Fun orientation, Progress Tracking, and Storyline-based Learning. The transcribed interviews were reviewed for utterances pertaining to the two sets of markers. The utterances were inserted into separate tables in Microsoft Excel containing positive, neutral, and negative quotes from the interview (*Appendix G & Appendix H*). Firstly, these tables were summarized (*Table 1 & Table 2*). Secondly, these tables were further reviewed and quantified resulting in the numerical amount of positive, neutral, and negative phrases per participant. These quantified results were then visualized into graphs and combined to create figures 6 until 15.

4.2 Overview and results

4.2.1 Results questionnaire

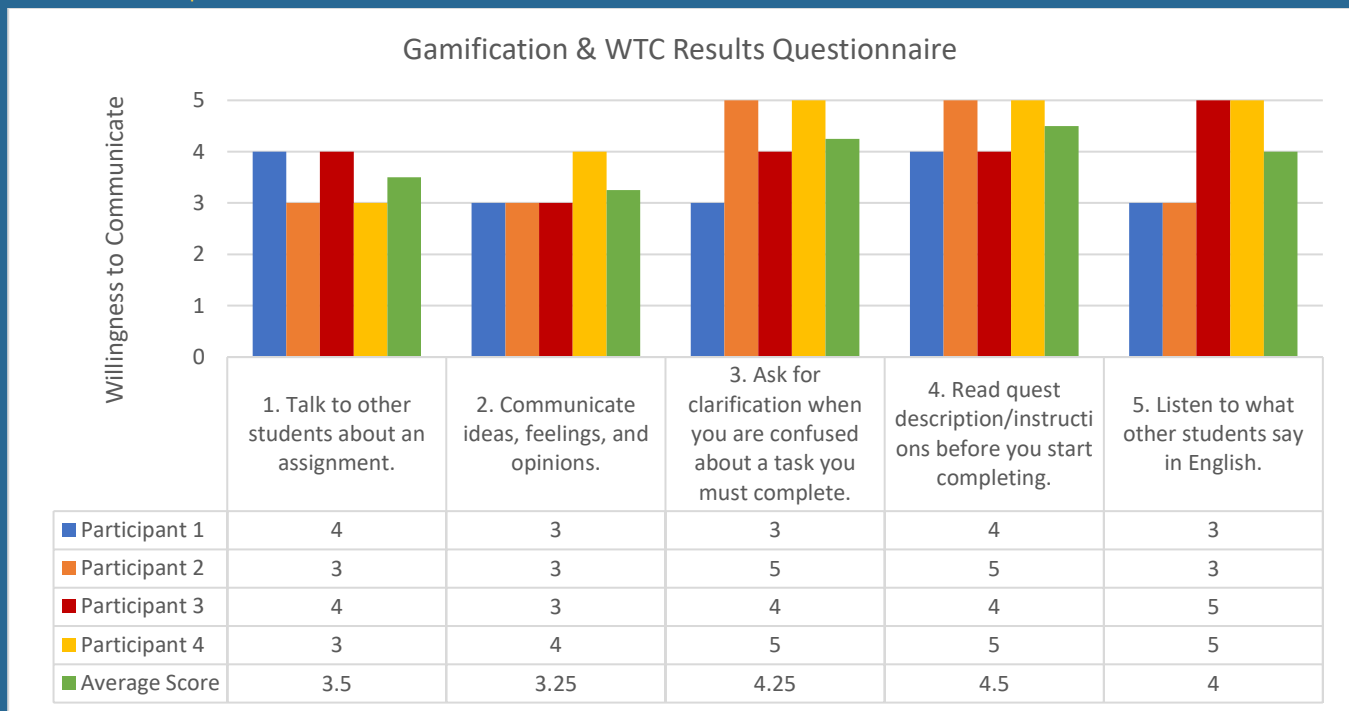


Figure 3

According to the results of the first set of questions, the participants experienced a moderate to very strong level of WTC during the gamified lesson series. WTC was shown to be lowest when asked to freely communicate ideas, feelings, and opinions which most participants were neutral about. Talking to other students about the various assignments in the intervention also scored moderately. However, the other categories showed strong levels of WTC during the intervention, scoring positive to very positive.

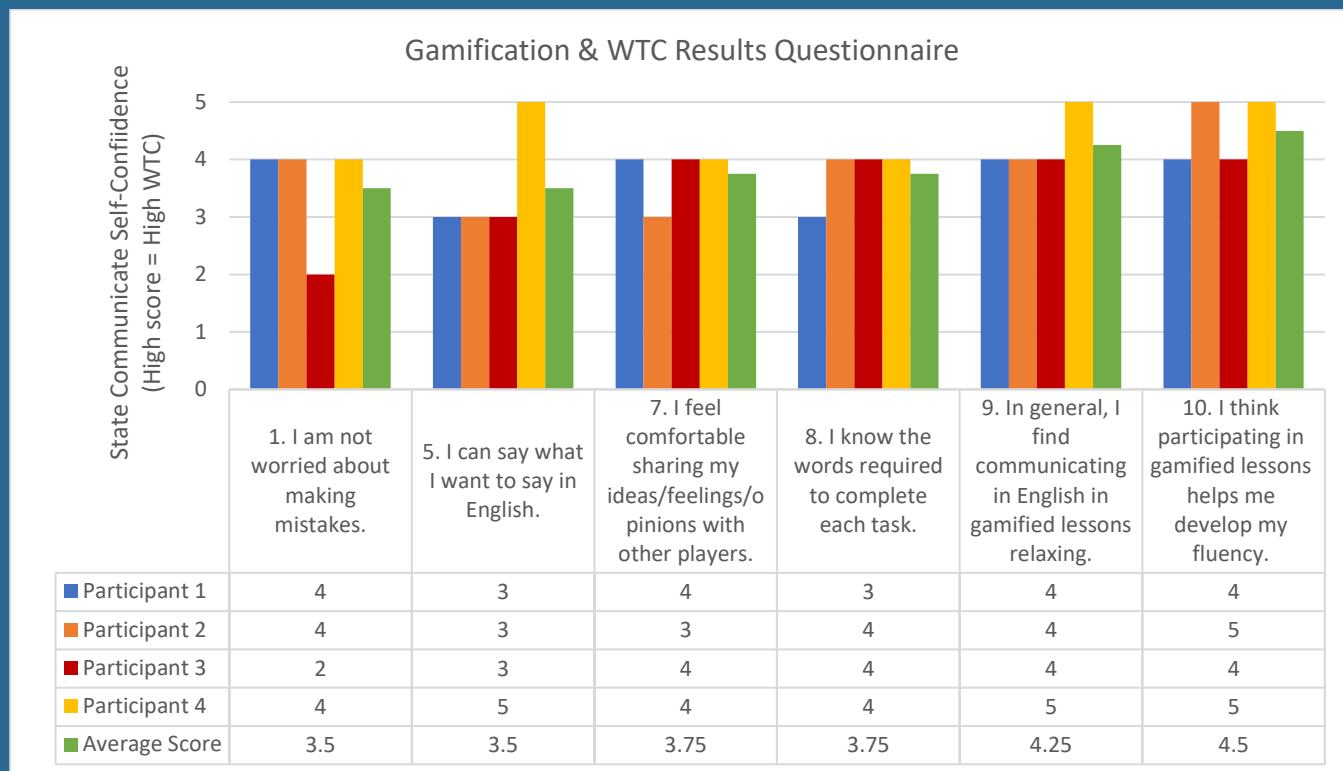


Figure 4

This graph contains the questions from the second part of the questionnaire in which a high Likert-score indicates high levels of WTC as measured by State Communicate Self-Confidence. Participants reported moderate to very strong levels of WTC according to these results. Participant 3 was particularly worried about making mistakes, whereas the others expressed no issues in this regard. However, most participants experienced a moderate difficulty in the category “I can say what I want to say in English”. The other categories outline strong to very strong WTC with participants highlighting the benefits of the intervention regarding their fluency.

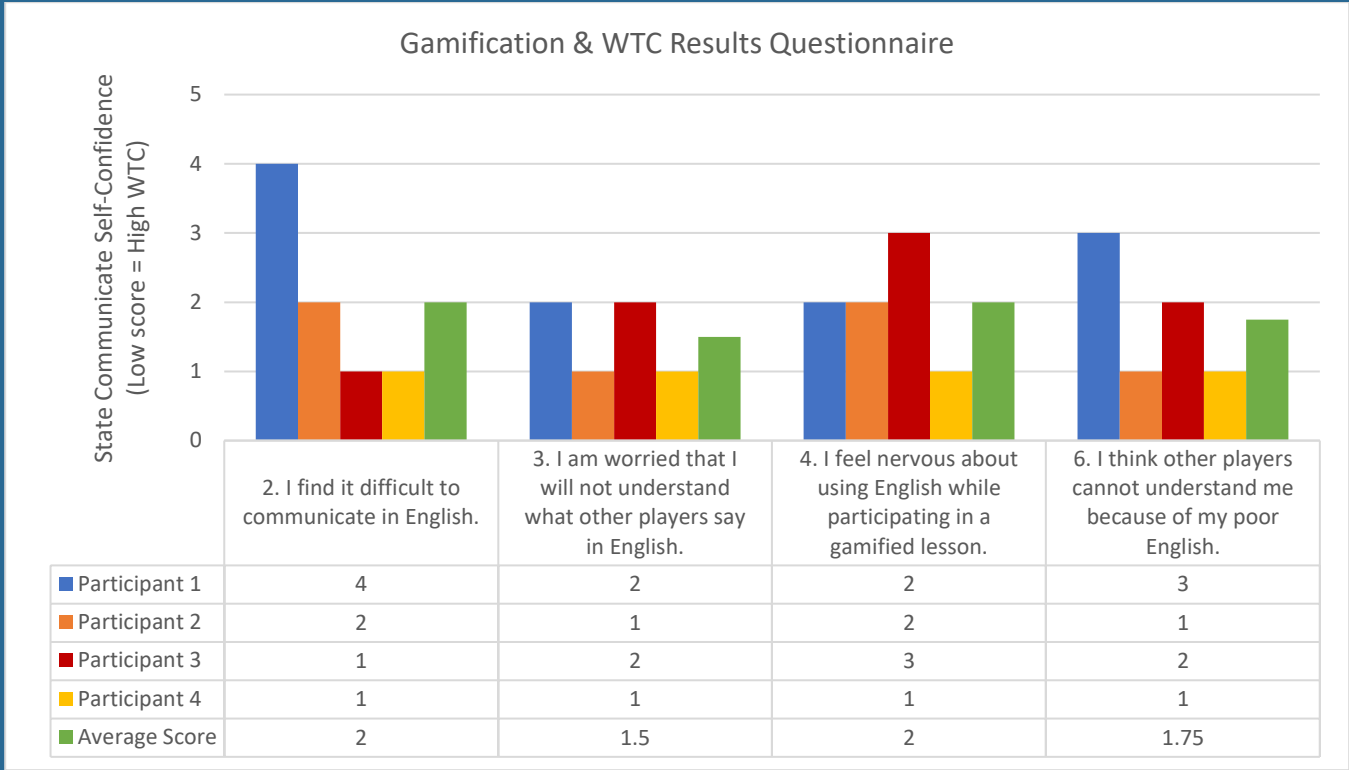


Figure 5

This graph contains the questions from the second part of the questionnaire in which a low Likert-score indicates high levels of WTC as measured by State Communicate Self-Confidence. According to these results, participants experienced strong to very strong levels of WTC on average during the gamified lesson series. Participant 1 expressed difficulties with communicating in English during the intervention, however, which indicates a lower level of WTC. Nevertheless, all categories delineate high mean levels of WTC.

4.2.2 Results interviews

4.2.2.1 Summarized interviews

The two tables below show the summarized interviews derived from the original transcriptions (*Appendix F*) and subsequent classification by means of the aforementioned markers (*Appendix G & Appendix H*). The participants' utterances were summarized in tables 1&2 according to their relevant marker.

Summarized interviews according to WTC markers				
	Participant 1	Participant 2	Participant 3	Participant 4
Familiar Topic	<p>Positive: Felt more like a leader than during normal lessons due to previous experience with videogames.</p>	<p>Positive: Was more motivated and confident due to previous experience with videogames. They enjoyed the combination of school and games.</p>	<p>Positive: Enjoys doing riddles and puzzles in her spare time. They felt that this experience helped them during the intervention. They also felt that there were similarities between learning from videogames and the intervention.</p>	<p>Positive: Despite not playing videogames often, they enjoyed the intervention. They expressed that the focus on riddles was not like ordinary videogames and, therefore, liked it better.</p>
Perceived L2 Competence	<p>Neutral: Found speaking during the intervention to be slightly easier for them and thought their English to be good enough for everyone to understand.</p> <p>Negative: Feels that their speaking skills are lacking and finds it difficult to speak English. Other students are sometimes better in Participant 1's eyes.</p>	<p>Positive: Experienced high perceived competence during the recipes task.</p> <p>Neutral: Thinks they have a good vocabulary, but their pronunciation could be better. Speaking is alright but they need to be reminded not to switch to Dutch or use Dutch mannerisms. Other students are alright and around the same level as they are.</p>	<p>Positive: Has an above average perceived L2 competence due to bilingual education and watching YouTube videos and expresses high confidence due to their love of learning English.</p> <p>Neutral: Expresses that they are around the average level regarding pronunciation and accent. Their speaking skills are alright, but writing is better. They really enjoy riddles and felt competent during them.</p>	<p>Neutral: Believes they are average but good at listening to others. They are not really sure if their speaking is good. During the tasks they were quite quick, but it took some time to figure them out and to build up confidence.</p>

<p>Stress-free interaction in L2</p>	<p>Positive: Felt more relaxed during the intervention than during regular lessons. Speaking was less strange as well because they felt more confident to use their own words. They felt no anxiety due to the class or teacher during the intervention.</p>	<p>Positive: They enjoyed talking in one big group and felt more relaxed than normal. They felt confident and not embarrassed to speak at all.</p> <p>Negative: Some tasks took too long due to working as one group which led to some irritation.</p>	<p>Positive: Enjoys working in a team and feels that you learn a lot from others. The visuals and PowerPoint helped them relax. They are only slightly embarrassed if their answer turns out to be incorrect but are never scared to raise their hand. They were less nervous about this during the intervention than during regular lessons.</p>	<p>Positive: Enjoyed that everyone worked together because then you do not feel so alone. They liked that the intervention was less strict than normal lessons which allowed them to be their self. They were very relaxed and confident because there was no rush to finish everything like a chapter in the book and they felt that they could do everything without overthinking it.</p>
<p>Agency</p>	<p>Positive: Enjoyed the opportunity for choices with consequences. This excitement coupled with a narrative allowed them to think outside the box which is something they enjoy.</p>	<p>Not mentioned</p>	<p>Not mentioned</p>	<p>Positive: They enjoyed creating a character and their name.</p>
<p>Engagement</p>	<p>Positive: Felt motivated and though the intervention to be fun. They enjoyed the challenge and the riddles, especially the chessboard and potions tasks.</p>	<p>Positive: Enjoys the gamification lessons and was very motivated. Compared to normal lessons this was much more enjoyable to them and especially liked the story.</p> <p>Neutral: The potions task took them from room to room. They felt this made it a little less fun and distracted from the assignment.</p>	<p>Positive: They felt really motivated because it had a lot of riddles and still helped them a lot with their English. They felt more active than in a normal lesson due to less writing and more of a story and lots of visuals. All the challenging tasks were the most fun and felt that they wanted to do more activities because they were good at them.</p>	<p>Positive: They thought it was easier to pay attention because it is fun to do. They enjoyed the tasks which gave them something to do at home during the current quarantine. The challenge and amount of activities was something they highlighted as really enjoyable and it made them feel smart.</p>

Table 1

Summarized interviews according to gamification markers				
	Participant 1	Participant 2	Participant 3	Participant 4
Goal orientation	Positive: They enjoyed the goal of defeating Dracula and the choices they could make in how they would go about this.	Positive: Felt that the goal was good for getting everybody to listen to each other, despite that sometimes being difficult.	Not mentioned	Not mentioned
Achievement	Not mentioned	Not mentioned	Not mentioned	Neutral: They thought that the items and other things they found were cool, but it was often too difficult to figure out what to do with them.
Reinforcement	Positive: Did not mind teacher correction and welcomes it because they did not want to develop bad habits.	Positive: They did not mind the reinforcement during the intervention because the feedback was often positive, and they were free to do it in their own way. They do feel that teachers often correct mistakes too often which can be demotivating.	Positive: Felt that the teacher listened to them and that he only corrects them when necessary.	Positive: Was happy with the reinforcement because they feel they learn from it. They went on to say that good feedback alone is not enough and that it was good that there was negative feedback during the intervention as well.
Fun orientation	Positive: They found the intervention to be really fun. The riddles and the tension they brought due to the risk of losing a life made it much more interesting.	Positive: Liked to get away from the book and was enthusiastic and happy during the intervention. They even wanted to continue after the lesson was over, which never happens during regular classes according to them. Neutral: One activity could have been more fun if it were applied a little differently. However, it was still pretty fun as it was now.	Positive: Enjoyed the intervention a lot and liked the combination of gaming and learning English. The riddles were especially fun as they were engaging and really made you think. The visuals and PowerPoint also really helped with their enjoyment of the gamified lessons.	Positive: Due to the intervention being more fun it was easier for them to pay attention. The combination of English and riddles was really enjoyable and gave them lots of small things to do during the quarantine.
Progress tracking	Positive: Enjoyed the look of the intervention as well as the map that shows your progress because that is something you would find in a real game as well.	Not mentioned	Not mentioned	Positive: Enjoyed the automatically updating map which they could always look at because it showed them their progress and their objectives.
Storyline-based learning	Positive: They really enjoyed the story because they got to make so many choices which influenced the story. This story made it easier for them to think outside the box.	Positive: They enjoyed the story a lot and the end-goal of defeating Dracula.	Positive: Enjoyed the story and the different rooms to explore. The visuals helped them relax and focus on the lessons.	Not mentioned.

Table 2

4.2.2.2 WTC markers results

Visualized underneath is the numerical amount of positive, neutral, and negative remarks made about the adopted markers. The figures are divided into the markers for WTC (figures 6-10) and the markers for gamification (figures 11-15).

Participants reported high levels of WTC according to the responses to the adopted markers. “Stress-free interaction in the L2” and “engagement” were highlighted, with participants reporting over twenty positive statements for each of the markers. “Agency” was mentioned the least, with participants 2&3 having not mentioned agency at all during their interviews. Participant 1, however, showed enthusiasm for the amount of agency during the intervention. “Perceived L2 competence”, with the most neutral or negative responses of all markers, outlined moderate levels of WTC as expressed by the participants. Participant 1 voiced mixed experiences regarding their L2 competence during the gamified lesson series, indicating lower levels of WTC.

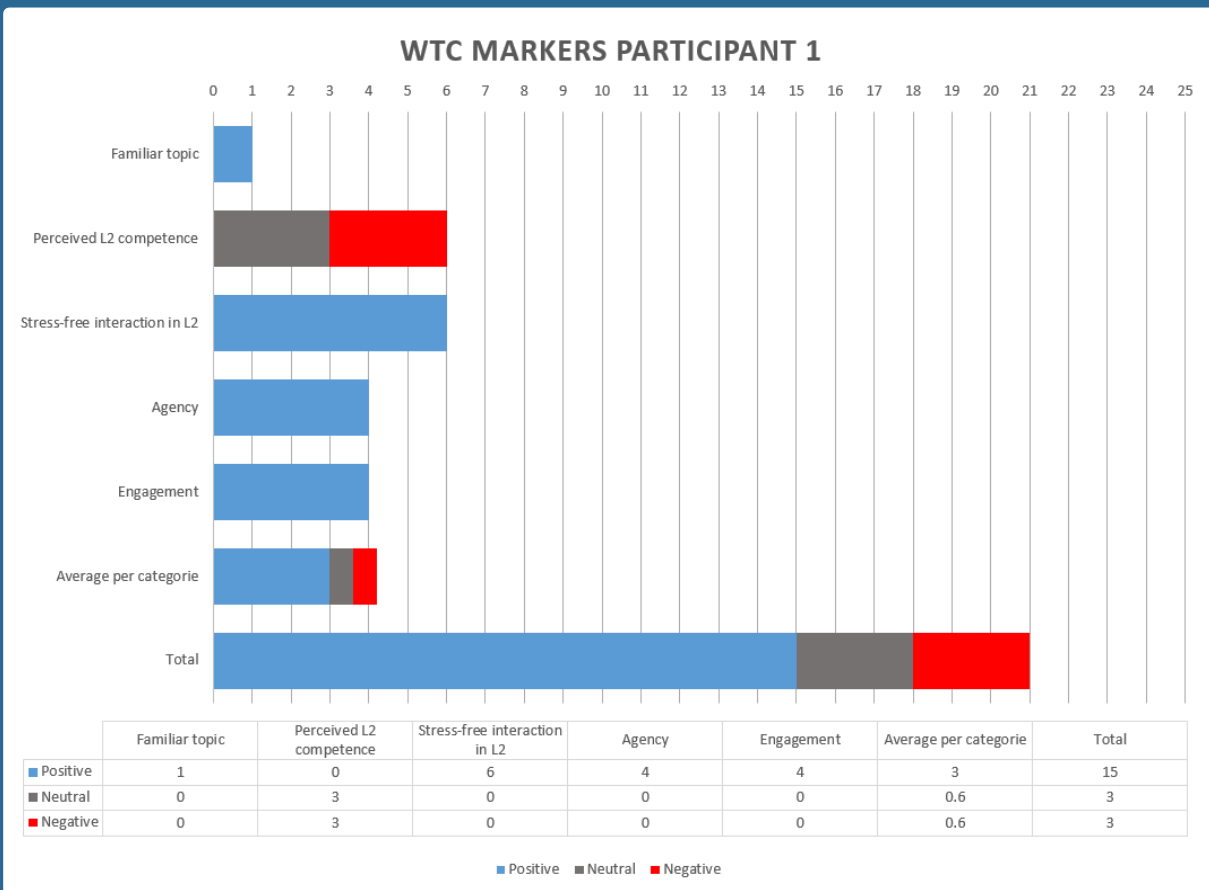


Figure 6

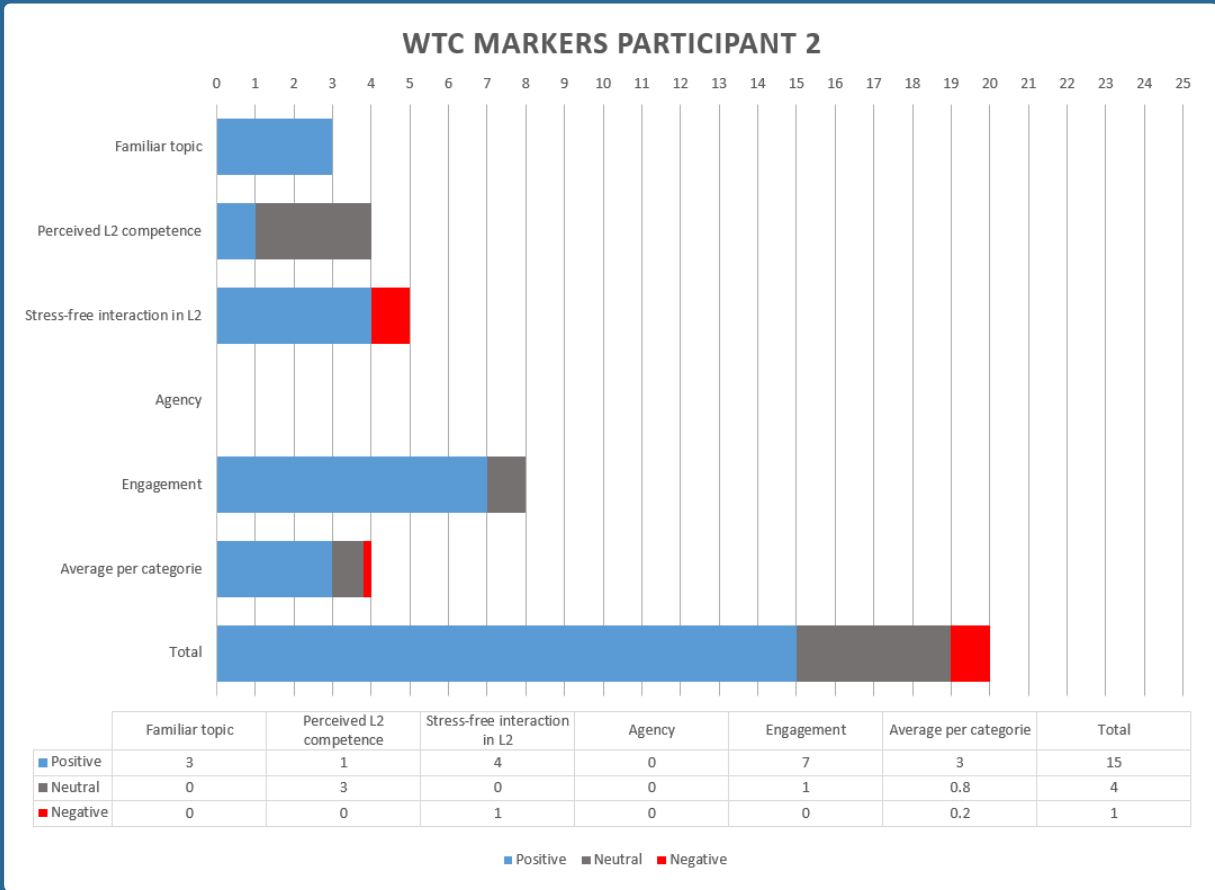


Figure 7

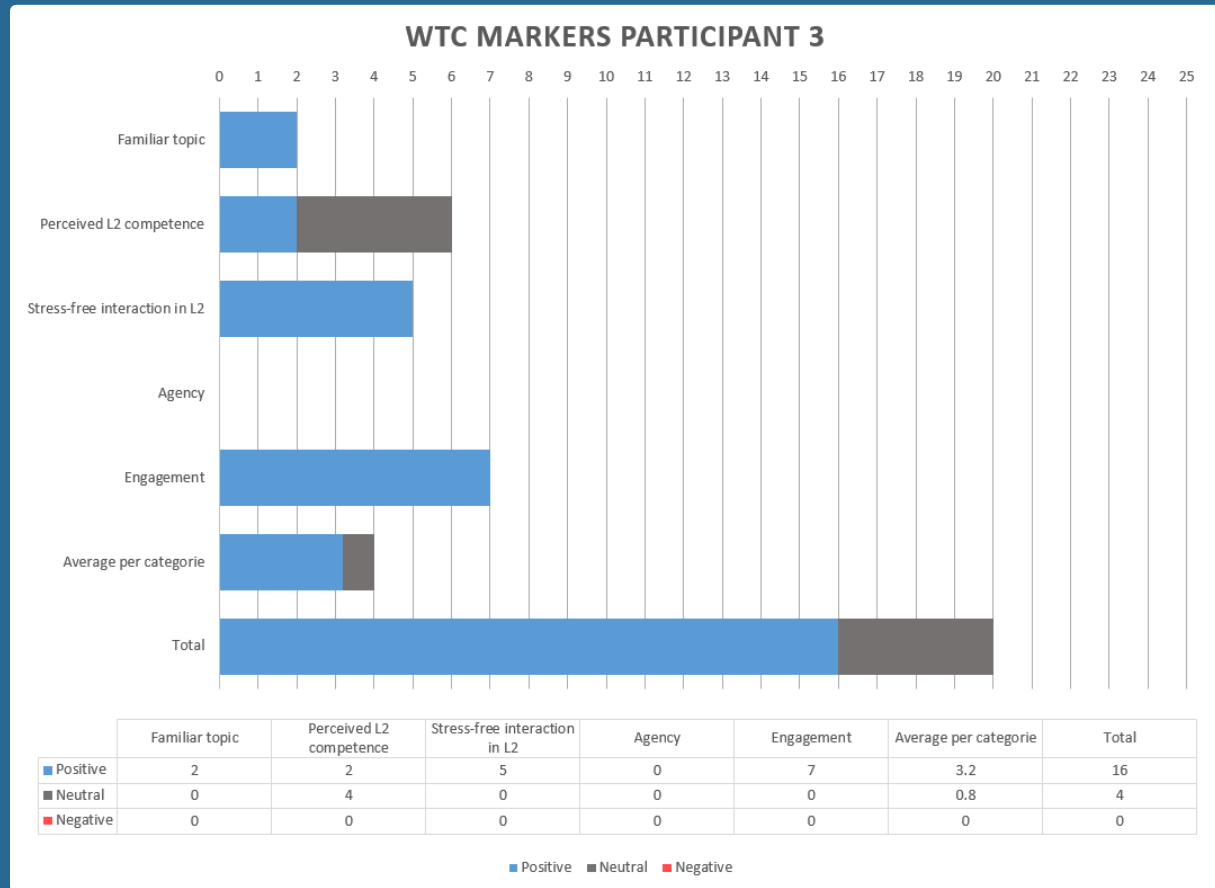


Figure 8

WTC MARKERS PARTICIPANT 4

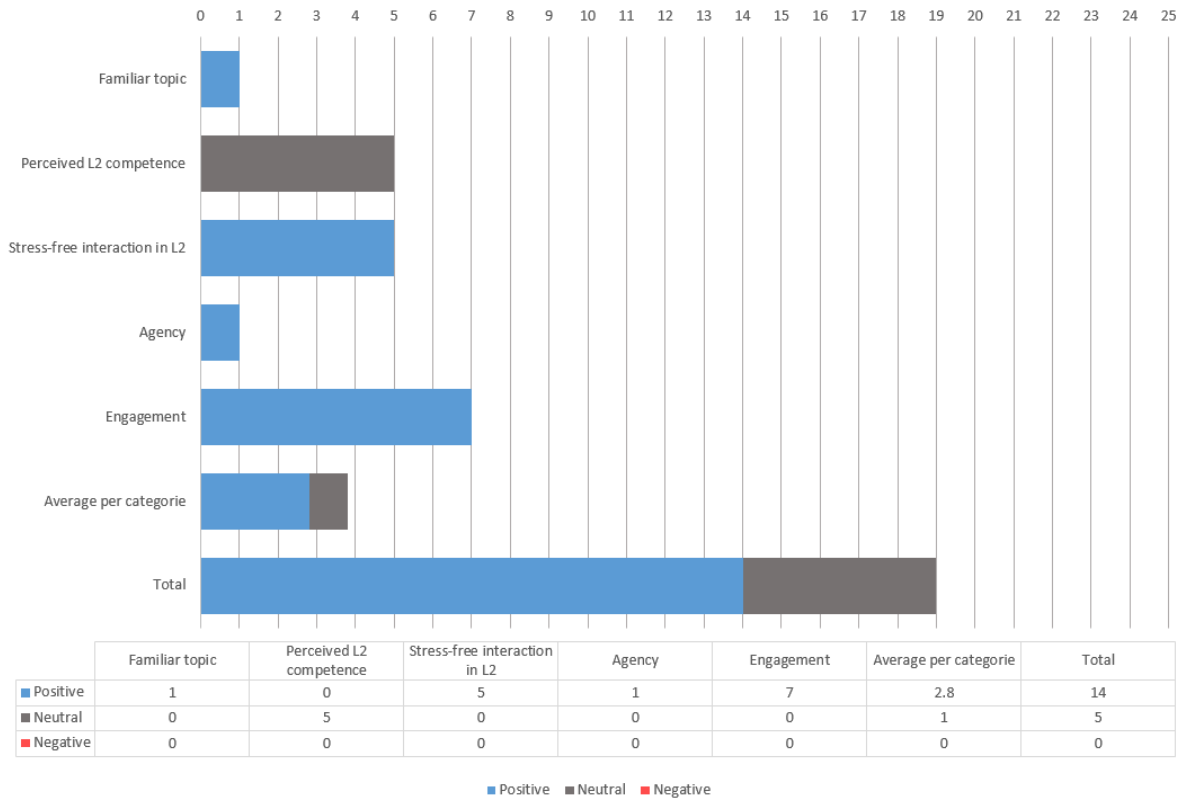


Figure 9

WTC MARKERS ALL PARTICIPANTS

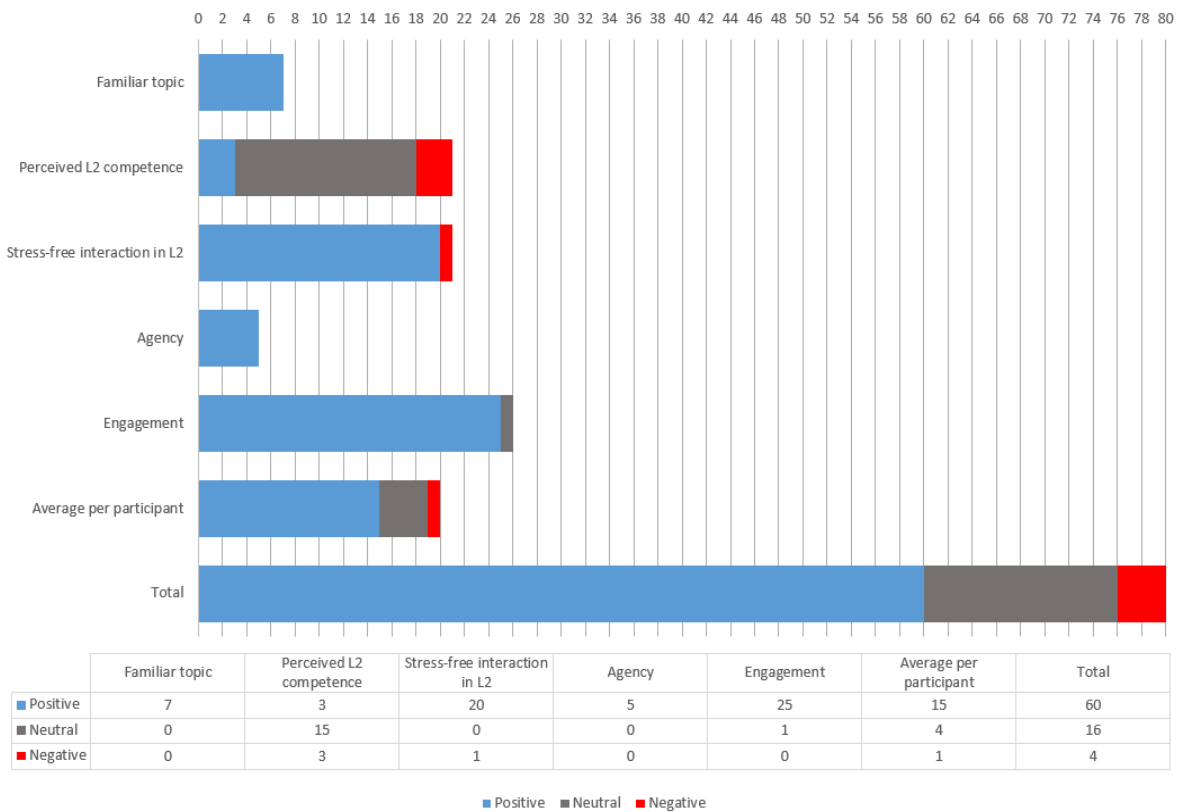


Figure 10

4.2.2.3 Gamification markers results

The adopted markers for gamification demonstrate positive participant experiences with the implementation of gamification to the lesson series. “Fun-orientation” was mentioned the most with over 20 positive responses. “Storyline-based learning” was also mentioned positively as most participant appreciated the story elements and the accompanying visuals. The other markers were mentioned less. “Achievement” was mentioned the least with only one neutral response and, whereas positive, both “progress tracking” and “goal orientation” received only two responses each. Nevertheless, the responses to most markers were very positive indicating a general appreciation for the use of various aspects of gamification during the intervention.

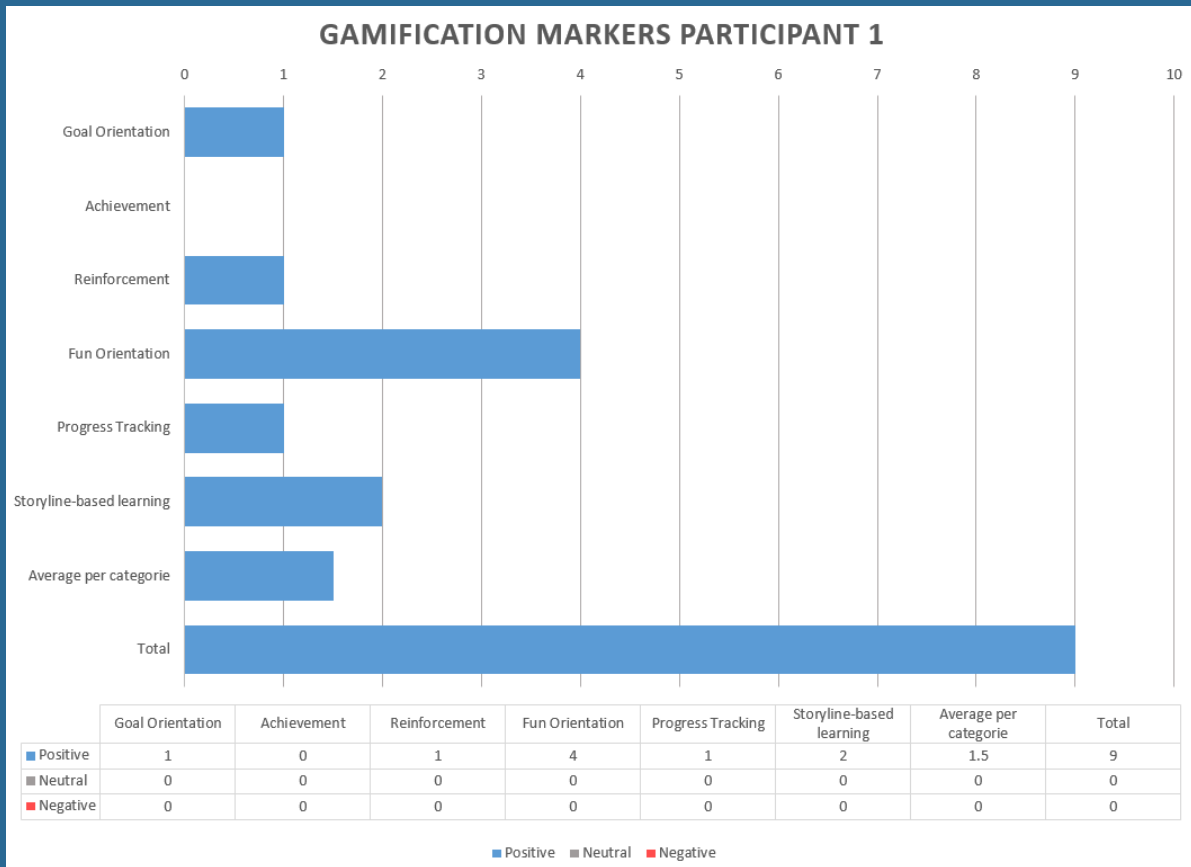


Figure 11

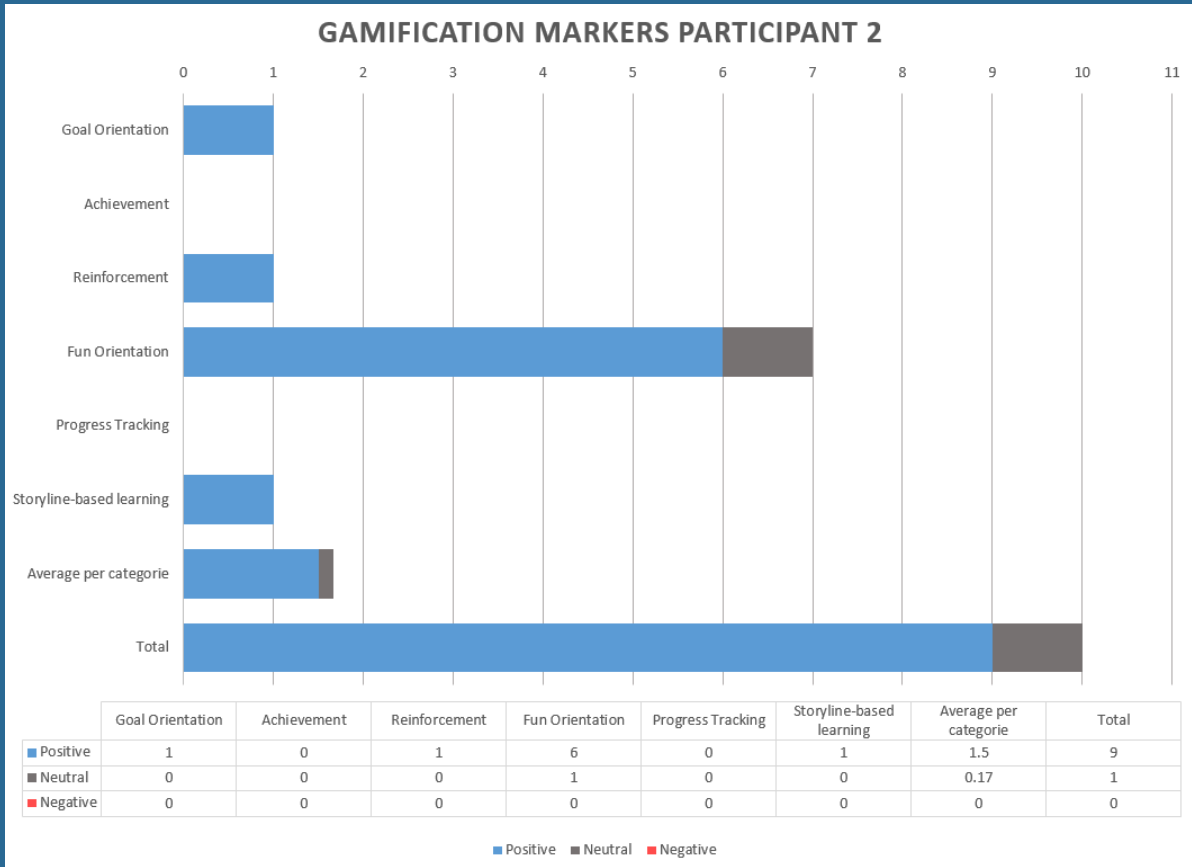


Figure 13

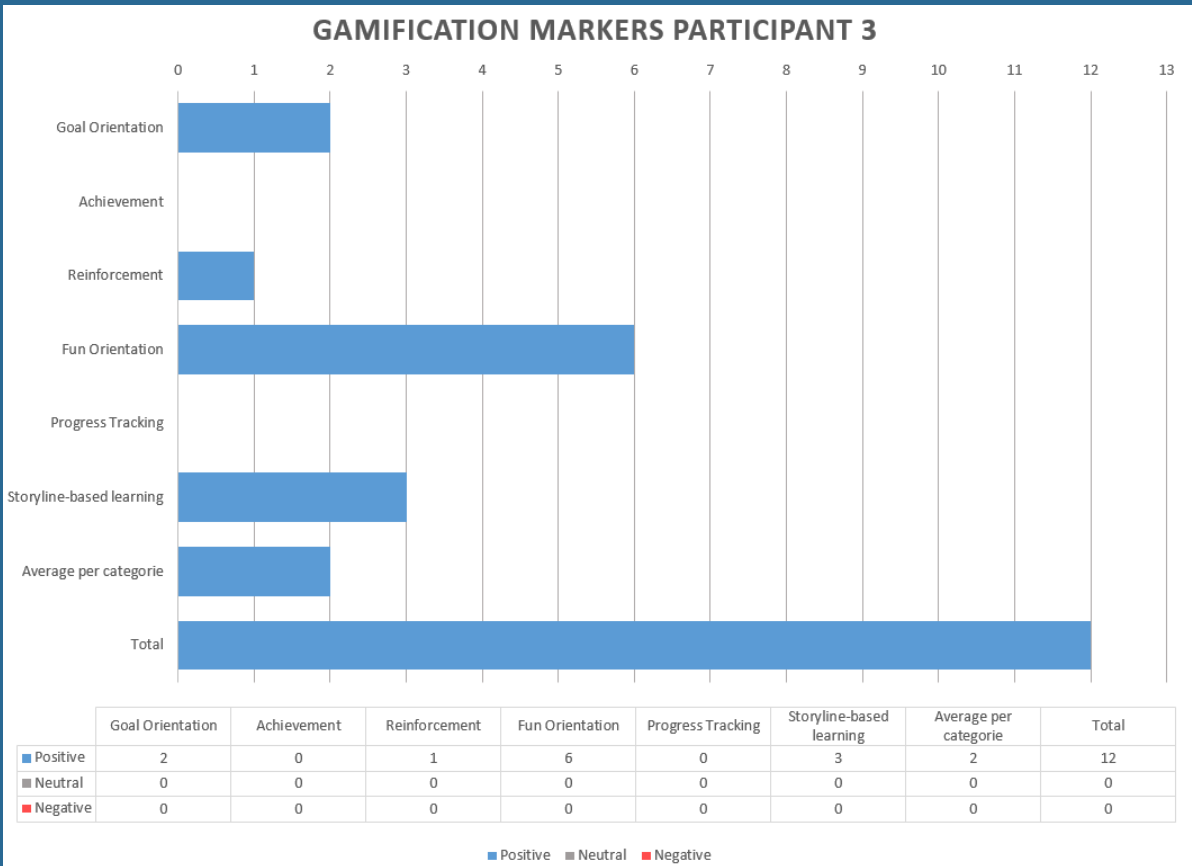


Figure 12

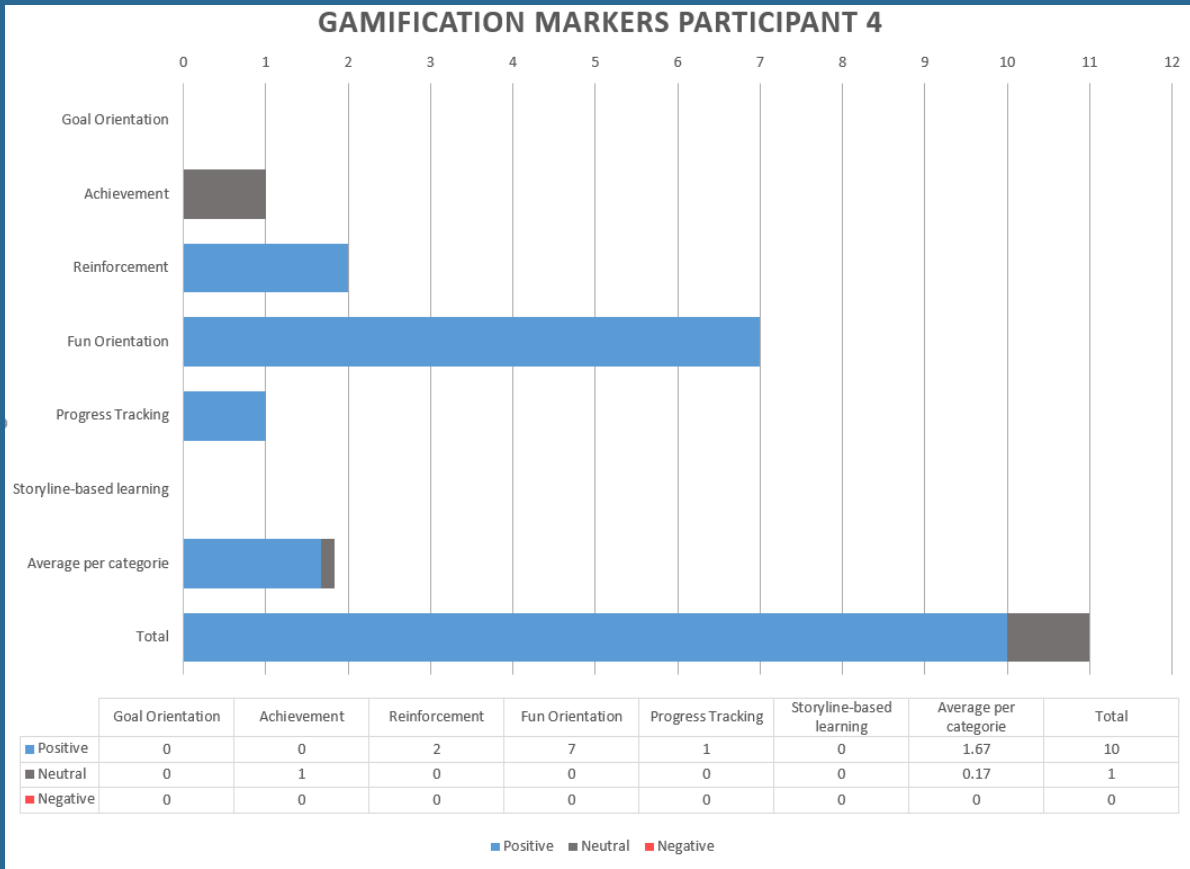


Figure 15

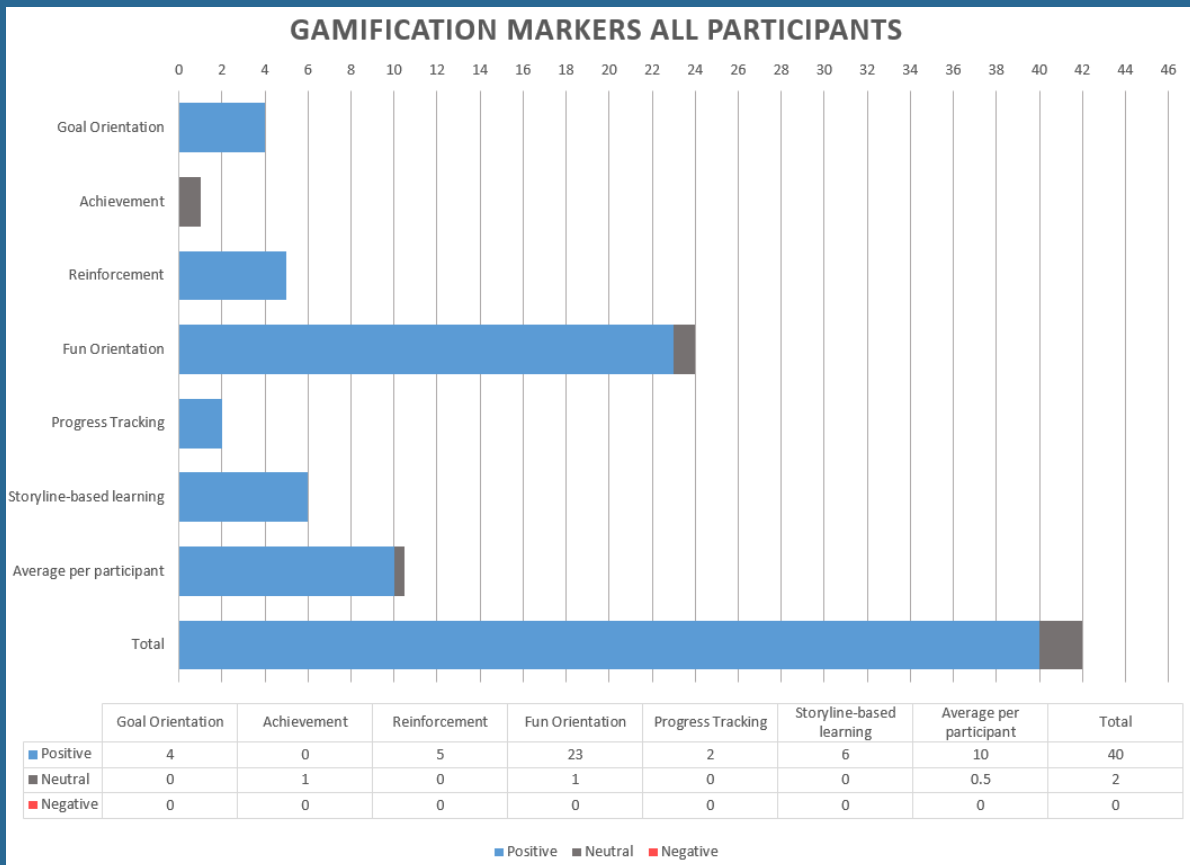


Figure 14

Chapter 5: Conclusion and recommendations

5.1 Summary context and research question

This research was conducted at the Sintermeertencollege, a Dutch secondary school located in the city of Heerlen. Well-known for their bilingual programmes, Sintermeerten's English curriculum for these classes employs a substantial skills programme in order for the students to feel comfortable communicating in the English language. The participants in this research were chosen from one such bilingual group at Sintermeerten, namely their pilot bilingual mavo class B1JT. In this class, it was observed that many students find it difficult or are not willing to communicate in the classroom in the L2 whereas this issue was less apparent when talking outside the classroom or about familiar topics. Many students gladly shared stories about their hobbies and interests, chief among them being the video games they enjoyed playing in their free time. When pressed, these students expressed the ease at which they spoke English with friends and strangers in these online video games. Therefore, in hopes of achieving similar WTC in the classroom, this research sought to employ numerous gamification strategies. Consequently, the following research question was formulated:

“How do students with poor classroom L2 willingness to communicate experience the application of gamification to a lesson series regarding this L2 willingness to communicate?”

5.2 Answering research question

5.2.1 Discussion and conclusion

The results of the data analysis outline a generally positive disposition regarding the effects of gamification on WTC in the participants from B1JT. The participants' answers to the questionnaire outlined a moderate to very high level of WTC which was echoed during the interviews. In both forms of data analysis, participants scored perceived L2 competence the lowest in terms of WTC. In the questionnaire participants noted that it was moderately difficult to say what they wanted to say in the L2 and that they were sometimes scared to make mistakes which was further stressed during the interviews where participants were neutral about their competence in the L2. However, due to the various criteria for participating in this research requiring low classroom WTC, the scores for perceived L2 confidence might have been negatively skewed from the outset. A highlight of the intervention was the participants' reports of high engagement and motivation during the gamified lesson series. Learning was more relaxed, more challenging, more enjoyable, and the participants felt more confident to communicate during the lesson series than they would during regular lessons. Nevertheless, these positive results might have been distorted due to participants simply enjoying the novelty which accompanies a new teaching method. However, numerous gamified lesson series were taught in class B1JT prior to the intervention and they had thus been accustomed to the practice for some time. Based on the aforementioned results of the data analysis, the research question can be answered at this point; all four participants reported mean positive experiences regarding WTC during the intervention and highlighted enjoyment and usefulness of the application of various aspects of gamification.

These results have emphasized to the researcher the importance of personalised teaching and the learners' need for clarity regarding the usefulness of their studies in terms of applicability to familiar topics, contexts, and situations. The familiar topic of gaming is but one of many opportunities for improving classroom WTC which learners often present in casual conversation. All participants expressed positive feelings towards solving riddles and puzzles, stressing their enjoyment of challenge and creative thinking. During regular coursebook lessons there is often little opportunity for this, which is a shame. Gamification's roots in game design provide a much stronger foundation for these types of activities as they arise more naturally as part of a narrative or due to a focus on problem-solving skills. Moreover, gamification as a tool for growing WTC, improving engagement, providing enjoyment, and instilling confidence has proven to be useful and easily implemented once the necessary skills were acquired by the researcher.

5.2.2 Literary context

The results of the research seem to affirm the expectations outlined in the literary research (see chapter two) as participant responses are in line with results from various studies into WTC and gamification. As the effects of gamification in education and its correlation regarding improved WTC are still fairly modern points of research, the number of studies directly in support or in refutation of this thesis is limited. However, various studies have been conducted supporting positive effects of gamification on motivation and engagement which are important preconditions for WTC. These and other key markers for WTC will be considered viable regarding establishing literary support for this study.

Reinders & Wattana (2014) performed a study on the effects of gaming on WTC and adopted similar strategies for data collection. Participants took part in a series of lessons within the game "Ragnarok Online" and were asked to report on their perceived WTC during the intervention by means of the same questionnaire as adopted in this research. The results from that questionnaire mirror those of this research; participants reported positive State Communicate Self-Confidence during the intervention which, in turn, reflected high levels of WTC. Anxiety among participants was low, communication was relaxing, and they were not nervous about using English. Participants in both studies share the feeling that the intervention benefitted their fluency development. One key difference can be observed between the two studies, however. Participants reported that they were not afraid of making mistakes in Reinders & Wattana (2014), which is not wholly reflected in the results from this study in which participants reported neutral responses regarding that same marker.

Another study interested in the effects of gamification in education was Anyaegbu, Ting & Li (2012). With a focus on motivation through feeling of fun, collaboration, encouragement, problem solving ability, and a good learning environment, Anyaegbu, Ting & Li (2012) shares many key markers with this study. Conducted in Chinese primary education, participants took part in lessons featuring the serious game "Mingoville" as its gamified intervention. Serious games are games developed with a primary function other than pure entertainment and attempt to blend this function with particular aspects of games for entertainment, a goal closely resembling that of this research. The researchers asked participants to report on their motivation during gameplay of "Mingoville" in interviews whose results resemble those of this research in many ways. The majority of participants in both studies recorded positive effect to their motivation during the intervention. The gamified material was fun and engaging according to participants, increased intra-learner collaboration was valued highly, strong encouragement and reinforcement led to a safe learning environment, and participants reported higher levels of engagement due to the challenge of problem-solving activities.

5.3 Implications & recommendations

Due to the affirmation of the aforementioned benefits of gamification, the researcher is incredibly interested in further development of gamified lesson series. The current intervention has proven to be useful to learners and it has a clear structure and goals for teachers to apply to the classroom. In terms of activities, the product was successful in achieving its goals, and the degree of challenge was appropriate for its intended audience. Various colleagues have expressed interest in the lesson series and have inquired about the process of creating and teaching a gamified lesson. Nevertheless, when informed of the amount of time and detail that was put into this product they grow hesitant. It would, therefore, be interesting to conduct further experimentation into less time-consuming or simpler ways of implementing gamification to the classroom. For those interested in adopting similar strategies as this research, however, I would recommend putting a strong emphasis on story-telling and encouraging learner immersion in the story. Using voices, body-language, props, and music to draw learners in as well as giving students a clear goal to work towards were all aspects of the intervention which were highly praised by the participants. Using PowerPoint has shown to be invaluable as the opportunities for implementing visuals, music, and especially branching story points proved hassle-free. The ubiquity of the programme also makes it incredibly simple to share the product with colleagues and for it to be presentable on basically any computer.

Due to the ongoing global COVID-19 crisis, schools in The Netherlands provided online education as school buildings were closed. This research was therefore conducted online which did offer various complications. Competition and teamwork are highly regarded aspects of gamification as it introduces an element of intrinsic motivation. Due to the circumstances, the former proved almost impossible as flexible groupwork could not take place. A higher emphasis was therefore put on teamwork which was highlighted as positive by some participants and neutral by others. It would have been interesting to see whether the influence of competition on WTC would have proven positive as well.

5.4 Reflection

During the research I believe to have highlighted several positive aspects of gamification in an original manner. By applying gamification to a series of lessons, rather than focusing on gamifying entire curricula, it has become much less intimidating to discuss and put into practice. Creating the research product and finding innovative ways to structure language teaching within the constructed context and narrative, has further outlined my preference for creative and problem-based teaching. It has also reaffirmed my perfectionism and stubbornness regarding meeting my personal high standards, which have often lead to moments of frustration and time constraint. This continues to be an issue that I will have to address in the future. Nevertheless, I believe the final product's quality to be self-evident which provides me with a strong sense of accomplishment. Whereas the realities of online teaching have prevented fellow teachers from applying the research product to their teaching, many have expressed their wishes to do so once the schools reopen. The participants too have expressed positive feelings about the research product and the various phases of the research process and have frequently commented on their enjoyment of being part of the proceedings.

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Appendices

Appendix A: Informal survey gauging learner interest in gaming culture and genre

The effect of gamification on classroom willingness to communicate – pre-research survey

Name: _____

Age: _____

1. I enjoy playing games in my free time

Not at all 1 2 3 4 5 Very much

2. I play games with friends in real life.

Not at all 1 2 3 4 5 Very much

3. I play games with friends online.

Not at all 1 2 3 4 5 Very much

4. I play games online with people I do not know through the internet or services such as Xbox live/PlayStation Network.

Not at all 1 2 3 4 5 Very much

5. When I play games online with people I do not know, I speak English.

Not at all 1 2 3 4 5 Very much

6. I am scared to talk with people I do not know when playing online.

Not at all 1 2 3 4 5 Very much

7. I am good at gaming.

Not at all 1 2 3 4 5 Very much

8. I am a competitive person.

Not at all 1 2 3 4 5 Very much

9. I like talking about games with others.

Not at all 1 2 3 4 5 Very much

10. I like other media about games. (Television shows, films, books, etc.)

Not at all 1 2 3 4 5 Very much

11. I think gaming can be good for people.

Not at all 1 2 3 4 5 Very much

12. I have learnt a lot from gaming.

Not at all 1 2 3 4 5 Very much

13. When I play a game, I am motivated.

Not at all 1 2 3 4 5 Very much

14. When I play a game, I play to win.

Not at all 1 2 3 4 5 Very much

15. When I play a game, I play to have fun.

Not at all 1 2 3 4 5 Very much

16. I would enjoy lessons about gaming or lessons with gaming elements (lives, highscores, achievements, badges, story, character creation, etc.)

Not at all 1 2 3 4 5 Very much

17. I spend this much time per day on gaming:

- A) 1 hour or less
- B) 1-2 hours
- C) 3-4 hours
- D) 5-6 hours
- E) 7+ hours

18. What is the most important aspect of a videogame?

- A) Visuals (Graphics/looks)
- B) Story
- C) Gameplay
- D) Framerate (frames per second)
- E) Multiplayer
- F) Cosmetics
- G) An active online community

19. Select three (3) of your favourite game genres. Examples are included to clarify.

- A) Platformer games - Super Mario series, Ori and the Blind Forest, Shovel Knight, Celeste
- B) Adventure games - Uncharted, Assassin's Creed, Tomb Raider
- C) Role-playing games (RPGs) - The Elder Scrolls V: Skyrim, Dragon Age, Mass Effect
- D) Simulation games - The Sims, Farming Simulator, Cities: Skylines, Stardew Valley
- E) Massive Multiplayer Online Role-playing games (MMORPG) - World of Warcraft, Elder Scrolls Online
- F) Fighting games - Street Fighter Series, Super Smash Bros, Tekken, ARMS
- G) Stealth games - Metal Gear Solid, Hitman, Dishonored
- H) Rhythm games - Guitar Hero, OSU, Just Sing
- I) First-person Shooters (FPS) - Call of Duty, Counterstrike, Overwatch, Rainbow Six
- J) Multiplayer Online Battle Arenas (MOBAs) - League of Legends, DOTA 2, Smite
- K) Battle Royale games - Fortnite, PlayerUnknown's Battlegrounds (PUBG), Apex Legends
- L) Horror - Until Dawn, Resident Evil, Five Nights at Freddy's
- M) Action RPG - Diablo, Path of Exile, Dark Souls
- N) Real-time strategy - Age of Empires, Starcraft, Warcraft, Command & Conquer
- O) Turn-based strategy - Civilization, XCOM, Final Fantasy
- P) Sports games - FIFA, WWE2k, Madden, Mario & Sonic at the Olympic Games
- Q) Racing games - Forza, Gran Turismo, Need for Speed
- R) Party games - Mario Kart, Mario Party, Fibbage
- S) Puzzle games - Tetris, Angry Birds, Portal
- T) Collectable card games - Pokémon Trading Card game, Hearthstone, Magic: The Gathering

20. Select three (3) of your LEAST favourite game genres. Examples are included to clarify.

- A) Platformer games - Super Mario series, Ori and the Blind Forest, Shovel Knight, Celeste
- B) Adventure games - Uncharted, Assassin's Creed, Tomb Raider
- C) Role-playing games (RPGs) - The Elder Scrolls V: Skyrim, Dragon Age, Mass Effect
- D) Simulation games - The Sims, Farming Simulator, Cities: Skylines, Stardew Valley
- E) Massive Multiplayer Online Role-playing games (MMORPG) - World of Warcraft, Elder Scrolls Online
- F) Fighting games - Street Fighter Series, Super Smash Bros, Tekken, ARMS
- G) Stealth games - Metal Gear Solid, Hitman, Dishonored
- H) Rhythm games - Guitar Hero, OSU, Just Sing
- I) First-person Shooters (FPS) - Call of Duty, Counterstrike, Overwatch, Rainbow Six
- J) Multiplayer Online Battle Arenas (MOBAs) - League of Legends, DOTA 2, Smite
- K) Battle Royale games - Fortnite, PlayerUnknown's Battlegrounds (PUBG), Apex Legends
- L) Horror - Until Dawn, Resident Evil, Five Nights at Freddy's
- M) Action RPG - Diablo, Path of Exile, Dark Souls
- N) Real-time strategy - Age of Empires, Starcraft, Warcraft, Command & Conquer
- O) Turn-based strategy - Civilization, XCOM, Final Fantasy
- P) Sports games - FIFA, WWE2k, Madden, Mario & Sonic at the Olympic Games
- Q) Racing games - Forza, Gran Turismo, Need for Speed
- R) Party games - Mario Kart, Mario Party, Fibbage
- S) Puzzle games - Tetris, Angry Birds, Portal
- T) Collectable card games - Pokémon Trading Card game, Hearthstone, Magic: [the Gathering](#)

Appendix A

Results Appendix A:

The results for appendix A have been inserted into this Word document. Double click to open the PDF file.

Timestamp	What is your name?	How old ar	I enjoy play	I play game	I play game
2020/04/15 9:27:43 am	EET Student 1	13	3	4	3
2020/04/15 9:28:41 am	EET Student 2	12	5	5	3
2020/04/15 9:28:57 am	EET Student 3	13	1	1	1
2020/04/15 9:28:58 am	EET Student 4	14	5	4	4
2020/04/15 9:29:14 am	EET Student 5	14	5	5	5
2020/04/15 9:29:30 am	EET Student 6	12	4	4	3
2020/04/15 9:29:44 am	EET Student 7	13	5	4	4
2020/04/15 9:30:10 am	EET Student 8	12	5	3	5
2020/04/15 9:30:13 am	EET Student 9	12	4	2	4
2020/04/15 9:30:33 am	EET Student 10	12	5	3	5
2020/04/15 9:30:34 am	EET Student 11	13	5	4	4
2020/04/15 9:30:49 am	EET Student 12	13	4	3	5
2020/04/15 9:31:03 am	EET Student 13	12	5	4	4
2020/04/15 9:31:11 am	EET Student 14	13	3	1	1
2020/04/15 9:31:14 am	EET Student 15	12	2	4	1
2020/04/15 9:31:32 am	EET Student 16	13	5	2	5
2020/04/15 9:32:29 am	EET Student 17	13	4	2	3
2020/04/15 9:32:58 am	EET Student 18	12	3	3	1
2020/04/15 9:33:02 am	EET Student 19	13	3	5	3
2020/04/15 9:33:15 am	EET Student 20	12	2	2	3
2020/04/15 9:33:27 am	EET Student 21	12	5	3	4
2020/04/15 9:33:45 am	EET Student 22	13	5	4	5
2020/04/15 9:33:52 am	EET Student 23	12	1	5	1
2020/04/15 9:36:01 am	EET Student 24	12	5	3	3
2020/04/15 9:38:55 am	EET Student 25	12	4	4	4
2020/04/15 11:51:46 pm	EET Student 26	13	5	3	4

Appendix B: Educational product

The educational product has been inserted into this Word document. Double click to open the PowerPoint file.



Appendix B

Appendix C: Pre-research measurement model

This measurement model measuring WTC was used to ascertain divergence in L2 WTC inside and outside the classroom in participants of the experimental group. A similar model was used by Peng (2013) in their study of measuring learner WTC in Chinese EFL groups. The model has been slightly adapted to include situations related to online communication in order to more closely relate to gaming and online teaching during COVID-19 quarantine.

Survey B1JT: Willingness to communicate inside and outside the classroom.

Most of you have probably had experience with speaking English in different situations, for example: in the classroom, on vacation, or online. In some of these situations it is easier to speak English than in others. There are ten (10) hypothetical situations below. Imagine you are in these situations and think about if you would be willing you would be to speak English if you were given the choice.

You can choose between:

- 1 = Never
- 2 = Sometimes
- 3 = Most of the time
- 4 = Always

Please fill in your name here: _____

Participating in a group discussion in an English class

1 2 3 4

Talking freely in an English class

1 2 3 4

Speaking in front of the class in an English class

1 2 3 4

Being asked to answer a question in an English class

1 2 3 4

Participating in a voluntary interview with your English teacher

1 2 3 4

Meeting an English-speaking acquaintance in the supermarket

1 2 3 4

Talking in a small group of strangers

1 2 3 4

Participating in a group discussion with English-speaking friends

1 2 3 4

Talking with friends online

1 2 3 4

Talking with strangers online

1 2 3 4

Results Appendix C:

	Participating in a group discussion in an English class	Talking freely in an English class	Speaking in front of the class in an English class	Being asked to answer a question in and English class	Participating in a voluntary interview with your English teacher.	Meeting an English-speaking acquaintance in the supermarket	Talking in a small group of strangers	Participating in a group discussion with English-speaking friends	Talking with friends online	Talking with strangers online
Student 1	4	3	5	4	4	4	3	3	5	4
Student 2	3	2	3	4	3	4	5	5	4	5
Student 3	3	2	4	4	3	3	3	2	3	2
Student 4	4	4	4	4	3	5	4	3	4	3
Student 5	4	3	3	4	5	3	2	3	3	3
Student 6	4	4	4	4	5	5	5	5	5	5
Student 7	3	3	4	2	2	3	3	3	3	3
Student 8	5	3	3	3	3	3	4	5	4	4
Student 9	4	4	4	4	5	4	4	3	3	3
Student 10	3	3	4	4	3	3	5	5	4	4
Student 11	2	3	3	5	5	3	3	3	4	3
Student 12	4	5	3	3	4	5	5	4	4	4
Student 13	3	2	3	4	4	5	3	4	5	2
Student 14	4	4	3	3	4	4	4	5	4	3
Student 15	3	3	3	4	3	4	3	5	5	5
Student 16	3	3	2	4	4	5	4	3	4	3
Student 17	3	4	4	4	5	4	2	2	3	3
Student 18	2	3	2	5	4	3	3	4	4	3
Student 19	4	4	4	4	4	4	4	5	5	5
Student 20	3	3	5	3	4	4	4	4	5	5
Student 21	3	2	4	4	4	5	5	5	5	5
Student 22	3	4	4	4	4	3	4	4	5	5
Student 23	2	2	3	3	3	3	3	3	3	2
Student 24	3	3	3	3	3	4	4	4	3	3
Student 25	4	4	4	3	4	5	5	4	5	4
Student 26	3	2	2	4	3	4	4	5	5	5

Appendix D: Questionnaire model used by Reinders & Wattana (2014)

APPENDIX A. Willingness to Communicate Questionnaire Set 1

This questionnaire contains 2 sections for measuring your **willingness to communicate** in the target language (English) particularly **inside the language classroom**. It should take about 10-15 minutes to complete. Please answer truthfully to guarantee the success of this study. Your answers will be treated confidentially and only the researchers will have access to the information you provide. Although we ask for your name, we do so only because we want to associate your answers to this questionnaire with your other data. Remember, you are telling the researchers about your communication in a classroom context. There are no right or wrong answers.

Name: _____ (Please give the character's name that you use when playing Ragnarok Online⁶)
 Gender () Male () Female

Section 1: Willingness to Communicate

Instructions: Below you will read a number of different communication tasks in which you might engage in the **language classroom**. We would like you to tell us how willing you would be to do each of these in *English*. By 'willing' we mean 'showing strong intention' so please put an "X" in the box that describes the level of your willingness, using the following scales.

	1	2	3	4	5
	Very unwilling	Somewhat unwilling	Neutral	Somewhat willing	Very willing

Communication Tasks	1	2	3	4	5
1 Talk to your classmates about a class assignment.					
2 Communicate ideas, feelings and opinions.					
3 Ask for clarification when you are confused about a task you must complete.					
4 Read task description/instructions before you start completing.					
5 Listen to what your classmates say in English.					

Section 2: State Communicative Self-confidence

Instructions: We are interested in your anxiety about communication and self-perceived communicative competence when communicating in **English in the classroom**. Put an "X" in the box that represents the degree to which you agree or disagree with each statement, using the following scales:

	1	2	3	4	5
	Strongly disagree	Disagree	Neutral/ No opinion	Agree	Strongly agree

Statements	1	2	3	4	5
1 I am not worried about making mistakes.					
2 I find it difficult to communicate in English.					
3 I am worried that I will not understand what my classmates say in English.					
4 I feel nervous about using English while participating in class activities.					
5 I can say what I want to say in English.					
6 I think my classmates cannot understand me because of my poor English.					
7 I feel comfortable sharing my ideas/feelings/opinions with my classmates.					
8 I know the words required for each task completion.					
9 In general, I find communicating in English in classroom situations relaxing.					
10 I think participating in class activities help me develop my fluency (i.e. with little hesitation and pauses).					

THIS IS THE END OF THE QUESTIONNAIRE.

APPENDIX B. Willingness to Communicate Questionnaire Set 2

This questionnaire contains 2 sections for measuring your **willingness to communicate** in the target language (English) particularly **during gameplay**. It should take about 10 minutes to complete. Please answer truthfully to guarantee the success of this study. Your answers will be treated confidentially and only the researchers will have access to the information you provide. Although we ask for your name, we do so only because we want to associate your answers to this questionnaire with your other data. Remember, you are telling the researchers about your communication in a gaming environment. There are no right or wrong answers.

Name: _____ (Please give the character's name that you use when playing Ragnarok Online⁶)
 Gender () Male () Female

Section 1: Willingness to Communicate

Instructions: Below you will read a number of different communication tasks in which you might engage in a **computer game setting**. We would like you to tell us how willing you would be to do each of these in *English*. By 'willing' we mean 'showing strong intention' so please put an "X" in the box that describes the level of your willingness, using the following scales.

	1	2	3	4	5
	Very unwilling	Somewhat unwilling	Neutral	Somewhat willing	Very willing

Communication Tasks	1	2	3	4	5
1 Talk to other game players about a quest assignment.					
2 Communicate ideas, feelings and opinions.					
3 Ask for clarification when you are confused about a task you must complete.					
4 Read quest description/instructions before you start completing.					
5 Listen to what other game players say in English.					

Section 2: State Communicative Self-confidence

Instructions: We are interested in your anxiety about communication and self-perceived communicative competence that you feel when communicating in **English in a computer game setting**. Put an "X" in the box that represents the degree to which you agree or disagree with each statement, using the following scales:

	1	2	3	4	5
	Strongly disagree	Disagree	Neutral/ No opinion	Agree	Strongly agree

Statements	1	2	3	4	5
1 I am not worried about making mistakes.					
2 I find it difficult to communicate in English.					
3 I am worried that I will not understand what other players say in English.					
4 I feel nervous about using English while participating in computer game activities.					
5 I can say what I want to say in English.					
6 I think other players cannot understand me because of my poor English.					
7 I feel comfortable sharing my ideas/feelings/opinions with other players.					
8 I know the words required for each task completion.					
9 In general, I find communicating in English in computer game situations relaxing.					
10 I think participating in computer game activities help me develop my fluency (i.e. with little hesitation and pauses).					

THIS IS THE END OF THE QUESTIONNAIRE.

Appendix E: Interview model used by Cao & Philip (2006)

Part I: general questions

1. How important is it for you to learn English?
2. How good are you at learning English?
3. What do you think your English level is like? What about your speaking skill in particular?
4. How motivated were you during this language course?
5. How much did you like learning together with your classmates in this course?
6. How would you describe your personality (quiet or talkative, relaxed or tense)?
7. How competent do you think you were to communicate in English during this course?
8. Did you feel very sure and relaxed in this class?
9. Did you feel confident when you were speaking English in class?
10. Did it embarrass you to volunteer answers in class?
11. Did you feel that the other students speak English better than you did?
12. Were you afraid that other students would laugh at you when you were speaking English?
13. Did you get nervous when your English teacher asked you a question?
14. Were you afraid that your English teacher was ready to correct every mistake you made?
15. In what situation did you feel most comfortable (most willing) to communicate: in pairs, in small groups, with the teacher in a whole class? Why?

Part II: stimulated recall questions

16. Did you like this task? Why? Why not?
17. How useful for your learning do you think this task was? Why? Why not?
18. Did you think you did this task well? Why? Why not?
19. Did you enjoy doing this task? Why? Why not?
20. Did you feel happy to work in this group/pair? What did you feel happy/not happy with?
21. Comparing the two tasks you did, which task did you prefer? Why? Which group did you prefer? Why?

Part III: individual questions

Ask individual learner to comment on their self-report WTC, behavior in group/pair and whole class situations.

Appendix F: Transcribed interviews

The transcribed interviews have been inserted into this Word document. Double click to open as PDF.

Interviewer: The first part that we are going to do is general questions, so this is more about what you think about English, education and about how well you are at English. So basically how good you think you are at English, okay?

Participant 1: Okay

Interviewer: So I'll start with my first question if that's okay with you?

Participant 1: Yeah!

Interviewer: Okay so what do you think your English level is like?

Participant 1: Um, I think it's a bit normal

Interviewer: Okay and why?

Participant 1: Because I cannot really speak English well and yeah it's a little bit hard but then not sometimes

Interviewer: Okay and what about your speaking skill in particular?

Participant 1: That's pretty bad

Interviewer: Why do you say that?

Participant 1: Because I cannot speak English well so still hear my accent really good.

Interviewer: But what about in class? If you compare that?

Participant 1: Yeah, um, in class it goes pretty okay yes

Interviewer: Okay good, let's move to the second question: So how motivated were you during the Dracula lessons? The gamified Dracula lessons.

Participant 1: I was pretty motivated I find it a fun lesson series and found the story good and I really liked it.

Interviewer: Okay, so the story is something you really liked?

Participant 1: Yes

Interviewer: And why do you think a story is something you really like?

Participant 1: Because for some reason it really interested me.

Interviewer: Could you maybe try and see if you can get to that reason.

Participant 1: Um... Yeah maybe because it had all these different choices I could make with it.

Interviewer: Okay, that's a great answer! So you have a story and you could make choices in it which helped motivate you.

Participant 1: Yes.

Participant 1

Interviewer: The first part is general questions and those that basically means that they are more about your general feeling during the gamified lessons, the Dracula lessons, and about your English speaking and just the way you felt during the lessons, okay?

Participant 2: Yes.

Interviewer: Yeah?

Participant 2: Yes

Interviewer: So, let's take a look at the first one. So, the first question is, what do you think your personal English level is like?

Participant 2: I think I can speak uh a lot of words, but I can't pronounce it very good.

Interviewer: Okay, okay

Participant 2: Now I am trying my best but it's sometimes not like

Interviewer: I'll be honest, I think you sound pretty good, so you don't have to worry about. Especially during the interview, just try to be as relaxed as possible, okay?

Participant 2: Okay

Interviewer: So, if you compare your speaking to your writing and listening skills, like you were saying, what do you think about your speaking skills then?

Participant 2: It's okay, but I need always to be reminded that I sometimes not speaking like Dutch English and sometimes not English.

Interviewer: Okay, thank you very much, that's a good answer. So, let's move on to the 2nd one. So, during the Dracula lessons, how motivated were you?

Participant 2: I was really motivated because I like your lessons with those things.

Interviewer: Okay, could you explain that a little bit? What do you like about them that motivates you?

Participant 2: Because I play a lot of games myself and I like quiz things and puzzles.

Interviewer: Okay, so you think that the riddles and the puzzles along with the look, the visuals of the game?

Participant 2: Yes

Interviewer: Yeah? Okay! Uhm, so during these Dracula lessons, how much did you like learning together with your class in one big group?

Participant 2: I like learning or what do you mean?

Interviewer: No worries! How much did you like it, or didn't you like it or basically did you like learning together as one big group during the Dracula lessons?

Participant 2: Yeah.

Participant 2

Interviewer: The first part is general questions and those that basically means that they are more about your general feeling during the gamified lessons, the Dracula lessons, and about your English speaking and just the way you felt during the lessons, okay?

Participant 4: Okay

Interviewer: The first question: What do you think your English level is like?

Participant 4: um I think it's good but sometimes I don't know words so then I have to ask. It's easier to understand what someone else says but if I'm stuck on my own it's harder then.

Interviewer: That's a great answer! So if you look at those specific skills what do you think about your speaking skills in particular? If you look at that one so compared to your writing, listening and other skills what about your speaking skills?

Participant 4: Yeah I think that it's good, but I don't know if somebody else thinks that too because you are an English teacher and I don't know if I am really that good

Interviewer: Ok so but you feel that it's quite good?

Participant 4: Yes

Interviewer: Ok I can tell you that your English is really good so no worries. Ok so the second question is how motivated were you during the gamified lessons so the Dracula lessons?

Participant 4: Yeah really motivated because I really liked it and it's also English learning.

Interviewer: Ok so what about it made you motivated or were you more motivated during these lessons then during regular English lessons?

Participant 4: Yes because it's also fun and you are, how do I say it, yeah you pay more attention because it's more fun

Interviewer: Okay that's a great answer thank you very much. The 3rd one is: how much did you like learning together as one class during these lessons? how much did you like doing that yes?

Participant 4: That was really fun because normally there may be people that are not um yeah being in class like that don't want to work together but it's nice when you can work together

Interviewer: Ok and why do you think it's nice to work together what makes it nice?

Participant 4: Um that you are not alone yeah and it's easier because if you don't understand something you can just ask

Interviewer: Ok so it helps you to understand what to do

Participant 4: Yes

Interviewer: Okay great these next two questions are a bit more about your own personality so the next one is: how would you describe your personality outside the classroom so when you're talking to friends or playing doing sport or things like that

Participant 3

Interviewer: Let's just move to the first question: Uhm, let me explain the first part. Part 1 is general questions. These are general questions about English, education and the gamified lessons which are the Dracula lessons we did last week. Okay, the first question. These are just your opinion so feel free to speak from your own opinion.

Participant 3: Okay

Interviewer: So what do you think your English level is like?

Participant 3: Uhm, I don't think it's very high, but it is quite high. I think it's more than people who are not doing TTO. And uhm, I watch many YouTube videos which are English, so I think that helps too.

Interviewer: Okay, and you can understand those without an issue?

Participant 3: Yes.

Interviewer: And what about your speaking skills: if you look at just your speaking and not your writing or listening skills. What do you think about that?

Participant 3: Uhm, sometimes I think in my head like what is the answer and then it goes yeah, I know more what to say than when I literally say it, so speaking is a bit lesser than writing but it's still okay.

Interviewer: Okay, great. Then the second questions. So how motivated were you during the gamified lesson? How much motivation did you feel.

Participant 3: Quite many motivation because I liked it very much and they help me with my English, so I really like it.

Interviewer: Okay, and what do think. Can you name one thing that was very motivating to you then. A specific thing?

Participant 3: Searching for answers, like riddles.

Interviewer: Okay good, so you really enjoyed the riddles, good! So the 3rd question is: how much did you like learning with your classmates as one big group during the Dracula lessons?

Participant 3: I like it quite much because you also learn something from other people.

Interviewer: Okay, and what do you think the others then brought to the table we say in English, so what did you think the others did that made you learn English.

Participant 3: They know other words that I don't know how to pronounce or something and just words that I don't even know they were in English.

Interviewer: Okay! So these next two questions are a bit more about your personality. So the 4th question is: How would you describe your personality outside the classroom? So not during the lesson but when you are playing or when you are doing something with your friends?

Participant 3: Energetic, so I have lots of energy.

Interviewer: Okay and a little bit more maybe?

Participant 4

Appendix G: Interview WTC markers results

Markers for WTC during intervention				
	Participant 1	Participant 2	Participant 3	Participant 4
Familiar Topic	<p>Positive - "I think I might be more of a leader (during the Dracula lessons) because I have a lot of experience with video games"</p>	<p>Positive - "(I was motivated) because I play a lot of games myself and I like quiz things and puzzles"</p> <p>"Yes, yes! Because it's things you like more and you put it together and then you have school that's a little bit less wrong and you have gaming with it and I like that."</p> <p>"I felt more confident (during the Dracula lessons) yes. Because it's a thing I did from like 6 years old, playing video games."</p>	<p>Positive - "Yes, I am doing word search and also which have parts with 4-5-6 letters and then you have to put them in a row. And I am doing very much jigsaw with my grandma too (so that helped me during the Dracula lessons)."</p> <p>"(Learning in the Dracula lessons)'s quite the same (as learning from videogames) because in Minecraft I have English and uhm yeah I am building with stuff so if I need something I can type in the words and sometimes I don't know what the word is and I have to search for it and I know it for next time. It was quite the same with the Dracula lessons because I know now the words for the pictures and constellation."</p>	<p>Positive - "I never really play video games but this was really different than normal video games because a lot of times it's just about building things or murdering people this was just all different things and all these riddles and yeah I think it was good like it was."</p>
Perceived L2 Competence	<p>Neutral - "In Dracula class it (speaking) is pretty okay, I guess"</p> <p>"Yes, because everyone could understand me and yeah, it was basically good enough then"</p> <p>"I (can speak English) just normal, about average."</p> <p>Negative - "My speaking is pretty bad"</p> <p>"Because I find it a little bit hard to speak English"</p> <p>"Uhm, sometimes (other students spoke English better) yes. But other times it's around the same level."</p>	<p>Positive - "I think I did (the recipes task) really well! Because I thought immediately that those letters are hints. That's the thing I always do when there are lots of words with a capital letter. I look at the first letters if it is a quiz or puzzle."</p> <p>Neutral - "I think I can speak, uhm, a lot of words, but I can't pronounce it very good. Now I am trying my best but it's sometimes not like this"</p> <p>"It (speaking) is okay, but I need always to be reminded that I sometimes not speaking like Dutch English and sometimes not English."</p> <p>"Some people needed to think a lot, but eventually it was good. And some people can go like really fast. I think I am a little bit higher than middle but not high."</p>	<p>Positive - "Uhm, I don't think it's very high, but it is quite high. I think it's more than people who are not doing TTO. And uhm, I watch many YouTube videos which are English, so I think that helps too."</p> <p>"Yes (I was confident), because English is a new language and I want to learn that so I think I am confident."</p> <p>Neutral - "Uhm, not better (at speaking English) and also not lesser because some are still doing the "r" we say in Dutch, in Limburg and that's not how English is and some are better because they can pronounce the accent really good."</p> <p>"Uhm, sometimes I think in my head like what is the answer and then it goes yeah, I know more what to say than when I literally say it, so speaking is a bit lesser than writing but it's still okay."</p> <p>"(I solved the riddles really quickly) uhm... Maybe because I like them a lot? And I am quite good at them."</p> <p>"(I did the recipes task) quite well, because I saw in one time what I needed to see, like the words from above to below. I knew them, I saw them in one time."</p>	<p>Neutral - "um I think it's good but sometimes I don't know words so then I have to ask. It's easier to understand what someone else says but if I'm stuck on my own it's harder then."</p> <p>"Yeah I think that it's good but I don't know if somebody else thinks that too because you are an English teacher and I don't know if I am really that good "</p> <p>"yes I think (I was competent) but sometimes they were some hard words that I didn't understand but the most of it "</p> <p>"I think (my English speaking skills were) the same because I can't judge cause I'm really not a professional and I think everyone just does great"</p> <p>"first I didn't know that it was the 1st letter of every word (during the recipes task) but when someone said it with the first recipe I knew the other two also really quickly"</p>

<p>Stress-free interaction in L2</p>	<p>Positive - "Yeah, pretty (relaxed) because it was pretty easy to do, and it was not really so hard?"</p> <p>"More relaxed (than during a normal lesson) I think."</p> <p>"(Speaking is) less strange. Because um, in normal lessons the sentences you have to speak you have to read them but with the Dracula lessons you can explain it in your own words."</p> <p>"No I wasn't afraid of that (students laughing at each other)"</p> <p>"No, not really (nervous if the teacher asked a question)"</p> <p>"No I (wasn't scared and I) think it's better when you correct (mistakes) otherwise it becomes a habit and it's harder to learn off."</p>	<p>Positive - "I liked it (working in one big group) because I now realize that I not always, how do I say this, I think I can do like a lot more and that I get a lot of things wrong, which people correct."</p> <p>"(I felt) more relaxed (during the Dracula lessons)!"</p> <p>"Yes (I felt confident)? But when I needed to read my story about the end battle I, uhm, become a little nervous."</p> <p>"No, (I was) not embarrassed to speak, no."</p> <p>Negative - "Sometimes (I did) not (like working with the class during the tasks), because it can take a lot of time. And if you get the right answers you sometimes need to wait a while for the rest to figure it out. "</p>	<p>Positive - "I like (working as one big group) quite much because you also learn something from other people. They know other words that I don't know how to pronounce or something and just words that I don't even know they were in English."</p> <p>"Yes, because uhm, as I said I liked the pictures and how it was made and everything, I liked that a lot. (It helped me relax) because uhm, like other lessons like French and something there is no PowerPoint, so the PowerPoint really helps me to focus."</p> <p>"Not always (embarrassed). When I'm not sure about my answer, I am a bit embarrassed but when I am pretty sure I'm not really. And I'm not scared to raise my hand then."</p> <p>"No (I was not scared that people would laugh), because we are all new and we are in the first grade. We are all learning the same and we don't speak English very good, so we are learning. I am not scared that people are laughing at me."</p> <p>"No. I am not very nervous during the Dracula lessons, only sometimes during regular classes"</p>	<p>Positive - "That was really fun because normally there may be people that are not um yeah being in class like that don't want to work together but it's nice when you can work together"</p> <p>"Um (when working as one group) you are not alone yeah and it's easier because if you don't understand something you can just ask."</p> <p>"Yes because in English lessons it's also a bit more strict so I have to be extra quiet but with the gaming lessons you can be yourselves"</p> <p>"Yes (I was relaxed) because you don't have to be in a rush because in English lesson they have a planning and you need to finish that in one lesson but in the gaming lesson just you can do it and it doesn't care if you can't make it yeah if you finish it"</p> <p>"I'm I think more confident than normal (during the Dracula lessons) because in English lessons um I am really thinking about things yeah thinking too much about things maybe and sometimes I forget what it is but during the gaming lessons it's just I don't really think about it"</p>
<p>Agency</p>	<p>Positive - "It really interested me ... maybe because it had all these different choices I could make with it"</p> <p>"(I liked it) because you had to choose between 4 potions. And if you choose wrong, I guess a life would have been taken away.</p> <p>"I'd say easier (to think outside of the box) because you had a story to start off with and you didn't have to think of something completely new."</p> <p>"(I liked it because)I think in the end was easiest (for thinking outside of the box). Because you had to choose to run away or fight Dracula. And if you choose the wrong way then you were gone, and he could've maybe attacked you. Or if you choose to fight him you might have lost or won."</p>	<p>Not mentioned.</p>	<p>Not mentioned.</p>	<p>Positive - "I liked that you could choose a character and name it the way you want"</p>

<p>Engagement</p>	<p>Positive - "I was pretty motivated I find it a fun lesson series and found the story good and I really liked it." "Yeah I liked it because there was more about the riddles and your knowledge about chess. You had to change it to something else which was fun." "I really enjoyed it! ... Because you had to choose between 4 potions. And if you choose wrong, I guess a life would have been taken away. If it is not exciting then you are just learning then and it would be like normal lesson." "I like the activities as a whole a lot, but those two (chessboard + potions) stand out a little bit."</p>	<p>Positive - "I was really motivated (during the Dracula lessons) because I like your lessons with those things." "Normal lessons are like: okay, we need to read blah blah blah. In the gaming lessons it's like yay there's a puzzle and it's fun!" "I am bored during normal lessons and feel a little bit more tired. During the gaming lessons I am more enthusiastic and happy." "Cause when we have a normal lesson it's really kind of boring. You need the book and, like, standard school. You see the clock and you think, oh no so long! With the gaming lesson I want to go further!" "Yes, I think I like (the chessboard activity) because it is a game a lot of people know how to play it and riddles with the game are pretty good I think." "I think normal lessons make me more, uhm, "sip" is that a word? (In the Dracula lessons) I think I am a little bit too enthusiastic, but I like them really really a lot more." "Oh yeah! The story was great! I like how it was just like a game and then we killed Dracula at the end which was really good." Neutral - "Yes? But I think you need to like get (the answer to the potions task) with the picture from the bottle and not with something else (from a different room). Because you need to go from that place to that place and you need to like do a lot more to figure it out."</p>	<p>Positive - "Quite many motivation (during the Dracula lessons) because I liked it very much and they help me with my English, so I really like it. (Especially) Searching for answers, like riddles." "Yes (there is a difference between normal lessons and the Dracula lessons), uhm, with regular lessons I am not much paying attention because it's more writing on a board or something and with Dracula lessons there is something happening. There are pictures in the PowerPoint and, yeah." "Yes, I really loved (the chess board task) because I love riddles. Exploring something in a picture and I love them like in sentences where there is something hidden in. But the picture was a bit harder to do (because) I don't really know much about the game" "I enjoyed (the potions task) quite well, yeah, uhm, I like to explore things in pictures and it was also a bit hard so it don't have to be like very easy for me." "(I liked the constellations task the best) because it was a bit of a challenge to me but when I look very good, I saw what I needed to do. So I liked it." "Uhm, yeah then I like it more because I am the first and so I wanted to do more!" "I really liked the story a lot and the different rooms and stuff."</p>	<p>Positive - "Yeah really motivated because I really liked it and it's also English learning" "Yes because it's also fun and you are, how do I say it, yeah you pay more attention because it's more fun" "yeah I think that was really fun because it's just when you are all inside during this time you don't have anything to do and then you just think about it for a long time and then you have to do something so I think that was really fun" "Um I don't know (why I liked the chess board activity) because I just liked the questions And I liked to think about it for a long time " "(The dungeon door activity) was really useful because I first thought it was a sentence but they were letters. So you also had to figure it out what you think is the sentence you are also learning English that way" "(I enjoyed) the chess board activity (the most) because it was like every time I had it right I got another challenge to do " "I think this was something different than normal video games because if you have "Fortnite" for example it's just with a controller and everything and you can't speak in it and now we made riddles during the Dracula lessons which I liked and when I had them right I just I don't know but I felt smart "</p>
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Appendix G

Appendix H: Interview gamification markers results

Markers for experiences with gamification during intervention				
	Participant 1	Participant 2	Participant 3	Participant 4
Goal Orientation	Positive - "(I liked it because) I think in the end was easiest (for thinking outside of the box). Because you had to choose to run away or fight Dracula. And if you choose the wrong way then you were gone, and he could've maybe attacked you. Or if you choose to fight him you might have lost or won."	Positive - I think we needed to listen to everyone. Like in the English lesson, I got a little bit irritated about Levi, but now I see I was wrong. Because I wanted to complete the game and the main quest and kill Dracula.	Not mentioned	Not mentioned.
Achievement	Not mentioned	Not mentioned	Not mentioned	Neutral - "The things we found were cool but with the items I kind of didn't know when to use so maybe that could be better?"
Reinforcement	Positive - "(I did not mind the teacher correcting us) because I think it's better when you correct it otherwise it becomes a habit and it's harder to learn off."	Positive - "(I do not mind if teachers correct me when) it's like one or two (mistakes) from five I can understand. But if they like counting the mistakes so like "you have all of them wrong!" I feel a little bit down. During the Dracula lesson I liked that I could just say what I wanted and that you did something fun with it."	Positive - "No (I was not afraid of the teacher correcting mistakes) because maybe you don't always correct it? During Dracula lesson you just listen to what we want to say and if we make a mistake it's okay, I think sometimes."	Positive - "no (I did not mind how often I was corrected) because it's just good then you correct me because from mistakes you can learn" "Yeah, uhm so just good feedback is not always good and I think that also in the Dracula lessons we already have so many good things that it's okay."

<p>Fun orientation</p>	<p>Positive - "I was pretty motivated I find it a fun lesson series and found the story good and I really liked it." "Yeah I liked it because there was more about the riddles and your knowledge about chess. You had to change it to something else which was fun." "I really enjoyed it! ... Because you had to choose between 4 potions. And if you choose wrong, I guess a life would have been taken away. If it is not exciting then you are just learning then and it would be like normal lesson." "I like the activities as a whole a lot, but those two (chessboard + potions) stand out a little bit."</p>	<p>Positive - "I was really motivated (during the Dracula lessons) because I like your lessons with those things." "Normal lessons are like, okay, we need to read blah blah blah. In the gaming lessons it's like yay there's a puzzle and it's fun!" "I am bored during normal lessons and feel a little bit more tired. During the gaming lessons I am more enthusiastic and happy." "Cause when we have a normal lesson it's really kind of boring. You need the book and, like, standard school. You see the clock and you think, oh no so long! With the gaming lesson I want to go further!" "Yes, I think I like (the chessboard activity) because it is a game a lot of people know how to play it and riddles with the game are pretty good I think." "I think normal lessons make me more, uhm, "sip" is that a word? (In the Dracula lessons) I think I am a little bit too enthusiastic, but I like them really really a lot more." Neutral - "Yes? But I think you need to like get (the answer to the potions task) with the picture from the bottle and not with something else (from a different room). Because you need to go from that place to that place and you need to like do a lot more to figure it out."</p>	<p>Positive - Quite many motivation (during the Dracula lessons) because I liked it very much and they help me with my English, so I really like it. (Especially) Searching for answers, like riddles. "Yes (there is a difference between normal lessons and the Dracula lessons), uhm, with regular lessons I am not much paying attention because it's more writing on a board or something and with Dracula lessons there is something happening. There are pictures in the PowerPoint and, yeah." "Yes, I really loved (the chess board task) because I love riddles. Exploring something in a picture and I love them like in sentences where there is something hidden in. But the picture was a bit harder to do (because) I don't really know much about the game" "I enjoyed (the potions task) quite well, yeah, uhm, I like to explore things in pictures and it was also a bit hard so it don't have to be like very easy for me." "(I liked the constellations task the best) because it was a bit of a challenge to me but when I look very good, I saw what I needed to do. So, I liked it." "Uhm, yeah then I like it more because I am the first and so I wanted to do more!"</p>	<p>Positive - "Yeah really motivated because I really liked it and it's also English learning" "Yes because it's also fun and you are, how do I say it, yeah you pay more attention because it's more fun" "Yeah I think that was really fun because it's just when you are all inside during this time you don't have anything to do and then you just think about it for a long time and then you have to do something so I think that was really fun" "Um I don't know (why I liked the chess board activity) because I just liked the questions and I liked to think about it for a long time " "(The dungeon door activity) was really useful because I first thought it was a sentence but they were letters. So you also had to figure it out what you think is the sentence you are also learning English that way" "(I enjoyed) the chess board activity (the most) because it was like every time I had it right I got another challenge to do " "I think this was something different than normal video games because if you have "Fortnite" for example it's just with a controller and everything and you can't speak in it and now we made riddles during the Dracula lessons which I liked and when I had them right I just I don't know but I felt smart " "I liked that you could choose a character and name it the way you want"</p>
<p>Progress Tracking</p>	<p>Positive - "I kind of liked the way everything looked and the map with all the rooms where we were was nice cause in a real game that's also there. You can see then where you were and it's nice to look what you already done."</p>	<p>Not mentioned.</p>	<p>Not mentioned.</p>	<p>Positive - "I think the map was nice cause we always could look where we were and where to go still, so we could see how much we still had to do."</p>
<p>Storyline-based Learning</p>	<p>Positive - "(The story) really interested me ... maybe because it had all these different choices I could make with it" "I'd say easier (to think outside of the box) because you had a story to start off with and you didn't have to think of something completely new."</p>	<p>Positive - "Oh yeah! The story was great! I like how it was just like a game and then we killed Dracula at the end which was really good."</p>	<p>Positive - "I really liked the story a lot and the different rooms and stuff." "(The visuals in) the PowerPoint really helps me to focus." "Yes as I said I liked the pictures and how it was made and everything, I liked that a lot."</p>	<p>Not mentioned.</p>

Appendix H