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# Gamifying the EFL Curriculum via *Classcraft*

To affect Dutch havo 4 students' motivation.

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Master thesis

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## Abstract

This study aims to analyse how a gamified English Foreign Language (EFL) curriculum via *Classcraft* affects motivation of Dutch havo 4 students. This experiment was implemented at the Almende College Isala. A total of 52 students participated in this experiment, they were divided over two classes. The control group consisted of 86 students, they were divided over four classes. Results showed that feelings of autonomy were positively impacted due to gamifying the EFL curriculum through *Classcraft*. Results regarding motivation only showed a small overall increase in the experiment group. It was found that the secondary factors seemed to account for this. Considering the results, gamifying the EFL curriculum shows promise in relation to improving autonomy and self-determination.

*Keywords:* autonomy; *Classcraft*; English as a Foreign Language; gamification; motivation; secondary education; Self-determination theory.

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## Introduction

Issues concerning motivation among Dutch students have been confirmed as a national struggle (Cox & Van der Vegt, 2018) among various levels of education (Bernasco, 2009; Inspectie van het Onderwijs, 2019; Van Gool, 2017). Students' attitudes towards school, has been dubbed the infamous "zesjes-cultuur", a culture of mediocrity, by teachers and educational institutes across the country (Gijssen et al, 2013). This culture, in which students try to pass the school year with minimal effort, has been linked to the decline in motivation on a national level (Ibid). The Onderwijsraad (Educational council) published their advice, *Presteren naar vermogen* (2007, cited in Dijkstra, 2015), which urged schools and teachers to stimulate students to bring out the best of themselves. This published advice was intended to combat the motivation problem together with the *Passend Onderwijs* law (2014, cited in Dijkstra, 2015). However, the way the control systems are designed to check schools often leads to isomorphism and strategies like window dressing and teaching to the test (de Wolf & Janssens, 2005).

In accordance with this, Martens (2015) highlights the focus on tests, especially in relation to test results and the number of tests given at secondary schools, as the main drive behind this low-motivational trend. Martens notes specifically that the function of a test no longer works as a check to determine if a student mastered a concept but, instead, has become a goal on its own (2015, p.15). Receiving a 'pass' has become the purpose of studying. Aarts (2016) stresses the importance of increasing student involvement, autonomy, and challenging them to think for themselves to be key in surpassing this culture of mediocrity.

In contrast to the overall motivation among Dutch students, motivation in relation to the subject of English seems to be divided. While students at Universities of Applied Sciences (hereafter hbo) report a decrease in motivation for English as the tests are thought of as being too difficult (Bernasco, 2009, p.10). Secondary school students who are taught via Content and Language Integrated Learning (CLIL) appear to be more motivated to study English compared to their peers who follow the regular teaching program (Elzenga & de Graaff, 2015). Qompas conducted a study in 2019 in which they analysed the data of 170,000 senior general secondary education (hereafter havo)

students in relation to the subjects they liked most over a period of eight years. Havo prepares students for higher professional education (hereafter hbo) (Ministry of Education, n.d., par 1). In this study, English was one of the highest scoring subjects. In havo 3, 59% of the girls saw English as an interesting subject (p.6). Over the years, however, this decreased to an average of 40-45% and the same went for the boys' scores (p.11). Still, English remained one of the most popular subjects in school. Nevertheless, the overall gradual decrease in subject interest over the years is worrisome. Together with a significant decrease in their results, Qompas (2019) notes boys and girls had never scored such low average results in general in school year 2018-2019 (p.35), a continuing negative development is portrayed.

Consequently, the current havo 4 students face significant motivational issues according to Weeda (2023). In her report for the digital newspaper NRC, she writes that student motivation among havo 4 students has plummeted even more. Weeda highlights that havo 4 has always been a year in which a lot of students, one in six boys and one in eight girls, do not continue to havo 5. While motivation among havo 4 students has always been low, Weeda highlights that havo 4 has always been a year in which a lot of students, one in six boys and one in eight girls, do not continue to havo 5 due to a more in-depth approach in havo 4 compared to havo 3. Additionally, primary school teachers note an increase in parental pressure when children go to secondary school. This means that more students are going to havo instead of vmbo despite their results (Nederlands Jeugdinstuut, 2022; Trimboos-instituut, 2020; Weeda, 2023), resulting in classes with diverse learning needs and adding pressure to secondary school teachers to accommodate and differentiate their teaching material (Smale-Jacobse, Meijer, Helms-Lorenz & Maulana, 2019). Furthermore, with the added impact of the covid-19 pandemic, a delay in social development and learning strategies also increased stress (Centraal Bureau voor de Statistiek, 2021). Consequently, the pressure students experience to perform, "the pressure to do everything just the way the school wants it. You must get sufficient marks, otherwise you are not allowed to continue", results in stress (Weeda, 2023, para. 4).

Since student motivation is not a stable phenomenon it is often measured by instances like the Organisation of Economic Co-operation and Development (hereafter OECD) to adapt and develop current policies world-wide. Concerning Dutch students, the OECD (PISA, 2016) found them to be

significantly less motivated compared to students from other member countries. This gives an indication in regards to the severity of the situation on an international level.

The OECD (PISA 2015, 2016) also found that both intrinsic motivation and extrinsic motivation positively influence student performance, which in turn lead to improved results. Zhu and Leung (2011), however, noticed a tendency among Dutch teachers to value “the role of internally oriented motivation in students’ learning” over that of extrinsic motivation (Ibid, p.1206). This indicates that Dutch educators believe that arousing a student’s interest should be enough to initiate a student’s drive to learn. However, as the OECD (2016, 2017) and the Education Report (2015) show, simply addressing a student’s interest to foster intrinsic motivation is not enough. Extrinsic motivation should be addressed too (Ackerman, 2018; Dörnyei, 2009; Elzenga & de Graaff, 2015).

Consequently, the OECD found that a predominant extrinsic motivation could undermine intrinsic motivation over a longer period of time (2016). The implication could be that students only study for their test results and lose ownership of their learning process (OECD, 2016).

The importance of autonomy and ownership is especially stressed in the Self-determination theory (hereafter SDT) (Ryan & Deci, 2017). The SDT is a psychological framework that explores the innate human need for autonomy, competence, and relatedness as key factors for motivation (2017). In this theory, extrinsic motivation could function as intrinsic motivation as it consists of several modes all with a varying level of self-determination. Note that extrinsic and intrinsic motivation are not the same. Intrinsic motivation pertains to doing a task out of enjoyment, whereas extrinsic motivation relates to doing a task for external reasons. However, the more self-determined a person’s reasons are to do a task, meaning a person integrates or identifies themselves with the extrinsically motivated reasons to do a task, the more ‘intrinsic’ the extrinsic motivation becomes. Ryan and Deci (2017) call this autonomous motivation. Their theory has been tested thoroughly (Cameron, 2001; Furlong, 2003; Gagné & Deci, 2005; Ryan & Deci, 2017) and has been used in multiple studies concerning adolescent motivation and ways to influence that motivation (Ackerman, 2018; Gueay, Ratelle & Chanal, 2008; Tang, 2008; Vansteenkiste et al, 2009; Woolfolk, Hughes & Walkup, 2008).

Using extrinsic motivation in education increased due to the emergence of a global trend which uses games to foster motivation in students. The concept of using games, or elements thereof

(e.g. rewards), in a classroom setting is not an entirely new concept. It is, however, still considered a relatively new trend to combat for instance motivational issues. To use game elements or aspects of games in a non-game related activity or a non-game related setting like a school, is called gamification (Yunyongying, 2014, p.410). Teachers have started gamifying their teaching material because the challenges gamified material present to a learner have been proven to increase a learner's motivation (Dichey & Dicheva, 2017; Groening & Binnewies, 2019; Kyewski & Krämer, 2018). Furthermore, applying gamification to enhance work forms has been proven to assist learners in developing their autonomy (Groening & Binnewies, 2019; Kyewski & Krämer, 2018; Reeve, 2006) and self-determination (Prensky, 2005) allowing students to take ownership of their learning process. Although the effects of gamification regarding motivation have been researched quite extensively (Juul, 2013; Kyewski & Krämer, 2018; Monerrat, Lavoué & George, 2017; Prensky, 2005; Lynch & Gerber, 2017), no research has been done about gamifying a school's curriculum or a part thereof to affect motivation. Yunyongying (2014) highlights the possibilities gamifying the curriculum could bring and stresses the need for further research.

The objective of this research is to explore how a gamified curriculum affects the level of motivation of have 4 students at a Dutch secondary school in the EFL classroom. The gamified curriculum will be compared to the existing curriculum at the Almende College Isala (hereafter Isala) in which traditional didactics, (i.e. frontal instruction paired with strong teacher guidance, van Doorn, 2021), are central. Have 4 students have been chosen as they experience a motivational crisis (Weeda, 2023) on top of the existing motivational issues in the Netherlands, which have been mentioned earlier. The online role-playing platform *Classcraft* has been chosen as the medium to gamify a part of the school year's curriculum. The reason *Classcraft* is used is that it has shown particular promise in regards to reviving motivation and academic performance (Dangi & Saat, 2021; Rivera-Trigueros & Sánchez-Pérez, 2020; Zhang, Yu & Yu, 2021), due to its foundation in SDT.

Previous research shows that *Classcraft* has been used for a short period of time (Rivera-Trigueros & Sánchez-Pérez, 2020). Rivera-Trigueros and Sánchez-Pérez insist that further research is needed but stress the positive possibilities *Classcraft* could bring to the EFL classroom if used for a longer period of time. The duration of their intervention was two weeks.

The central research question of this study is:

1. How does gamifying a period of the havo 4 curriculum through *Classcraft* affect learners' motivation during EFL class at a Dutch secondary school?

To be able to answer this research question, the motivation of the havo 4 students needs to be investigated. Since motivation is a complex construct, as it is influenced by a plethora of factors, the following subquestions address the different subthemes of the motivational concepts of the SDT.

These subthemes are: intrinsic motivation (which consists of three subthemes), extrinsic motivation (which consists of four subthemes), and amotivation. These subquestions provide specificity as they allow a more precise determination of how the gamified curriculum affects student motivation.

- A. How does the usage of *Classcraft* increase feelings of intrinsic motivation?
- B. How does the usage of *Classcraft* increase feelings of extrinsic motivation?
- C. How does the usage of *Classcraft* affect feelings of amotivation?

Through a description of the relevant theory and a largely qualitative empirical research, these questions shall be answered. The findings of this research could offer insight into the intricacies of the Dutch havo 4 students' motivation regarding English in general and how a gamified curriculum via *Classcraft* affects it.

In Chapter 2 a literary overview will be provided in which the SDT will be discussed thoroughly together with the topic of the Dutch adolescent and the effect of gamification. The empirical research, carried out at the Almende College Isala among the havo 4 students, is then described in Chapter 3. In Chapter 4 the results regarding the *Classcraft* intervention are shared and analysed. The conclusion based on the results and the discussed literature is shared in Chapter 5, together with the limitations of this study and future recommendations.

## Theoretical Framework

### Motivational theories

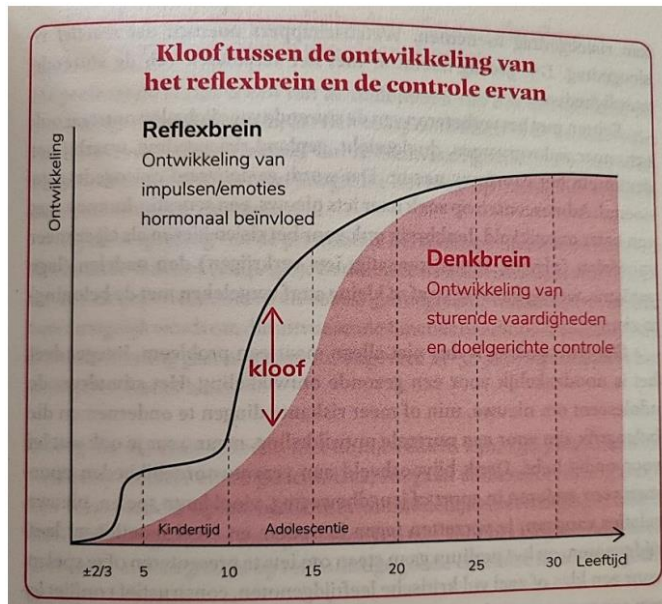
Theories of motivation often look at the concept of motivation through two lenses, quantity and quality (Frontier et al., 2011). Motivation in regards to quantity is the “amount of motivation an individual has towards a specific task” (Ibid). A person’s motivation to do a certain task is either high or low. Quality of motivation, on the other hand, focuses on the “underlying motives for action”, the internal reasons as to why a person feels motivated to do a certain task (Ibid).

In relation to student motivation, and especially the declining motivation of Dutch students, it is important to look at these underlying motives to find out how students can be motivated. Theo Compernelle, a renowned neuropsychologist who specialises in teenagers and how their brains work, indicates that changes in an adolescent’s brain impact the way they are motivated (2022).

Compernelle (2022) links the development of an adolescent’s brain to the three phases of adolescence. Pre-adolescence for those between the ages of ten to fourteen, middle-adolescence for those between the ages of fourteen and sixteen and late adolescence concerns those between the ages of sixteen and twenty years. This difference in phases is important to note as the subjects of this study are between the ages of fifteen and seventeen, addressing two different phases of adolescence. During these phases a better communication is being established between the stimulus driven reflex brain and the ‘rational brain’, what Compernelle calls “het denkbrein”. This developmental process is not without hiccups, because the different parts of the brain do not develop in a contemporaneous manner. Figure 1 illustrates the difference in development and the significant head start of the reflex brain (Compernelle, 2022, p.231).

**Figure 1**

*The Gap Between the Development of the Rational Brain and the Reflex B (Compernelle, 2022, p.231).*



*Note.* From “Ontketen het Brein van je Kind: Van schermverslaving naar digitale vrijheid. Lannoo Meulenhoff - Belgium.” By T. Compernelle (2022). P.231

The limited capacity of adolescents, illustrated by the “kloof” [gap], to control impulsive behaviour allows so-called ‘reactive risk-taking’ (Compernelle, 2022; Duijvenvoorde & Crone, 2013; Maslowsky et al., 2020). This “risk behaviour stems from a mismatch between reward-driven behaviour and the ability to self-regulate, owing to a structural and functional maturational imbalance between two neural systems, cognitive control and incentive processing” (Maslowsky et al., 2019, p.243). The rational brain does not yet have enough new reflexes or patterns to stop, channel or prevent the reflex brain from taking over which results in acting without thinking. The reflex brain craves rewards and is especially triggered by the need for immediate satisfaction (Compernelle, 2022). Nonetheless, through the development of the rational brain, which allows adolescents to plan, prioritise and think in (long term) goals, risk behaviour changes from reactive to motivational. Teenagers are looking for something new and learn to be able to take risks based on outcome. If

taking the risk implies more reward (fun, status, sensation) it will outweigh the disadvantages (Compernelle, 2022).

Compernelle indicates that the need for immediate satisfaction of the reflex brain, which has become the norm within our society through the usage of mobile phones and consequently the ability to always connect with others, complicates acquiring executive skills like attention control and emotional control. Compernelle (2022) stresses the importance of supporting adolescent brain development in safe areas like schools. Supporting motivation by providing autonomy and independence to allow adolescents to experiment safely is highly beneficial to the development of their rational brain.

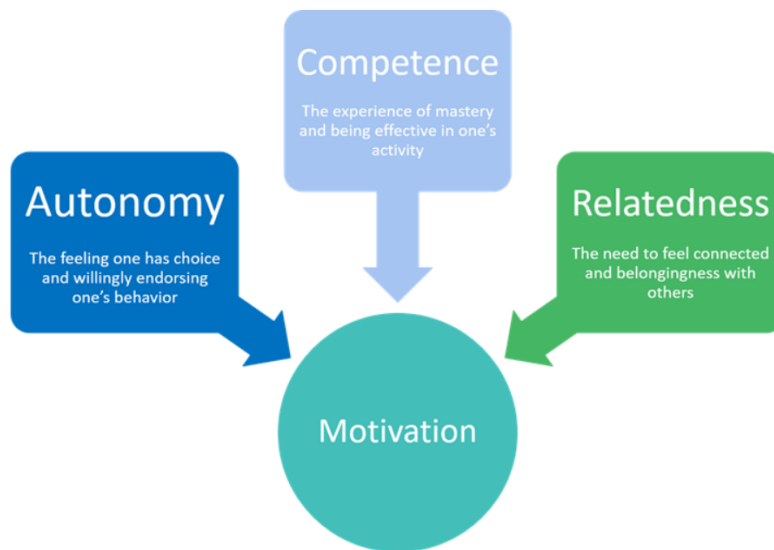
## SDT

Self-determination is the “process by which a person controls their own life” (Oxford Advanced Learner’s Dictionary, n.d.), or in other words, “the ability of a person to choose to either engage in an activity or to cease it” for “reasons that come from within oneself and are freely chosen.” (Frontier et al., 2007, p.743). To be self-determined could therefore be seen as the utmost form of autonomy. Self-determination is not exactly the same as intrinsic motivation, it is nonetheless a motivator to partake in an activity.

Autonomy is inherent to SDT as it is one of the three basic psychological needs that form the basis of SDT. These needs, already mentioned in the introduction as key factors which drive motivation, stem from Maslow’s hierarchy of needs in *A Theory of Human Motivation* (1943) and are shown in figure 2 (University of Rochester Medical Centre, n.d.).

**Figure 2**

*The Three Basic Psychological Needs that Foster Motivation.* (adapted University of Rochester Medical Centre, n.d.).



*Note.* From University of Rochester Medical Centre, n.d.

Relatedness pertains to a sense of belonging and a need to connect with others. The social environment, which consists of classmates and teachers in the case of this study, can either promote motivation or have a negative influence motivation. Competence concerns the ability to accomplish something. Someone could feel challenged but still able to do a certain task. Completing the difficult task gives a sense of accomplishment and encourages initiation. Therefore, to foster the feeling of autonomy, someone should not only be given choices, but additionally try to understand a person's perspective and point of view in order to see the reasons why someone might do a certain task or not. Furthermore, it is paramount that pressure or control should not be used to make them do a task (Ryan & Deci, 2017).

While it is required to meet all needs in order to be motivated, the concept of autonomy seems to be highlighted specifically as it is linked to extrinsic motivation in the SDT. Autonomous motivation can be defined as “engaging in a behaviour because it is perceived to be consistent with intrinsic goals or outcomes and emanates from the self. In other words, the behaviour is self-determined.” (Hagger et al., 2014). Motivation from a self-determined perspective is called autonomous motivation. SDT further advocates that the more self-determined or autonomous the motivation, the better the observed outcomes; “it promotes deep learning, high academic performance,

better adjustment, and positive well-being” (Kusurkar, 2012, p.59). Furthermore, Gagné & Deci (2005) indicate that their theory allows to specifically target and measure autonomy. The SDT is, according to Gagné and Deci, the “only theory that has detailed the process through which extrinsic motivation becomes autonomous motivation as motivational and autonomous outcomes can be measured and acted upon.” (2005, p.348). While the focus of the SDT seems to predominantly be on extrinsic motivation, Deci and Ryan strive to measure motivation in detail. In the SDT the three types of motivation; intrinsic motivation, extrinsic motivation and amotivation, are examined and intrinsic motivation and extrinsic motivation are divided into subthemes.

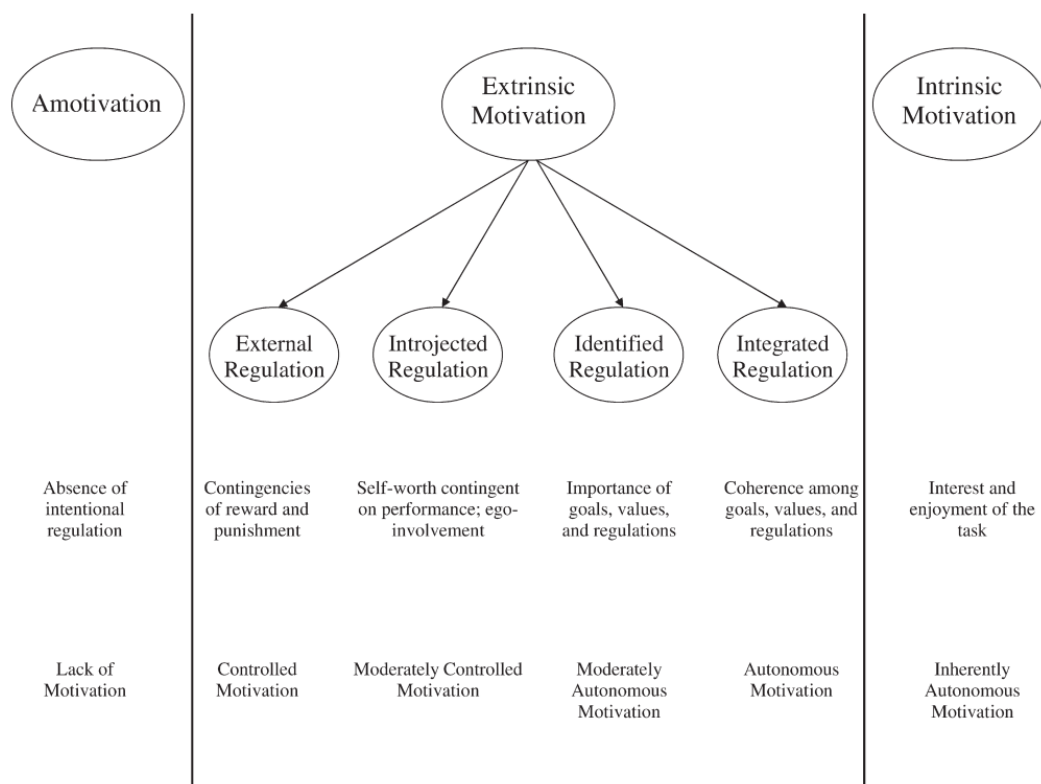
Intrinsic motivation can be defined as doing something out of genuine interest in an activity and it is often dictated as the main motivator in EFL education (Bloemert et al., 2019). Intrinsic motivation is divided into three subthemes: to know, to experience stimulation, and towards accomplishment. Intrinsic motivation concerning to know is about the pleasure someone experiences when it comes to learning new things. Intrinsic motivation relating to experience stimulation “represents involvement with an activity for the experience of fun, excitement and positive sensations” (Barkoukis et al., 2008, p.40). Intrinsic motivation towards accomplishment is about “engagement in an activity for the pleasure and satisfaction derived when trying to excel to reach a new standard or to create something new.” (2008, p.40).

Extrinsic motivation could be defined as being “derived out of an expected gain or separable outcome” (Deci & Ryan 2008). In contrast to intrinsic motivation, extrinsic motivation is, as previously mentioned in the introduction, often undervalued by Dutch educators (Zhu and Leung, 2011). Extrinsic motivation is divided into four subthemes ranging from least autonomous to most autonomous: external regulation, introjected regulation, identified regulation and integrated regulation. The two subthemes that are least autonomous, or least self-determined, are categorized as controlled motivation. Controlled motivation signifies that a person’s motivation is in some way controlled; they experience pressure to think, to feel or to behave a certain way. It consists of external regulation and introjected regulation. The former is behaviour influenced by external contingencies regarding reward or punishment and the latter pertains the choice to behave a certain way related to goals and ego involvement. For instance, when a person is motivated to do something based on

involvement of the ego, they wish to avoid shame or wish to gain approval (Barkoukis et al., 2008). Contrary to the controlled motivation, autonomous motivation sees a person identifying themselves with the value of an activity or skill. Identified regulation and integrated regulation fall in this category. Ideally, the activity or skill will be integrated with their sense of self. For example, when a person is autonomously motivated, they experience self-efficacy, self-endorsement and volition. The last theme is amotivation which “refers to a lack of intention and motivation” (Deci & Ryan 2008), meaning someone is not motivated at all to do a certain task. For a full overview of the themes and the subthemes regarding extrinsic motivation, see figure 3 which shows the SDT’s self-determination continuum (Deci and Ryan, 2005).

**Figure 3**

*The Self-Determination Continuum*



*Note.* From “Self-determination theory and work motivation” by M. Gagné and E.L. Deci, 2005, *Journal of Organizational Behavior*, 26(4), p. 336.

While they share many qualities, Gagné and Deci (2005) stress the importance of keeping the themes separate. Since the SDT “suggests that intrinsic motivation concerns experiencing activities as interesting and spontaneously satisfying, whereas autonomous motivation concerns experiencing activities not as interesting but as personally important for one’s self-selected aims and purposes” (2005, p.348).

### SDT & Gamification

The SDT has been used in gamified work forms as a framework to enhance student motivation due to its ability to measure motivation in detail and its in-depth approach to extrinsic motivation (Lamprinou & Paraskeva, 2015). SDT has also been used to analyse the effectiveness of the quality of self-determination on game-based platforms like SOLOLEARN (Botte, Bakkes & Veltkamp, 2020). SDT has also been used in comparison to the Flow Theory as an explanation for gamification’s effectiveness in regards to academic results (Chapman et al., 2023). Chapman et al. (2023) aimed to validate and define a theoretical explanation as to why gamification showed positive effects on academic outcomes via two theories, SDT and the Flow Theory. In their study, both theories showed no significant impact which resulted in an insufficient explanation as to why gamification is effective in education in regards to academic results. Nevertheless, gamification has been found to be effective even if it cannot be clarified by the SDT (Chapman, 2023). Even though this is the case, this study will still use the STD to measure and explain motivation as the aim is to measure how a gamified curriculum via the online role-playing platform *Classcraft* affects student motivation. SDT however does clarify motivation itself in detail (Guay, et al., 2008; Vansteenkiste et al., 2009) which is why it is used in this study as the aim is to measure how a gamified curriculum via the online role-playing platform *Classcraft* affects student motivation.

While platforms like SOLOLEARN and *Classcraft* are relatively new, the concept of gamifying nongame-related material or using game elements, like rewards and the aspect of competition, to enhance education is not (Yunyongying, 2014, p.410). Teachers have started gamifying their teaching material as it can present challenges to a learner, which do not only increase a learner’s motivation through its fun, rewarding, and competitive nature, but also assists in

developing students' autonomy (Kyewski & Krämer, 2018; Groening & Binnewies, 2019). With its success in fostering student motivation, participation, and autonomy, gamification has become one of the latest trends within the educational sector (Groening & Binnewies, 2019; Hallifax, Serna, Marty & Lavoué, 2019; Hassan, Habiba, Majeed & Shoaib, 2021; Kyewski & Krämer, 2018; Li, Zhang & Yu, 2021; Lynch & Gerber, 2017).

The increase in popularity of using games in education could have followed a development in the gaming industry as a new type of gaming – called complex gaming – steadily emerged and gained popularity, especially among teenagers (Prensky, 2005). Complex games, as the name suggests, requires “tens of hours of concentrated attention to master” and demand the player to “learn multiple skills as well as the ability to research and communicate outside the game.” (p.24). Prior to complex gaming, the concept of what Prensky calls ‘mini games’ was all that was known. Mini games, which are still played today, are games that take two hours or less to complete. These mini games can be both digital, physical board games or a combination of both. Even though Prensky considers them to be ‘trivial’, as they are rather easy to master and do not require the player to put in an extensive amount of time and effort, he stresses that they are not useless. “Mini-games are excellent for relaxation and breaks (Solitaire)” they are seen as a “great exercise for the brain” and are well-suited for “accomplishing specific tasks” (2015, p.25). Concerning minigames in education, these are particularly useful to motivate learners, to practice a specific skill or to provide enrichment regarding a previously taught subject. Most educational (mini) games are designed by educators and are based on the games they grew up with. This is (one of the reasons) why educators – and parents – often think that all educational games are trivial to a certain extent. This is not entirely true as this ignores the existence of complex games. Compared to minigames, which can only exist alongside additional material, complex games can educate students while piquing their interest without the need of extra resources.

The popularity of gamification is mainly based on its positive outcomes. Gamified material has the capability of bringing the aspects of motivation and self-determination together, as students are challenged to make decisions which will affect a games' outcome, and in turn, increasing the fun experienced. According to Kyewski & Krämer (2018) and Groening & Binnewies (2019),

gamification has the potential to enhance these very aspects even more, resulting in an increase in student participation (Zhang, Yu & Yu,2021). Research has shown that extrinsic rewards, like in-game money or experience points which are often offered in games, have a positive impact on student participation (Rivera-Trigueros & Sánchez-Pérez, 2020; Sanchez, Young & Jouneau-Sion, 2017). Zhang, Yu and Yu (2021) found that the interface of gamified materials plays a significant role in the success of gamified materials within the educational sphere by saying ‘[the] entertaining and exciting atmosphere accounts for the incredible popularity of gamified designs in educational contexts’ (2021, p.17).

Previous research about gamification in the EFL classroom has found positive results. Kayımbaşıoğlu et al. (2016) found that language acquisition improved significantly in a gamification context. Furthermore, they also found that implementation of technology minimised distractions and boosted learning development (Ibid). Philpott and Son (2022) found that using leaderboards in an EFL classroom showed positive effects on student performance and extrinsic motivation. However, they did note that when the extrinsic goals were met, the students’ motivation decreased.

With the increase in using games in education, gamification is often confused with, and portrayed as, a synonym of serious gaming and game-based learning. However, they are not the same. Giessen (2015, p.32) explains that within gamification, elements of games are being used in a non-game context; serious games are games that are made for a specific teaching goal and are often seen in vocational training schools or teaching modules (Ibid, 2015). In game-based learning, a participant creates a game and learns from that process (Ibid, 2015). Even though Giessen analysed the effects of using serious games within educational settings, he found an overlap between gamification and serious games which both benefitted education. He found that teachers who use games, or game elements, as a tool to activate students achieved an increase in interest and motivation among their students (2015, p.32).

### Critical note

Li, Zhang and Yu (2021) found that a distinction should be made regarding the purpose of an educational game: not every game focuses on the aspect of learning. Games within an educational setting could have a plethora of purposes. For example, an educational game could have the purpose

of enhancing a student's learning attitude, it could have the purpose of just being fun, or even relieving or decreasing a student's cognitive stress levels.

On a critical note, whereas an extensive amount of research has found a positive correlation between student motivation, student participation and student autonomy or self-determination (Ackerman, 2018; Dangi & Saat, 2021; Li, Zhang & Yu, 2021; Rivera-Trigueros & Sánchez-Pérez, 2020; Sanchez, Young & Jouneau-Sion, 2017; Zhang, Yu & Yu, 2021) in relation to gamification, it must be said that some critical aspects seem to have been dismissed. For instance, a possible downfall regarding gamification is the complete focus on extrinsic reward to influence behaviour (Prensky, 2005) and consequently dismissing all that gamification has to offer. To reduce gamification to the mere elements of the extrinsic rewards will only signal that a job has been well done and therefore only focus on behaviour and not on the other components (Lynch & Gerber, 2017, p.89).

Lynch and Gerber (2017) note that when games are merely seen as “systems of rewards that result in extra points, power-ups, and various in-game rewards” (p.89), it misses the very essence of what gaming is, how a game works and the impact a game can have on a player. Lynch and Gerber call this reductionist view the biggest miss in the current gamification trend in education because it overlooks the importance of a player's meta-awareness. They explain the concept of meta-awareness as the ability of students to reflect on their thinking process, their performance and peer and teacher feedback which provides students with ‘differentiated and self-adaptive’ learning opportunities (Ibid).

Furthermore, when an educational game is poorly designed, the goals a teacher might have set in the gamified work form to enhance a skill or to teach a concept, will not be met. In *The Art of Failure* (Juul, 2013, cited by Lynch & Gerber, 2017, p.90), it is indicated that, due to the hype of gamifying teaching material, the concept of failure is often overlooked. Failure is an unsuccessful attempt which prompts a player to reassess their choices and reattempt the assignment using a different approach. This means that educators need to look beyond students simply redoing their work until they get it right (Juul, 2013; Lynch & Gerber, 2017). Juul (2013) stresses the need to develop a system that allows students to test different ways to explore and solve problems. Gamification, if designed well and with the concept of failure in mind, could provide such a system. Failure is

paramount to the development of students as it teaches students to self-regulate their progress by reflecting on their failure (Juul, 2013).

Additionally, poor design of an educational game could result in a game just being fun in which the educational purpose is lost (Giessen, 2015; Kyewski & Krämer, 2018; Lynch & Gerber, 2017). This ties in with Prensky's association with the triviality of a game (2005, p.26). The downfall of this is that parents and educators could regard educational games as trivial. This is a potential limitation which impacts game design and utilising games in schools to enhance education. This could result in students and teachers missing out on a wonderful progressive student and teacher experience. Furthermore, the focus on games being trivial negatively impacts game design, which – in turn – affects the effectivity of a game, as complex games should be “designed and used correctly” (2005, p.27) to be able to achieve its purpose. In their study, Lynch and Gerber (2017) analyse several forms of gamification and elucidate inferior design and lack of purpose is often related to poor design choices. According to Lynch and Gerber (2017), *Classcraft* is an exception as it is designed on the principles of the SDT which brings structure and purpose to *Classcraft* (Ryan and Deci, 2000a; 2000b; 2008; 2017). Since poor design has led to an influx in gamified forms on the market that muddle the benefits well-designed gamification forms could bring to education. This highlights the necessity to foreground and study well-designed games that show great potential in enhancing education, and especially why they do so, to enhance visibility.

### Classcraft and gamifying the curriculum

A topic that has not yet been researched is the implications gamification could have on curricular design. While short gamified projects, spanning two to four weeks, have been examined to some extent (Lynch & Gerber, 2017; Lavoué, Monterrat, Desmarais & George, 2018), gamifying a larger part of the educational curriculum has not yet been examined as extensively. This is particularly interesting for this research since motivation among Dutch students gradually decreases, also for popular subjects like English. Furthermore, Yunyongying (2014) indicates that gamifying either a part or a full curriculum could be promising in solving a well-known challenge in curricular design, arousing and maintaining a learner's interest over a longer period of time (Ibid, p.411).

Previous studies concerning *Classcraft* interventions have shown promising results when it comes to improved motivation (RiveraTrigueros & Sánchez-Pérez, 2020;), increased class participation (Rivera-Trigueros & Sánchez-Pérez, 2020) and academic performance (Rivera-Trigueros & Sánchez-Pérez, 2020; Sanchez, Young, Jouneau-Sion, 2016; Zhang, Yu and Yu, 2021). *Classcraft* has not yet been implemented for a longer period of time in academic research. The possible effects it could have on the motivation of Dutch students is therefore interesting to research.

*Classcraft* seems promising to use, not only due to previous research, but also due to its characteristics and solidity in game-design. *Classcraft* allows teachers to gamify their material through quests. It offers simplified steps which lead to an end goal which prompts teachers to think about why and how they are gamifying their teaching material. This ensures good game-design and a clear purpose.

Furthermore, *Classcraft* has an appealing interface with a fictional fantasy theme. As previously mentioned, an intriguing interface is important as it fosters relatedness according to Zhang, Yu and Yu (2021), especially since fiction is a popular topic among adolescents (Zillmann & Vorderer, 2000, p.199). In the *Classcraft* interface, participants can choose an avatar and a class; warrior, guardian, or mage. Each class has its own perks and disadvantages, obligating students to work together to maximize experience and gold gain. *Classcraft* could be considered a complex game as it allows students to level up, to follow quests and a personal journey through the material that needs to be covered according to the curriculum. Additionally, participants are rewarded with achievable and worthwhile goals; not only is the material in relation to the test covered, students are also rewarded visually with their avatar growth and a general growth gauge. This allows them to compare themselves with other classmates stimulate competitiveness.

Additionally, Zhang et al. (2021, p.16) found that the reward and punishment system in *Classcraft* encouraged learners to perform desired behaviour; they were motivated, they participated in class and their academic performance increased. Zhang and colleagues also found that motivation through gamification, in their case *Classcraft*, had a more positive effect on extrinsic motivation compared to intrinsic motivation (2021, p.17). Nonetheless, even though extrinsic motivation seemed to be addressed in particular, it was found that the students wanted to continue playing via *Classcraft*

to achieve certain status symbols. It was found that the students wanted to continue playing via *Classcraft* to achieve certain status symbols, indicating that the learners were autonomously motivated, which, according to Ryan and Deci (2005; 2017), is closely related to intrinsic motivation, illustrating that it does effect intrinsic motivation to a certain extent.

*Classcraft* is based on the principles of the SDT: relatedness, competence and autonomy. *Classcraft* offers its participants autonomy, choosing when and where to work on assignments, it offers competition via boss battles and personal scores, and relatedness by allowing participants to work in teams and to visualise the material via quests through a relatable interface. This possibly allows *Classcraft* to influence the behaviour of the participant to become more autonomously motivated. Wehmeyer and Palmer (2003) note that when people are autonomously motivated, they are more likely to achieve their goals over time because their needs are met. Those who are more autonomous in their behaviours note an increase in feelings of competence, are more motivated by their interests, experience feelings of enjoyment and are better able to show consistency in their behaviour (Barkoukis et al., 2022; Wehmeyer & Palmer, 2003).

Previous studies in relation to implementing *Classcraft* have not yet been carried out in the Netherlands: Spain (Trigueros & Sánchez-Pérez, 2020;), France and Quebec (Sanchez, Young & Jouneau-Sion, 2016) and Malaysia (Dangi & Saat, 2021). Trigueros & Sánchez-Pérez's study (2020) was a short experimental study in which they compared pre- and post-test results. Their research showed that *Classcraft* significantly improved student motivation and increased student participation in the EFL classroom. Due to this success, *Classcraft* could prove beneficial to Dutch EFL students since the participants in Trigueros & Sánchez-Pérez's study (2020) are the same age. As previously mentioned, while English is a popular subject in the Netherlands (Centraal Bureau van de Statistiek, 2022), the gradual decline in not only popularity but also in overall marks (Qompas, 2019), needs to be addressed. The OECD (PISA, 2019, 2020) found that motivation of Dutch students is low compared to the other 60 member countries, further highlighting the severity of the problem. Gamification could offer a solution regarding these motivational issues. However, most researched gamified forms are relatively short, and while the possibility of a gamified curriculum to enhance

motivation has been mentioned, it has not yet been researched. *Classcraft*, rooted in the SDT, could provide a solution and gamify the EFL curriculum.

## Methodology

In this chapter the type of research will be defined first. After that the participants of the study and the school, the Almende College Isala, will be explained more thoroughly. After which the different methods, the two questionnaires and the interview, are presented and it is explained how they were implemented. From there on the research process, the ups and downs of the intervention and the data collection, will be illustrated in more detail and this chapter will conclude with the quality assurances.

### Methods

The data gathered for this research is largely qualitative in nature and will be supported with quantitative data. A largely qualitative approach is most beneficial for this study as it provides the most detailed information regarding the students' experiences during English class. Analysing student experiences is crucial in order to be able to formulate an answer to this study's research question. How the gamification of a part of the curriculum via *Classcraft* affects four students' motivation, will therefore be measured via their experiences regarding the English classes and the gamified intervention.

To ensure the quality of this research, various methods have been used: one questionnaire, given before and after, and a semi-structured interview. This triangulation of data allows me to study the topic of motivation from multiple perspectives. This is important since motivation is a broad and fluid concept. In-depth and rich data regarding student experience is therefore necessary to be able to determine how their motivation was possibly affected and to determine what changes could be attributed to the *Classcraft* intervention.

This thesis follows most studies regarding motivation where a distinction between intrinsic, extrinsic and sometimes the concept of amotivation is made (Bernasco, 2009; Van Gool, 2017, Van der Veen & Peetsma, 2020; Vansteenkiste, 2009). To allow for an in-depth analysis, the structure of

SDT is used. Which means that to be able to analyse student motivation in more detail the students' experiences are questioned in regards to the different themes of motivation and their subthemes. This is done through the Academic Motivation Scale (hereafter AMS) questionnaire by Vallerand and colleagues (1989). The AMS questionnaire measures motivation of students in relation to their school experience. This questionnaire has been used extensively and has been validated in studies across several countries like Canada, Mexico, France, and Greece (as mentioned in Woon Chia, Wang Chee Keng & Ryan, 2016, chapter 5 by Guay, Lessard & Dubois, p.85; Vallerand et al., 1992, 1993; Izquierdo & Alonso, 2005; Fairchild, Horst, Finney & Barron, 2005, Barkoukis, Tsorbatzoudis, Grouios, & Sideridis, 2008). Therefore, internal consistency indicates Cronbach's Alpha has been validated.

The AMS questionnaire offers nuance through its 5-point Likert scale scoring in regard to a student's perspective and therefore allows me to better comprehend their thought process. The questionnaires have been enhanced with open ended questions allowing students to elaborate on their Likert scale answers on the closed ended questions. Their input allows me to verify that their answers mirror their Likert scale score, but more importantly, they provide more in-depth insight into their experience and opinions. To further complement the themes of motivation, the students are asked about their experience regarding autonomy since it is inherent to the SDT (Ryan & Deci, 2017). This is done via open-ended questions in the questionnaire.

Furthermore, to ensure the quality of the data, the students are asked several questions regarding factors that might influence their motivation for English class. These factors regard their class environment, their class expectancy for next year, their gender and their age. As mentioned previously in Chapter 2, an adolescents' age greatly impacts their ability to function as their rational brain is not yet fully developed (Compernelle, 2022). Their gender is also asked as there is a proven difference in brain development between boys and girls (Ibid). Therefore, to be able to distinguish between the adolescents' experiences and the reason behind their motivation, it is paramount not to only look at the results regarding the motivational themes, but also to these additional factors. More information about these additional factors will be given at a later point in this chapter.

The experiences of the students are considered to be the main source of information for this research's purposes. The quantitative data is primarily used to see where possible change has occurred and to provide visual support.

To facilitate the themed analysis of the qualitative data, all Likert scale data will be presented using percentages and are visualised via bar charts (Jamieson, 2004, p.2, Maxwell, 2010). To counter possible distortions, like the *acquiescence bias*, "agreeing with statements as presented", the qualitative data from the experiences of the students is leading. Especially in relation to the neutral option, as students who chose neutral could still have had a positive or a negative experience. Furthermore, they could also indicate which factor contributed to their decision to choose neutral. Another possible distortion is the *social desirability bias*, I am aware of my position as the teacher of the EG and therefore an interview protocol has been used. Additionally, the appreciation of honest feedback from the students has been frequently stressed with the insurance that it will not affect my point of view as their teacher and that what is shared will not be used against them.

To provide further transparency, the transcripts of the interviews are shared in Appendix 4. The interview is semi-structured and based on the interview protocol refinement (IPR) framework by Castillo-Montoya (2016) to ensure congruency with other qualitative studies in which the IPR is used (Ibid, p.811). The protocol is designed to ask questions about a students' experience in regards to the primary factors of this research and the secondary factors which will both be defined in more detail later in this chapter. The protocol allows me to adhere to the questions and to prevent corruption of data due to social talk., member checks were conducted during the interview. I did so by summarizing their input and questioning them whether or not I correctly understood them. The Interview Protocol can be found in Appendix 3.

To conclude, the *Classcraft* intervention spanned ten consecutive school weeks. This meant that the intervention took long enough to function as a substitute school period and for student to be able to formulate an opinion about *Classcraft* and note a possible change in their motivation.

## Participants

The research is conducted among the students of all havo 4 classes at the Almende College Isala in Silvolde, in the Netherlands. Almende College Isala (hereafter indicated as Isala) is a school offering education to havo and vwo students. A total of 138 students, ages 15 - 17, participated in this study. These students were sat in 6 different classes, 4 of which were the control group, totalling 86 students. The other 2 classes were the experiment group and totalled 52 students. The control group were thought by other teachers, whereas I was the teacher for the experiment group.

### The Control Group and the Experiment Group

The participants of the current research study are all students between 15 and 17 years old. Permission regarding the participation is asked of the parents for those below 16 and those above 16 are asked directly via the questionnaires. The permission forms provided by the ETC are used.

All havo 4 students (N138) were asked to participate with the questionnaires and the initial response rate (N86/52) is therefore relatively high. The Control Group (hereafter CG) spanned four separate classes, each class counted 20-29 students and was taught by two different teachers. The response of the CG was initially high but a change in N was noted in the post-questionnaire (N86/58).

The Experiment Group (hereafter EG) spanned two classes, each class counted 27 or 28 students and were taught by myself. The N of the EG also changed and showed a lower response in the post-questionnaire (N52/28).

To reduce misinterpretations of the results and to enhance transparency, it is important to mention that a change has been noted in N between the pre-questionnaire and the post-questionnaire. The change in N was only noted after the post-questionnaire was retrieved. The results showed a decrease in the amount of participating students of approximately 50%. Unfortunate circumstances seemed to be the reason of the low response-rate. Viewing the material and speaking to students during the interview and in hallways, it seemed that students did not answer as they were going to leave school and study at a vocational training school (mbo), were going to re-do havo 4, or did not think it was necessary to fill it in as they were not particularly motivated or demotivated during English class. Luckily, after some persuasion, I was able to convince several students to partake in the

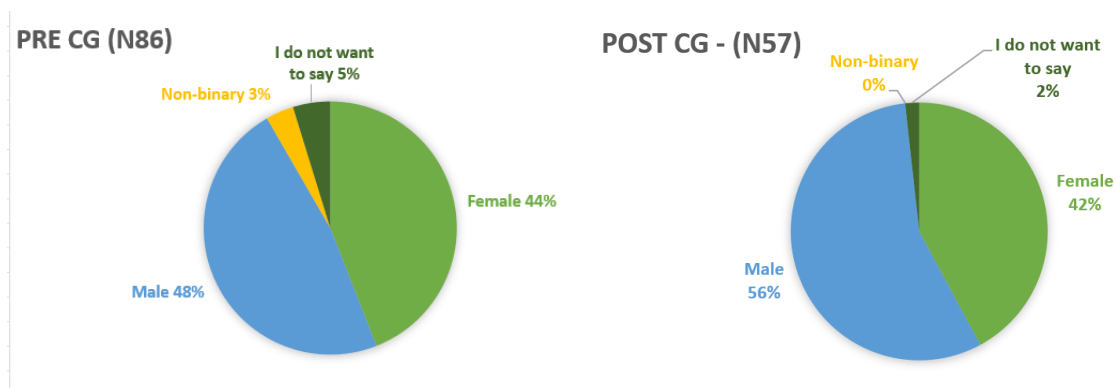
interviews. These students are able to fill in the missing data as I was able to interview students who were going to mbo or were going to re-do havo4. While their results are not present in the figures of the post-questionnaire, as I would have liked, their input and representation is reflected through the interviews. Furthermore, to enhance clarity in this chapter and later on in the Chapter 4 in which the results shall be presented and analysed, the number of participants (N) will be added to all figures.

#### Participants' demographic

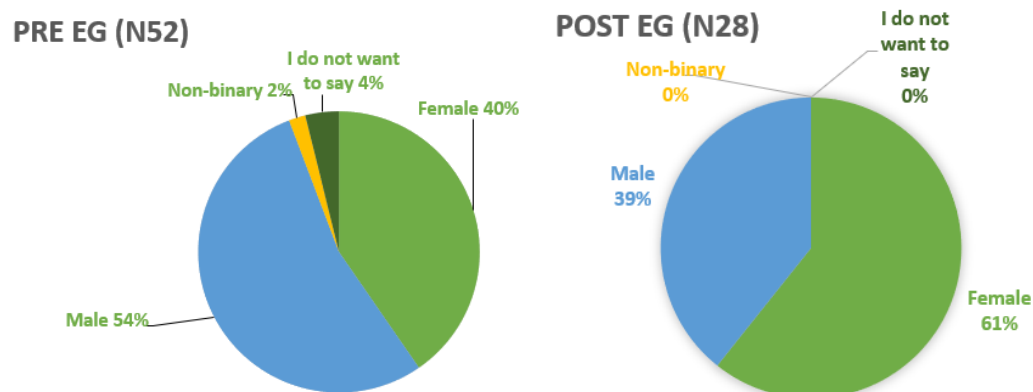
Gender effects motivation for school, as boys tend to be less motivated compared to girls (Compernelle, 2022) and girls seem to prefer English in comparison to other subjects (Qompas, 2019). Figure 4 shows the demographic details regarding the gender division of the CG pre- and post-experiment. The gender division of the EG are shared in figure 5.

**Figure 4**

*Control Group: Gender Division*



*Note.* Figure 4 shows that the gender division remained largely comparable with a slight increase in male participants, this could possibly result in a slight negative tendency in the post results (Compernelle, 2022).

**Figure 5***Experiment Group: Gender Division*

*Note.* Figure 5 shows an increase in female participants of 21% and a decrease of 15% in the amount of male participants. The representation of the male participants of the Experiment Group has been taken into account in the interview section, but could influence the results to be more positive in the post results (Compernelle, 2022).

### Secondary factors

There are several secondary factors that might influence motivation: the participants' level of proficiency in English, their expectancy or ability to advance to have 5 and the school environment they function in.

#### *Level of proficiency*

The participants' level of proficiency in the English language differs from A2 to C1. These levels are based on the European Framework of Reference and are leading in Dutch education to indicate a students' proficiency (Stichting Leerplan Ontwikkeling, 2021). Their proficiency level has been measured at the start of the school year via a reading exam and prior to the experiment via watch and listen test by the Centraal Instituut voor Toets Ontwikkeling (CITO). The level of English proficiency within the group exhibits a remarkably diverse range, which might be attributed to the covid-19 pandemic during which schools allowed their students to advance in levels without them meeting the set requirements of proficiency (Nederlands Jeugdinstuut, 2022; Trimbos-instituut, 2020; Weeda, 2023). The difference in level of proficiency could also be ascribed to a students' interests. I have noted that those who are more proficient often play games or enjoy watching English

spoken content on platforms like Netflix, YouTube, TikTok and Instagram (Adzic, Al-Mansour, Naqvi & Stambolic, 2021).

#### *Environment*

Another possible factor that might influence participants' motivation is their environment. Environment is defined here as the class that they are in now and specifically how they perceive their class in regards to safety, getting along with each other and concerning working together. This possible factor is of importance as a class is a social construct. Compennolle (2022) stresses the extreme sensitivity of adolescents to their social context, which makes their class a possible important factor that could influence their motivation. It is important to examine this to some extent to be able to clarify the significance of *Classcraft* regarding their motivation. However, since this data could be influenced by the *Classcraft* intervention, it will be analysed in Chapter 3.

#### *Class expectancy*

The final possible factor that is considered in this study and that might affect a students' motivation concerns their expected placement in the following year. Class expectancy is a stress-inducing topic for many students often due to the influence of parents and the school (Nederlands Jeugdinstituut, 2022; Trimbos-instituut, 2020; Weeda, 2023). Students in havo 4 have the possibility to progress to havo 5, progress to vwo 4, redo the school year if their marks are not sufficient or continue their educational career at a vocational training school.

### Data Collection

The data collection consists of the results of the pre questionnaire (N86/52), the post-questionnaire (N58/28) and interviews (N17). The data collected is largely qualitative in nature as the experience of the students relating to why they participate, do certain tasks. The questionnaires are distributed prior the intervention and after. The post-questionnaire is slightly altered to acquire specific data regarding the *Classcraft* intervention among the Experiment Group participants. The interview is used to complement the data from the questionnaires and to be able to further analyse students' experiences regarding motivation in the Control Group and the Experiment Group.

## Questionnaire

The AMS was chosen to function as a base for the current study's questionnaire as its questions are embedded in the Self-Determination Theory (Vallerand et al., 1989). This is also central to the current study. Through the AMS questionnaire, amotivation and the several subthemes of intrinsic and extrinsic motivation can be measured. This is done via a 5-point Likert scale which ranges from 5 (totally agree) to 1 (totally disagree). The questions corresponding with the several themes and subthemes of motivation have been translated to Dutch to ensure maximum comprehensibility for the Dutch students. Furthermore, the questions have been slightly adapted to match the topic of English class instead of motivation in relation to 'school'. The 5-point Likert scale has only been altered slightly to enhance comprehensibility by translating its options to Dutch.

As mentioned previously, the Likert scaled questionnaire mainly provides quantitative data to which open-ended questions have been added to elicit explanations and examples. This way a student can elaborate on their Likert scale score. The Likert scale scores allow comparisons to be made more easily and the open-ended questions will allow me to provide in-depth meaning to these comparisons.

Questions regarding autonomy have also been added to the questionnaires to examine a students' experience and perception of autonomy and self-determination. Especially since autonomy is considered to be a psychological need that needs to be met for -intrinsic- motivation to flourish. Self-determination happens after that, which basically means that a person is able to make decisions to determine her or his own actions. In earlier approaches autonomy has not specifically been measured in relation to motivation and Dutch have 4 students.

Finally, a question concerning the topic of gamification has been added (Question 17b). It asks the participants if they want more gamified work forms and why, so they could give examples or share their experience. This question makes it possible to examine if they would like to have more gamified EFL work forms and especially why. Their experience and reasons as to why they would like to have more, or less, gamified EFL work forms is important as it could further explain why they feel motivated. Additionally, their examples give an indication of the kind of gamified work forms they already have an experience with and whether they liked those or not.

### *The pre-questionnaire*

The introduction to the questionnaire mentions the topic of the current study without going into too much detail. Providing the students with some information concerning the study and why I need their help will give them an incentive to answer more truthfully. Furthermore, aside from the survey introduction, the teachers have repeated the anonymity of the study prior to the distribution of the questionnaire to further encourage honesty.

Prior to the distribution of the pre-questionnaire, a trial run was conducted among some vwo 4 students. They were chosen as vwo 4 is comparable to havo 4 based on their age. From this trial run it appeared that some statements were unclear and some words too difficult to comprehend. These were adapted so all havo 4 students would be able to better participate and, consequently, provide better and richer data. All participants receive the same pre-questionnaire to be able to establish a baseline. The pre-questionnaire can be found in full in Appendix 1.

### *The post-questionnaire*

The structure of the post-questionnaire is highly comparable to the pre-questionnaire. The main difference with the pre-questionnaire is that a question about their definition of motivation was added. This allows me to compare their definition to the overall results and to examine if their definition of motivation seems to be largely intrinsic or extrinsic in nature. This in turn can be compared to the gamification results and the *Classcraft* outcome in relation to their experiences. It basically allows me to check for discrepancies. Furthermore, a section regarding their *Classcraft* experience was added in the post-questionnaire for the EG. The post-questionnaire can be found in full in Appendix 2.

### *Coding and analysis*

The reason to gather all these experiences is to be able to answer the main question, therefore all the data received from the open-ended questions will be coded according to the motivational themes of motivation by SDT, autonomy and gamification. Furthermore, attention will be paid to the secondary factors to be able to distinguish data in regards to importance.

To facilitate the themed analysis, a hybrid approach has been used in the coding process. The primary themes, intrinsic motivation, extrinsic motivation, amotivation, autonomy and gamification, together with the value positive and negative, have been used as the a priori codes. During the line-by-line coding, additional new codes emerged. These aided in the distinction of additional possible factors in the students' reasoning which ultimately came to represent emerging patterns. A codebook was used to keep track of the definitions of the assigned codes and categories and to limit deviation since the amount of data is extensive.

### The Interview

As previously mentioned, it was difficult to gather enough students to partake in the interview. Eventually I was able to gather 18 students who were willing to participate. The aim prior to the start of the experiment was to speak with 9 students from the CG and 9 from the EG. The intention was to select these students based on their gender, their age and their expectancy in relation to their class next year. The students' average mark was also a part of the selection process as a secondary criterium. These marks are indicators of their level of English and will show how students with different levels of proficiency experience English class. While I was unable to select students based on their applications, the students willing to participate did meet the selection criteria. This allowed me to use the data to create a representative image of the position of the *havo 4* classes at Isala.

The interviews were conducted after the post-questionnaire. The questions are experience based and ask about perceived increase or decrease or stagnation in their motivation and perceived levels of autonomy.

### The *Classcraft* intervention

Through *Classcraft* it is possible to submerge the classroom setting into a role-playing environment. *Classcraft* is an online platform in which students can form teams, go on quests, customize their avatars, train their pets, earn money and experience points and defeat bosses. First I will give an overview of the curriculum after which the experience of *Classcraft* will be described.

### Teaching method *Ready for First*

The teaching method that is being used to study English in havo 4 is *Ready for First* by Macmillan. The *Ready for First* teaching method consists of a student book and a workbook, both fully in English. A students' school year starts with working towards the first test by going through the topics and the assignments of unit 1 & 2. After that the students work towards the test of unit 3 & 4, and in the final period of the school year, the students finish with unit 5 & 6. In this intervention the focus is on unit 5 & 6.

Since these tests and units are the same for every havo 4 class it ensures the comparability between the results. Furthermore, because the students are used to working with this material and already know what the test looks like, it is no surprise for them. The only thing that changes in that regard is that unit 5 and 6 is now offered to them via *Classcraft*. Furthermore, to minimize any possible contamination of the data, only the assignments from unit 5 and 6, the accompanying handout and workbook are used. There are no extra assignments added like writing or reading, just in case it could influence a students' motivation. A student might feel more comfortable doing reading assignments or might like a writing assignment. Furthermore, this would be difficult to compare as not all 'extra-curricular' material is used by all the teachers of English at havo 4.

### Implementation

To ensure comparability between the CG and the EG the same lesson structures were maintained. This means that all lessons roughly followed the same structure. A short introduction about the topic of the lesson is given first, then some form of instruction is given, after which some assignments or some other work form regarding speaking, writing or reading are done to practice for the test week in week 25/26. Whenever the CG would continue to work from the *Ready for First* teaching method to prepare for the test of unit 5 & 6, the students from the EG would work via *Classcraft*. The EG would do the exact same assignments as the CG since these assignments were transported into the *Classcraft* environment. Furthermore, the students of the CG and the EG would receive a comparable instruction as they were all working on unit 5 and 6.

The assignments of Unit 5 and 6 were implemented in the *Classcraft* environment using quests. In these quest formats a story is told, to which exercises can be attached to and students receive rewards upon completion. This story could either be written by yourself or provided by *Classcraft*. In order to mitigate potential influence stemming from my role as the teacher, since I am familiar with their personal interests, a story provided by *Classcraft* has been used. If I were to write a story based on their personal interests, their motivation could be influenced and it will take away from the aim of this research. The *Classcraft* story is based on Social Emotional Learning (SEL). SEL aligns with the values of SDT (Kurdi et al., 2021).

### Classcraft

#### *Avatars, rewards and punishment*

At the very start of a students' story, a student chooses which class their avatar belongs to. The classes available are the Warrior class, the Mage class and the Guardian class. Each class has specific powers and characteristics. So the Warrior class, as the name implies, is a very strong class to choose in regard to their defensive abilities. A Warrior is able to absorb damage either they or their teammates receive. A player, a student, could receive damage when rules of the classroom are not adhered to or, for example, if they lost a boss battle. Damage equals to losing life points, these life points are shown in the form of hearts.

The Mage class allows a student to be on the offense side. Choosing a Mage allows a student to gain power to bestow experience points on themselves and their teammates but also to activate bonus power quicker compared to the other classes. A downside to this class is that they have less hearts compared to the others and therefore do these players need more protection from their teammates.

The last class is the class of the Guardian, also called the Healer class, Guardians have the ability to restore hearts that players lost. This class is quite a strategic class: if the powers are used efficiently, students can not only protect their team but they can also ensure their survival concerning a boss fight.

The Gamemaster, aka the teacher, determines the amount of money, crystals and experience points per reward. The Gamemaster also determines the level of punishment. This feature is especially useful in relation to classroom management. As previously mentioned, the students are able to level-up through achieving experience points. They cannot lose experience levels. If, however, a student reaches zero hearts the student has fallen. A fallen student needs to do an extra assignment to be able to be 'revived'.

In Classcraft as students earn crystals and level up, they are able to choose and develop certain powers. These powers are what teachers would consider 'classroom privileges'. By activating a power a student is able to skip the homework assignment once, could be allowed to go home 5 minutes earlier, is able to skip a turn, etc. These privileges are also previously determined by the Gamemaster.

#### *Themes and quests*

After the students have chosen a class for their avatar, customized their avatar with the already available wardrobe and have picked a pet, they will then start with an introduction quest. This quest guides them through the Classcraft environment and explains briefly how everything works. After this quest they can start with the quests provided by the Gamemaster.

The quests are episodes from a SEL story and consist of 5 steps each. Every step is a part of the story after which several unit 5 & 6 assignments are given. The student hands in the assignment by uploading a picture of their notebook in which they wrote their answers or by uploading a Word file which contains their assignment. The duration of the quests, and therefore the game, is determined by the Gamemaster.

Classcraft does not come with a fixed theme aside from its fantasy setting. Therefore a Gamemaster is able to add their own theme to the quests they give their students. In River-Trigueros and Sánchez-Perez's research (2020) the theme of Game of Thrones was used because of its popularity. In my study no such theme was used to keep the results as clear as possible. Motivation on the basis of a students' preferences regarding popular shows is not what is being tested in the current study. However, since the students do work in teams, it is important that those teams have names. To pick a theme that would not take away from Classcraft and not be associated with popular topics or

series, the names of English speaking peoples were chosen with a slight nod to their accent. The teams were named ‘The British’, ‘The Irish’, ‘The Welsh’, ‘The Scots’, ‘The Aussies’, ‘The Texans’, etc. By doing so the theme of the Classcraft environment of this intervention remains close to the concept of English class.

### Research process

The pre-questionnaire had a relatively high level of response and the open ended questions were answered abundantly. The adolescents seemed eager to share their experiences regarding their motivation for the English lessons providing rich and ample data. In contrast to the pre-questionnaire, as previously mentioned, the response rate of the post-questionnaire was lower than expected. However, the participants that answered did comment plentifully, combined with the amount of data received from the interviews, a representative view of a change in motivation could be illustrated.

### The Classcraft intervention

During the *Classcraft* intervention a problem with logging in arose. Most students were able to log in on *Classcraft*, start the introduction quest and choose and customize the appearance of their avatars, some students were not able to log in. After a couple of lessons it turned out that Classcraft did not function properly with Safari, the main Internet browser on their iPads, or the Classcraft app itself. The only browser that worked well appeared to be Chrome.

### Data collection

While viewing the data of the pre-questionnaire it appeared that some students in both the CG and the EG did not fully understand some statements. I believe some of these can be ascribed to lack of motivation to read as those students showed inconsistencies in their answers across all the statements. I.e. students voting positively and later negatively on questions relating to theme amotivation. Nevertheless, changes were made in the post-questionnaire to enhance comprehensibility as some students seemed to have misinterpreted question 17. Question 17 stated “Ik wil **meer** spelvormen tijdens de Engels les.” [I want **more** gamified work forms during English class.]. Some students mistook ‘spelvormen’ for ‘spelling’. Therefore ‘(niet spelling!)’ was added after the ‘spelvormen’ to prevent the same misconception from happening.

## Results

In the preceding chapters, the concepts of motivation have been explored in relation to SDT, a prominent theory of motivation, and gamification in order to find out if a gamified curriculum could affect motivation in Dutch. In this chapter will present the findings that emerged from the in-depth qualitative analysis discussed in Chapter 3. The aim of this chapter is to deconstruct the details to student motivation, and by doing so revealing the underlying themes, patterns and factors that have been found in the experiences shared by the participants.

As a reminder, the objective of this study was to explore how gamifying a part of the curriculum could affect student motivation in havo 4. *Classcraft* has been used to gamify a part of the EFL curriculum at Isala. The intervention lasted 10 weeks. The students received the first AMS-based questionnaire (see Appendix 1) prior to the intervention and they received the second questionnaire (see Appendix 2) after the *Classcraft* intervention. The interview protocol (see Appendix 3) has been used to support the interviews, which were held after the invention. The transcripts of the interviews have been added to the Appendix as well (see Appendix 4).

This chapter is structured as follows: Section 4.1 provides an overview of the participants' demographic profiles regarding class expectancy, class environment, autonomy and class participation during the EFL class. Subsequent sections delve into the themes and subthemes of the SDT and present the experiences and perspectives of the participants. Each theme is divided into its respective subthemes and is supported by the quantitative data from the questionnaires. The quantitative data represents the participants' Likert scale opinions and will be visualised as percentages in bar charts (Maxwell, 2010). Each subtheme is accompanied by quotations to provide authenticity and to better translate the presented findings.

The findings of the students from the CG will be discussed prior to the results and findings of the EG. Allowing for transparency in the data and to ease comparison.

### Participant demographic

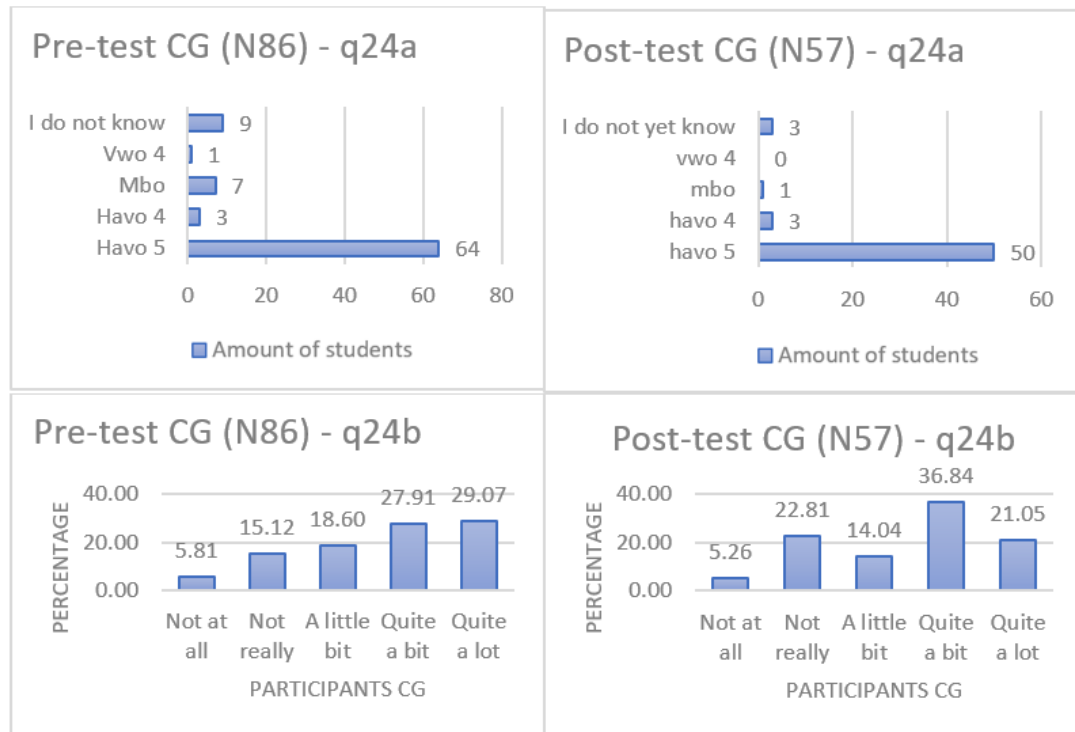
The participants' demographic has already been discussed to some extent in Chapter 2. Chapter 2 covered the participants' age and gender. In this section more data will be provided regarding the factors that might influence their motivation. Data regarding their class expectancy will be shared first, then data regarding their class environment, followed by autonomy and participation.

### Class expectancy

Class expectancy has, as previously mentioned in Chapter 2, the potential to influence student motivation as it directly impacts their ability to progress in their educational career. Figure 6, for the CG, and figure 7 for the EG, visualize which year the students expect to go to after havo 4 (q24a) and how that influences their motivation (q24b).

**Figure 6**

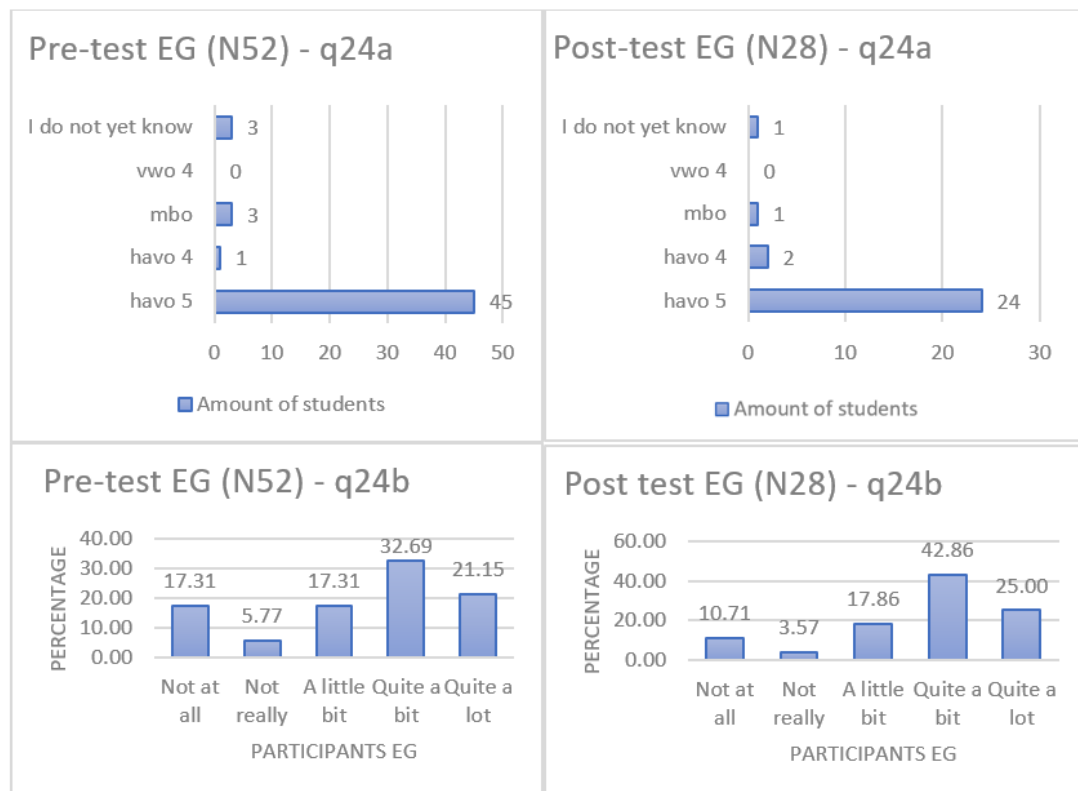
*Control Group Class Expectancy (q24a) and How it Affects Their Motivation (24b).*



*Note:* The data from figure 6 changes quite significantly between the two questionnaires. Especially the ‘a little bit’ and the ‘quite a lot’ options decrease a lot, indicating that class expectancy does not influence motivation as much as it did halfway through the third school period during the first questionnaire.

**Figure 7**

*Experiment Group Class Expectancy (q24a) and How it Affects Their Motivation (24b).*



*Note.* The data of the EG in figure 7 shows a slightly different development. The decrease in the negative values show an uptake in the pressure students feel and how that affects their motivation.

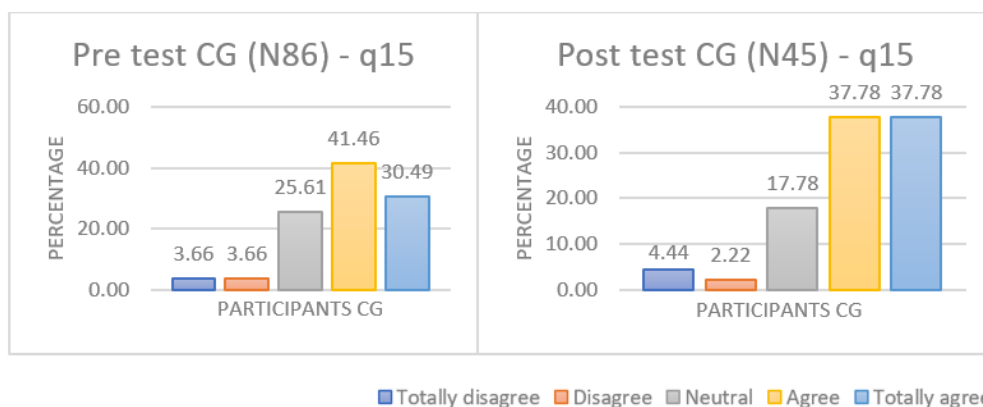
### Class environment

A safe class environment is important to be able to learn (Inspectie van het Onderwijs, n.d.). This data was especially added as one of the EG classes seemed not to get along well with each other based on the personal experience of the teacher. Furthermore, the *Classcraft* intervention might influence their class environment as it takes place in an online environment. In the *Classcraft* environment students of the EG might interact with each other differently.

Data about safety in regards to class environment (q15) is shared in figure 8 for the CG and in figure 9 for the EG.

**Figure 8**

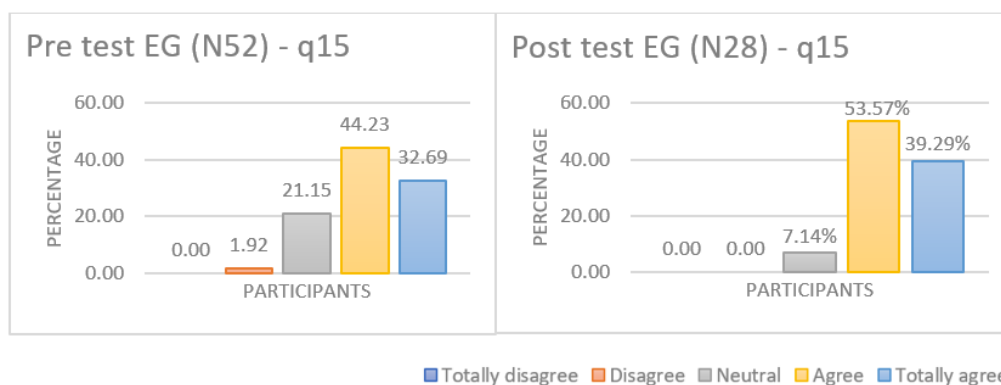
*Control Group: Feeling Safe in Your Class*



*Note.* In figure 8 feeling unsafe among classmates of the CG seem to decrease as students report feeling safe among their peers. However, a slight increase in totally disagree does indicate that several students reported feeling less safe near the end of the school year.

**Figure 9**

*Experiment Group: Feeling Safe in Your Class*



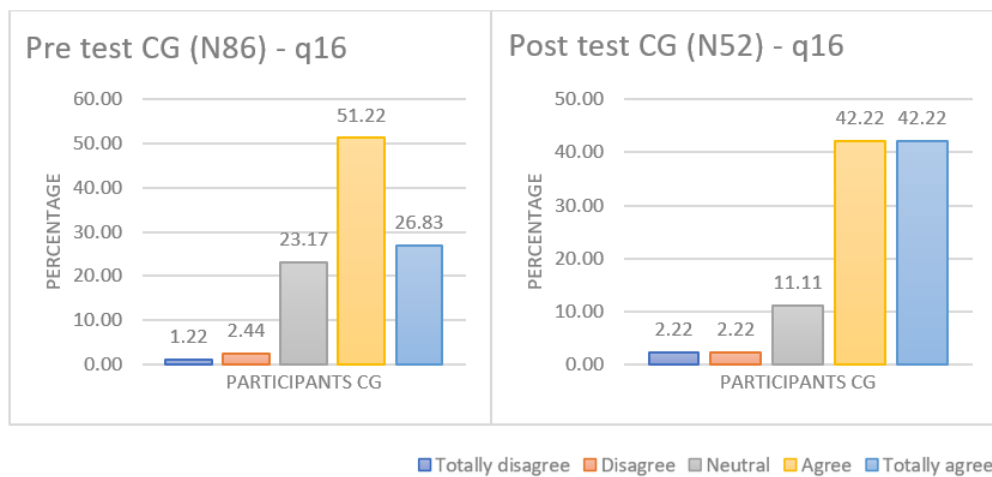
*Note.* In contrast to the perspective of the teacher who signalled an unsafe class environment, the results from figure 9 show a positive score. Students seem to feel safe to very safe. Some students do report a negative score but none voted totally disagree.

In comparison to the data from the CG the EG is feeling safer among their peers. Furthermore, the post results show a positive change in which the neutral option decreases significantly and disagree disappears all together.

Data concerning the ability of the participants to get along with each other (q16) is shared in figure 10 for the CG and in figure 11 for the EG.

**Figure 10**

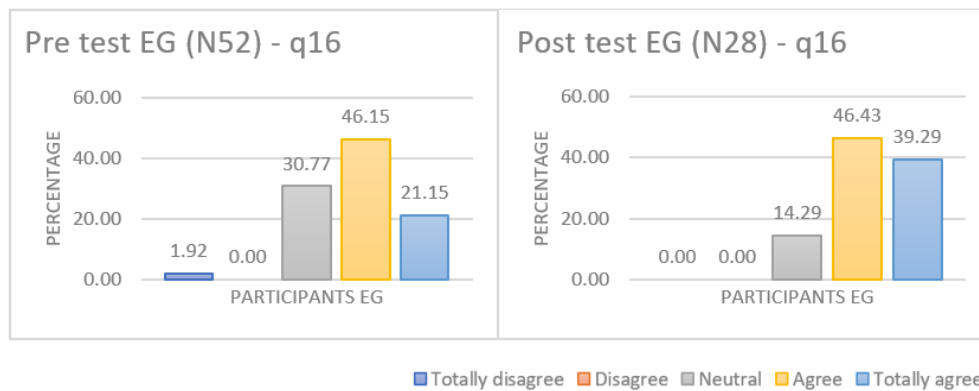
*Control Group: Getting Along with Each Other (q16)*



*Note.* Figure 10 shows a positive change in the CG, especially in regards to the decrease in neutral and the significant increase in totally agree. It is interesting to see that the percentages in regards to totally disagree and disagree stay comparable.

**Figure 11**

*Experiment Group: Getting Along with Each Other (q16)*

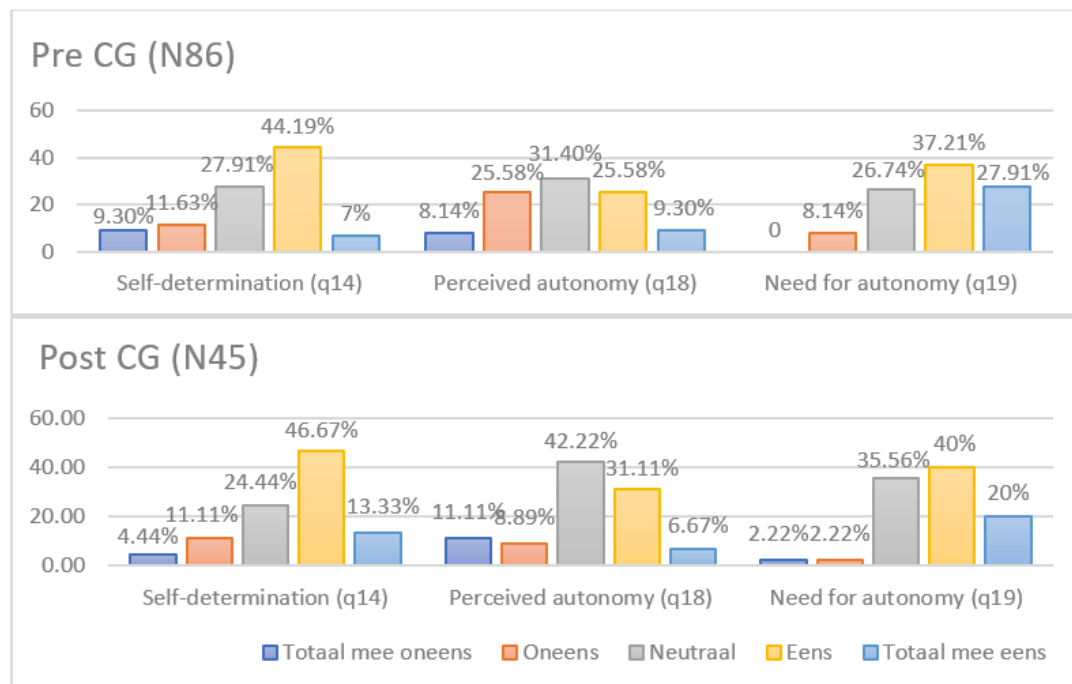


*Note.* In figure 11 the EG develops a positive change in regards to getting along with each other. The significant decrease in neutral, together with the significant increase in totally agree and the disappearance of totally disagree signals this.

## Autonomy and participation

### Autonomy

Figure 12 shows the results of the CG regarding autonomy. These present self-determination regarding ownership of their learning progress and portray the level of self-determination in relation to asking a teacher for help when necessary (q14). The middle shows how the student perceive autonomy in their class (q18) and the graphs on the right side show the need students have in relation to wanting more autonomy (q19).

**Figure 12***Control Group: Autonomy*

The ultimate form of autonomy according to the SDT (Deci & Ryan 2017) is portrayed on the left side of figure 12. Participants take ownership over their learning process when they ask the teacher for help when they find it necessary (q14). In the CG students felt less hesitant to ask the teacher for guidance closer to the end of the school year. Indicating either an increase in self-determination due to a wish to understand the material or a possible influence of the factor of class expectancy and needing sufficient marks.

While the post results indicate a positive change, the participants gave mixed accounts when they were asked how they currently perceive their level of autonomy during English class. Two classes from the CG were taught via a strict structure of instruction, after which mandatory assignments followed. They reported feeling less autonomous, “we moeten altijd doen wat er gezegd wordt” [We always need to do what is being said.] (q18), compared to the other two classes that were being taught in a less strict manner.

These same two classes reported experiencing a strong guide from the teacher, “Je moet gewoon doen wat er gevraagd wordt.” [You must do what is being asked of you.] (post CG, q18), and expressed frustration regarding a lack of assignments of a different proficiency level, “Omdat ik niet

het werk krijg wat ik wil doen. Ik heb al 4jaar voor alternatieve leerstof gevraagd omdat Engels te makkelijk is.” [Because I do not get work I want to do. I have been asking for alternative material because English is too easy, for four years.] (q18), as main factors for their negative score. The results of the other two CG classes stayed the same.

The need for autonomy concerning the wish of participants to work on their own (q19) is shown on the right side of figure 12. The experiences of the CG students seem not to have changed significantly during the 10 week period. Participants reported a need for limited instruction and preferred to have more time to work on their own, “Ik hoef niet al te veel uitleg en daarom is het fijn om zelfstandig te werken.” [I do not so too much instruction and that is why it is nice to work on my own.] (q19). Participants often found the instruction too long, “Uitleg duurt lang en als ik het al snap wil ik graag door werken” [Instruction takes too long and if I already understand it, I want to continue.] (q19), and, “Ik vind het veels te saai om de hele tijd naar uitleg te luisteren” [I think it is way too boring to listen to instruction the whole time.] (q19), or note their proficiency in English as a reason why they prefer to work on their own, “Ben goed in engels” [-I- am proficient in English.] (q19).

The results of the EG, shown in figure 13, show a significant positive change in perceived autonomy and their need for autonomy.

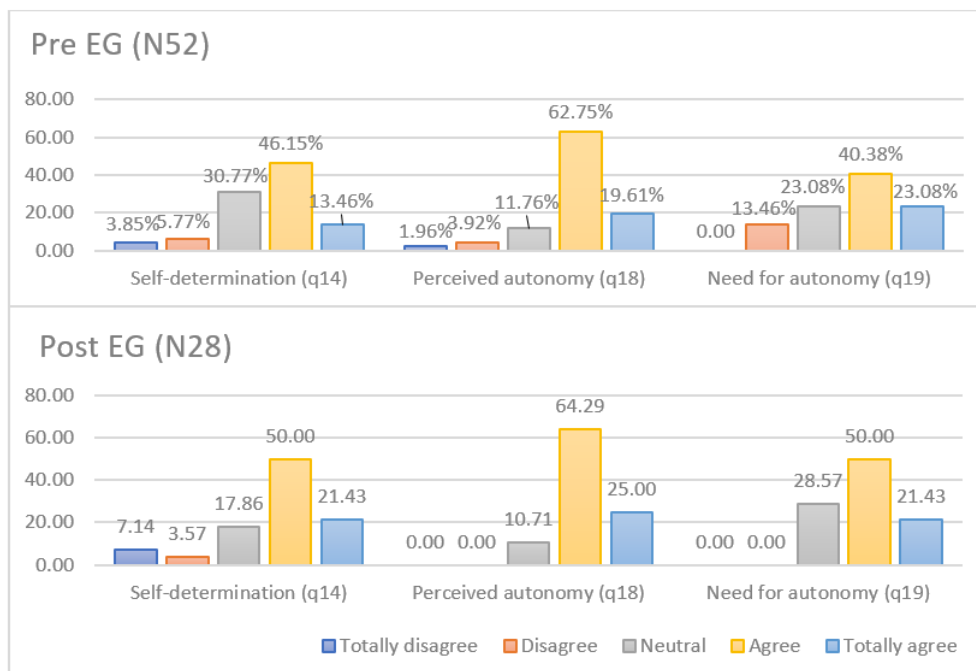
**Figure 13***Experiment Group: Autonomy*

Figure 13 illustrates that self-determination increased more compared to the results of the CG (figure 12). This indicates that the students perceived more self-determination and ownership over their process as they more frequently asked for support. Some students noted receiving choice but struggled due to a lack of proficiency, “de docent geeft veel keuzes maar dit is niet altijd fijn als je eigenlijk alles niet snapt” [The teacher offers many options but this is not always nice when you do not really understand everything.] (q19)

The most compelling results of figure 13 relate to perceived autonomy and the need for autonomy in which the negative values have been erased completely. The comments in the post-questionnaire indicate a high preference to work on their own and their needs seem to be met, “Ik vind dat er altijd wel genoeg is om te doen” [I think that there is always enough to do.] (q18). Most participants indicate the options and difference in assignments, “We krijgen vaak meerdere werkbladen waaruit wij kunnen kiezen” [we receive multiple worksheets to choose from.] (q18), and the autonomy *Classcraft* offered as reasons why they felt their needs were met, “Je kon werken

wanneer jij zin had” [You could work when you felt like it], “Je kan makkelijk zelfstandig werken en het is leuk om mee te werken” [It is easy to work on your own and it is fun to work with].

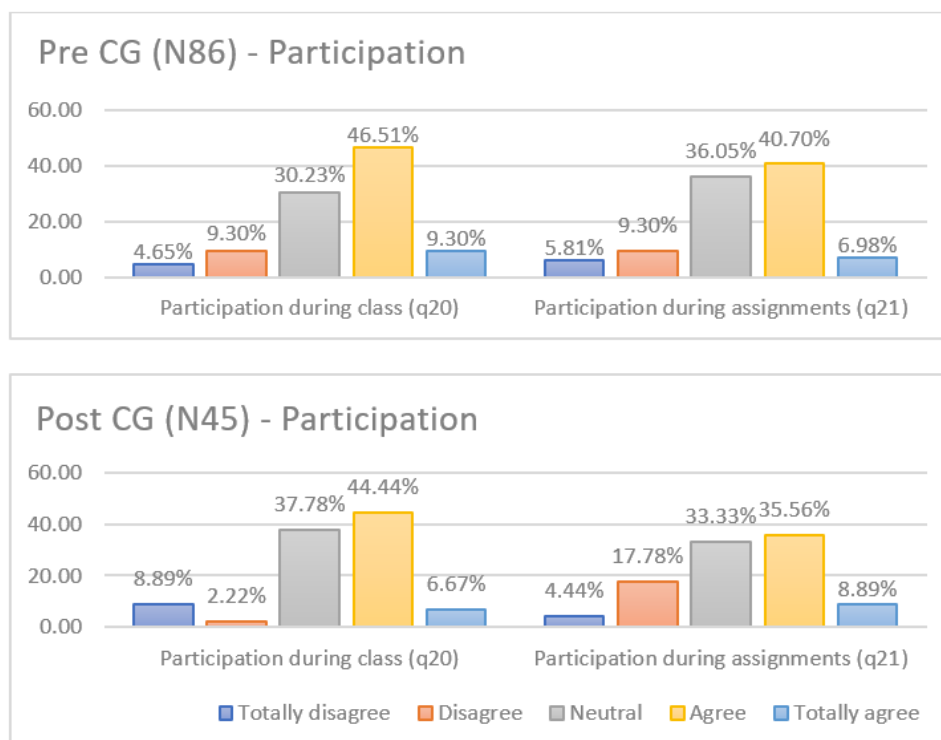
The interviews gave some further insight, while most students preferred to work alone and appreciated the autonomy *Classcraft* offered them, a few students mentioned to sometimes experience too much autonomy. They explained to need more guidance and reported to ask the teacher for support more frequently.

*Participation*

To be able to determine if the gamification intervention via *Classcraft* has had a possible effect on the motivation of the participants of the EG, how the students participated in class and how they participated during assignments was asked. Figure 13 shows the results of question 20, “Ik vind dat ik goed mee doe met de uitleg tijdens de Engels les.” [I believe I participate well with the instruction during English class.], and question 21, “Ik vind dat ik goed werk aan de opdrachten tijdens de Engels les.” [I believe I work well on the assignments during English class.].

**Figure 14**

*Control Group: Participation*

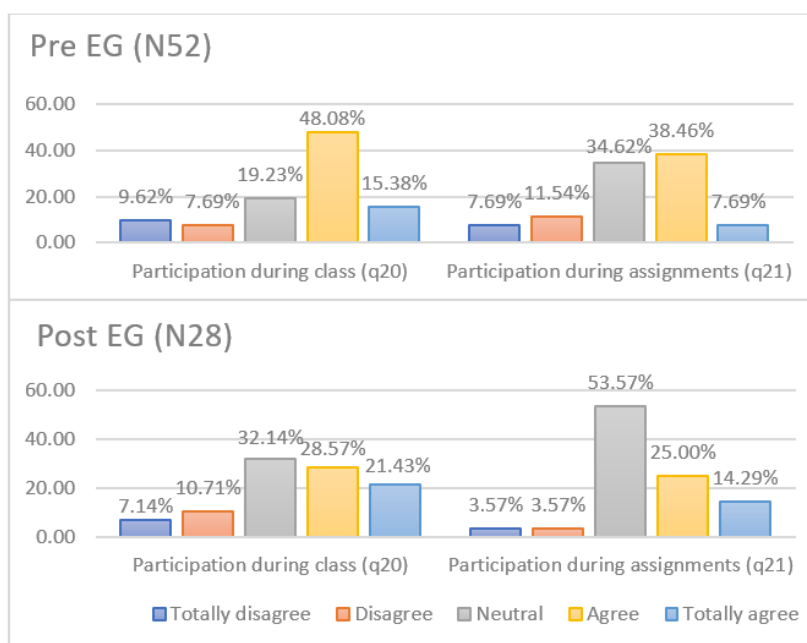


*Note.* The results regarding participation during class shows a slight decrease in participation during class and a mixed image concerning working well on assignments.

Participation from the EG, shown in figure 14, shows a divided image regarding participation during class. Even though totally agree increases with 6.05%, the significant decrease in agree of 19,51% shows a negative development.

**Figure 15**

*Experiment Group: Participation*



*Note.* The results regarding participation during assignments is generally positive. While q21 shows an overall positive outlook, an increase in neutral by 18.95% to 53.57%.

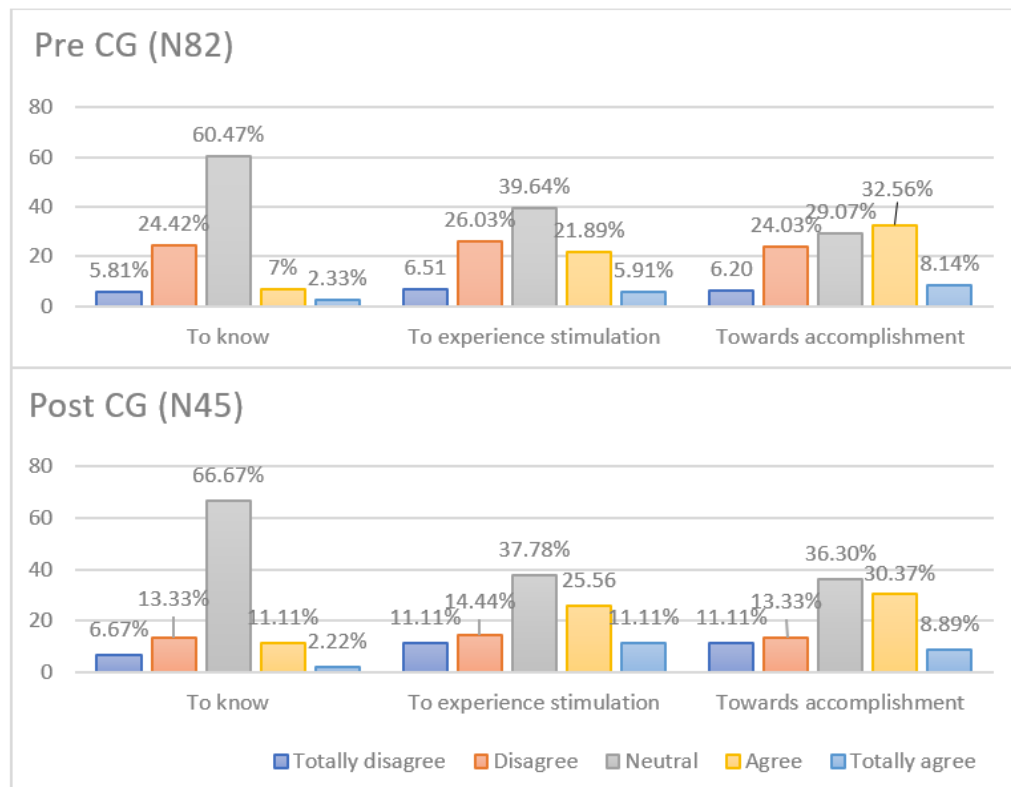
### Theme 1: Intrinsic Motivation

The theme intrinsic motivation has been divided into three subthemes (Ryan & Deci, 2007): to know, to experience stimulation and towards accomplishment. Intrinsic motivation concerning to know is about the pleasure someone experiences when it comes to learning new things. Intrinsic motivation relating to experience stimulation is about experiencing pleasure about a certain topic, in the case of this study it is the topic English. Intrinsic motivation towards accomplishment is about being better than the past self.

In the following figures, the results regarding the subtheme to know are presented on the left side. These results show the opinions regarding closed question 1, “Ik voel mij vrolijk wanneer ik iets nieuws leer tijdens de Engels les.” [I feel happy when I learn something new during English class.]. The results regarding the subtheme to experience stimulation, are presented in the middle. The results are the combined answers to closed question 2, “Ik vind de Engelse les leuk.” [I like English class.] and closed question 5, “Omdat voor mij Engels leuk is.” [Because to me, English is fun.]. The results of the third subtheme, towards accomplishment, are presented on the right side. These are the results from the combined questions 3, 7 and 10. Closed question 3, “Ik voel mij goed wanneer ik het beter doe dan de vorige keer.” [I feel great when I do better than last time.], closed question 7, “Ik voel me gemotiveerd om goed mee te doen omdat ik plezier ervaar wanneer ik een hoger cijfer haal dan eerder dit jaar.” [I feel motivated to participate because I experience pleasure when I receive a higher mark than earlier this year.] and closed question 10, “Ik vind het leuk wanneer ik bezig ben met het begrijpen van een moeilijk onderwerp.” [For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.]

#### Data Control Group

The findings in figure 16 illustrate the opinions of the participants of the CG concerning the subthemes of intrinsic motivation. These results will be discussed in their respective subtheme.

**Figure 16***Control Group: Intrinsic Motivation**Subtheme 1: To Know*

Regarding the findings of the subtheme to know in figure 16, the increase seen in the results concerning neutral and agree and the decrease in disagree show a slight positive change.

Regarding general participation, a frequently mentioned reason to participate in class (q20) concerns the wish to know either new information or further understanding of a concept. Student A: “Ik ben oplettend, kritisch en ik probeer het te begrijpen.” [I am attentive, critical and I try to understand.] (q20). This student shows that motivation to participate is related to understanding. Another example, “ik doe mee als ik iets niet helemaal snap anders onnodig” (q20), represents the a need for a challenge (Ryan & Deci, 2017; Juul, 2013).

In the post-questionnaire, intrinsic motivation is mentioned much less compared to the pre-group. The theme to know is still the most frequently mentioned, especially in relation to being able to comprehend. “Ik snap meestal de uitleg” [I often understand the instruction.] (post CG, q22).

Regarding general participation to working well on assignments during class (q21) the subtheme ‘to know’ is not mentioned as frequently in both the pre CG and the post CG (q21). Most answers given seem to be divided and students tend to adopt a more neutral stance in their comments, “Omdat ik het niet erg vind om aan de opdrachten te werken.” [Because I do not mind working on the assignments.] (pre CG, q21). Experiences regarding the subthemes ‘to experience stimulation’ are hardly mentioned in the post-questionnaire, whereas reasons pertaining to the subtheme ‘towards accomplishment’ is mentioned most frequently.

*Subtheme 2: To experience stimulation*

The findings of the subtheme To experience stimulation in figure 16, show disagree decreasing by 12% and an increase of nearly 6% in both totally agree and totally disagree. Dividing the answers and because neutral maintains its position, the participants seem slightly more positive during the time of the post-questionnaire.

Reasons to participate are for only a handful to experience fun. They like the subject English and therefor they participate with English class. “Ik vind Engels een leuk vak” [I think English is a fun course] (pre-CG, q20). Students in the interviews mentioned doing different assignments as a motivating factor.

*Subtheme 3: Towards accomplishment*

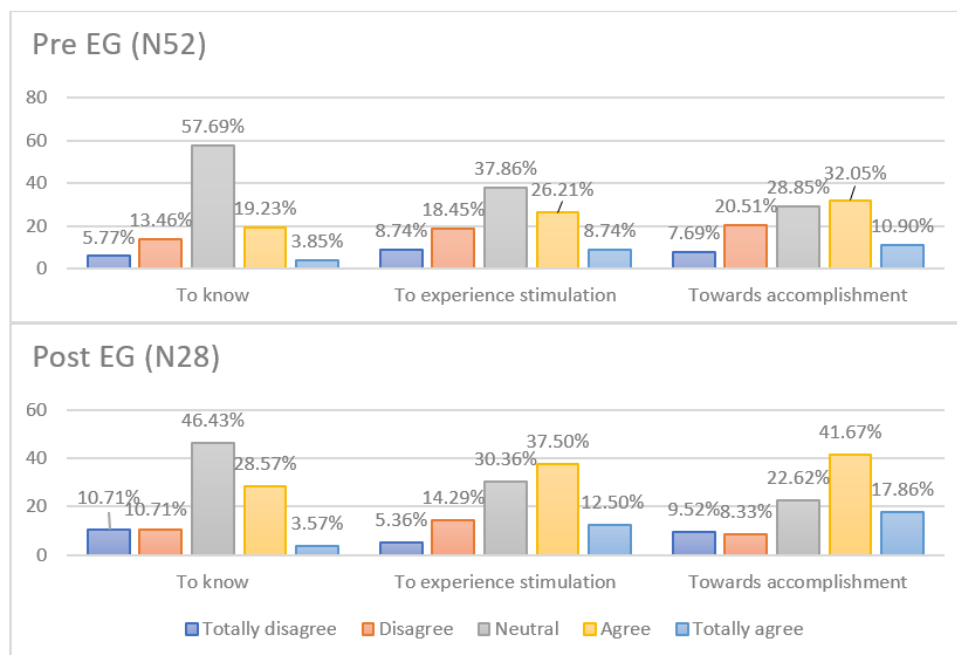
Even though the findings of the subtheme towards accomplishment in figure 16 show the value of disagree drop by 11%, the slight increase in agree does not combat the increase in neutral and totally disagree. Therefore these findings illustrate a somewhat negative development.

Reasons to be motivated to participate in class (q20) concerning this subtheme are hardly mentioned in the open questions. However, it is mentioned in relation to participation with assignments (q21). Participants spoke about personal improvement as motivator to participate in doing assignments. “Het is fijn als je opdrachten nakijkt en bijna alles goed hebt” [It is nice when you are checking the assignments and you have almost everything right.] (pre CG, q21). “ik heb altijd alles al af voor het eind van de les” [I always have everything already finished before the end of class.] (pre CG, q21). Especially the ‘al af’ [already finished] does indicate intrinsic motivation

towards accomplishment as it could indicate a certain competitiveness with themselves. The findings after the 10 week period in the post-questionnaire do not show an increase in this subtheme however, they do report similar comments as the first questionnaire. “Ik probeer altijd de opdrachten zo snel mogelijk af te hebben maar wel goed” [I try to finish the assignments as soon as possible, I do them well]. (post CG, q21).

#### Data Experiment Group

Figure 17 is the same as previously discussed figure 16. The difference is that the findings in figure 17 are from the EG.

**Figure 17***Experiment Group: Intrinsic Motivation**Subtheme 1: Intrinsic Motivation To Know*

The left side of figure 17 shows an increase in two areas. agree increases with 9.34% and totally disagree with 4.94%, and a notable decrease in neutral of 11.26%. To learn more about why the participants voted differently, the findings regarding the subtheme to know will be shared.

The participants frequently mention the ability to understand as the main reason to be motivated to participate. For instance, a student says "ik wil het beter begrijpen" [I want to understand it better.] (q20), as the main reason for participation. To learn new things, "(nieuwe) dingen leren." (pre EG, q20) also emerged as a frequent reason to be motivated.

In contrast to the findings in the pre-questionnaire, the participants in the post-questionnaire only mentioned encountering a topic they found difficult or when they did not understand something as motivation to participate. "ik doe mee als ik iets lastig vind" [I participate when I think something is difficult.] (q20), and, "ik steek vaak me hand op en vraag wanneer ik iets niet snap" [I often raise my hand and ask whenever I do not understand something.] (q20). So if a participant is already familiar with the topics discussed during English class, this could be a possible reason behind the drop

in neutral and the increase in agree and totally agree. Another aspect could be the coming test week and that students were feeling anxious to pass it and therefore had a higher desire to understand the topics discussed.

*Subtheme 2: To experience stimulation*

In the middle part of figure 17, an overall positive change is found between the results prior to the intervention and after. The negative values both decrease, neutral decreases and, both, agree and totally agree increase in value. While this positive change would indicate that something has happened, the participants do not mention this subtheme as a reason to be motivated to participate (q20) in class or to do assignments (q21).

*Subtheme 3: Towards accomplishment*

The findings on the right side of figure 17 show the most change in position between the pre- and post- results. The most significant change is seen in disagree which decreases by 12.18%. Together with the decrease in neutral and an increase in both agree and totally agree allow for a positive change. Even though totally disagree does increase as well, this is only by 1.83%. Regarding this positive change, participants prior to the intervention mention a wish to improve themselves as the main motivator to participate in class (q20). “ja, ik vind Engels lastig dus probeer er alles aan te doen om beter te worden” [Yes, I find English difficult so I try to do everything in my power to improve.] (pre EG, q20). While no specific reasons are given that comments like these can specifically be tied to intrinsic motivation, the notion of doing ‘everything’ to improve does allow for a more intrinsic interpretation rather than extrinsic. Especially since most students note ‘bad marks’ to be a motivator, which is extrinsic, and these participants did not. They stated a desire to improve because they find English a difficult subject.

Participants in the post group also do not fully specify the reasons why they wish to improve but the notion is the same. They wish to improve, “Ik weet wat mijn zwakkere punten zijn en let hier op door daar aantekeningen bij te maken en op te letten.” [I know my weak points and pay attention to these by taking notes and paying attention.] (post, q20), by paying attention to overcome their

weakpoints. Furthermore, the “I know my weak points” indicates that the participant is self-determined, as she/he is aware and consciously makes the choice to improve.

### Intrinsic motivation and Classcraft

Regarding intrinsic motivation, participants noted that *Classcraft* was more fun to work with compared to working from the book, “Het is veel leuker dan in een saai Engels boek en het sluit goed aan op deze generatie” [It is much more fun than a boring English book and it connects well with this generation.] (q28), and the adaptability/matching qualities with their interests. “Het was een unieke manier van stof herhalen ikzelf game heel graag en dit bied een manier om school en gamen te combineren” [It was a unique way to repeat the material, I really like gaming and this offers a way to combine school and gaming.] (q43).

However, for those who liked English as a subject, it did not do much, “ik vind engels een leuk vak ik hoef geen beloningen te krijgen om gemotiveerd te blijven.” [I like the subject English, I do not need to receive rewards to stay motivated.] (q35). This student is intrinsically motivated to participate with English and does not need rewards to be motivated.

Some students thought Classcraft was aesthetically pleasing, “Het werkt fijn en is best wel kijk” [It works nice and is quite look ..] (Q43), and liked the way it worked, “Je kan hierdoor op een wat speelse en zelfstandige manier dingen leren en oefenen” [This way you are able to learn and play in a playful, independent, manner.] (Q43). Feelings of intrinsic motivation were furthermore enhanced due to learning new things, “Creatief andere manier om de leerlingen dingen aan te leren.” [Creative, a different way to teach students something.] (Q43).

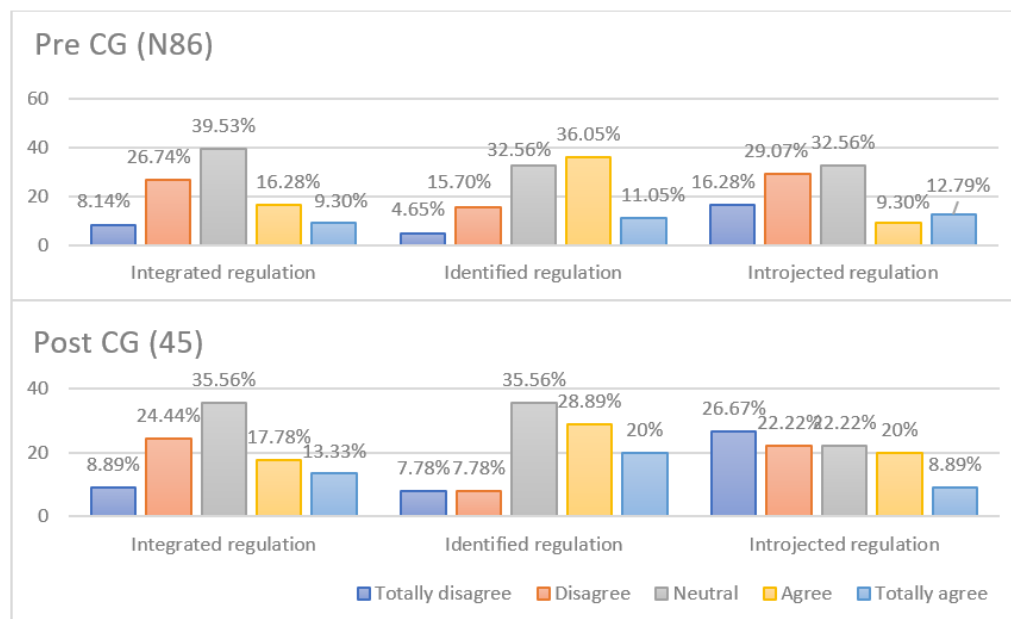
### Theme 2: Extrinsic Motivation

To present the findings of the theme extrinsic motivation, the theme has been divided into the four subthemes defined in SDT (Ryan & Deci, 2017). These subthemes are in SDT presented on a continuum, previously discussed in Chapter 1, and differ from autonomous motivation to controlled motivation. Autonomous motivation is according to the SDT closest to intrinsic motivation as it means that a person does something because they either identify with the activity, integrated regulation, or they participate in an activity because they wish to master a certain skill, identified

regulation. Controlled motivation is either introjected regulation, a person does something due to a sense of obligation or participates with an activity because of a personal goal, or external regulation. External regulation is a type of extrinsic motivation in which a person does something because of an external factor. This could be a teacher, a parent, other peers, etc.

#### Data Control Group

In figure 18 the results from subtheme ‘integrated regulation’, on the left side, show the opinions regarding closed question 11. “Ik wil aan mijzelf bewijzen dat ik een intelligent persoon ben.” [I want to prove to myself that I am an intelligent person.]. Then the results regarding the subtheme ‘Identified regulation’ are presented and show the combined answers to closed question 4: “Ik wil aan mijzelf bewijzen dat ik Engels kan.” [I want to prove to myself that I am able to use English.] and closed question 13. “Ik wil aan mijzelf laten zien dat ik kan slagen in Engels.” [I want to prove to myself that I can pass English.]. The third column shows the results from subtheme ‘Introjected regulation’ regarding closed question 8. “Ik voel me beter dan anderen wanneer ik goede resultaten behaal.” [I feel better than others when I receive great results.]. The final subtheme, external regulation, shall be discussed without combined quantitative data as there are too many factors that are concerned external. If all possible external factors were taken in to account it would push the scope of this research beyond its limits. Therefore the qualitative data from the participants is leading regarding emerging themes and patterns. It will be supported by quantitative data regarding teacher influence, as teachers play an important role in student motivation (Bernaus & Gardner, 2008). The bar chart visualising teacher influence will be analysed separately in the external regulation subtheme.

**Figure: 18***Control Group: Extrinsic Motivation**Subtheme 1: integrated regulation*

The percentages in figure 18 do not show a significant change. There is a slight increase in totally agree and a slight decrease in disagree. However, these fluctuations cannot be validated as the students in the questionnaires did not mention integrated regulation as a motivator to participate. Most students' experiences concerning identification with (English) intelligence or skill, are directed to amotivation, "Ik snap en weet alles al. Ik weet al hoe ik bijvoorbeeld alles in de verleden tijd moet zetten." [I understand and know everything already. I already know, for example, how to put everything in the past tense.] (post CG, q20). While intelligence is mentioned, the student is not motivated in relation to improving that intelligence. Since students like this mostly voted negatively, their experiences are predominantly pertained to amotivation.

*Subtheme 2: identified regulation*

Figure 18 shows an overall positive change in development between the results from the questionnaires. While a slight increase of 3.13% is seen in totally disagree, the decrease of 7.92% in disagree and especially the more significant increase of 8.95% in totally agree indicate a positive change.

In both questionnaires not much is said about being able to prove to themselves that being able to use English is personally important. Students report that passing this school year is the main reason to be motivated. This is in this case considered to be identified regulation as the students identify the ability of passing to themselves, “omdat ik meteen alle klassen over ben gegaan.” [Because I have immediately passed each school year] (post CG, q24)”, and, “ik weet dat ik over kan, en doe daar ook me best voor.” [I know I can pass, and I work for it.] (Pre CG, q24.). Furthermore, receiving a havo diploma is seen as personally important, “Ik ga dit jaar halen omdat ik m'n havo diploma wil zodat ik meer toekomst kansen heb.” [I am going to pass this year because I want a diploma so I have more possibilities in the future.] (pre CG, q24). Especially in relation to future perspectives.

Students also refer to past experiences on a different educational level as a drive to be motivated and to work hard. “Ik kom van mavo en zit hier dus niet omdat ik mijn tijd uit moet zitten op school. Ik zit hier voor een doel.” [I come from mavo and I am not here to waste my time. I am here with a purpose.] (q24, pre CG). The reference to ‘mavo’, but also mentioning ‘purpose’, indicates that this student works hard to be able to pass.

Having a goal related to future education is mentioned more often in the post-questionnaire, “Ik wil graag naar het hbo en daarvoor heb ik een havo diploma nodig. dus moet ik overgaan naar havo 5” [I want to go to HBO and for that I need a havo diploma. So I must pass to havo 5.] (post CG, q24), but also the need to be able to do it for yourself is stressed, “Kijk mij gaat het erom dat ik dat havo papiertje behaal, als de docent mij niet die kant op stuurt dan doe ik dat zelf wel.” [Look, I only care about receiving my havo diploma, if the teacher does not sent me in that direction, I will do it myself.] (pre CG, q20).

A less frequent pattern seemed to be related to study costs. Other students also mentioned the topic of money as a goal to go to HBO as quickly as possible, “Ik wil graag naar havo 5 en in 1x het examen halen zodat het eerste jaar van Hbo gratis is” [I want to go to havo 5 and pass the exams the first time so my first year at HBO is free.] (post CG, q24).

*Subtheme 3: introjected regulation*

The findings in figure 18 concerning the subtheme introjected regulation illustrate a divided change. Even though a sharp increase of 10.70% can be seen in agree, most students voted totally disagree, which changed by 10.39% in the post-questionnaire. With disagree and neutral plateauing at 22.22%, allows for a negative curve in the results. This change can be found in multiple parts of the English lesson. Regarding participation in class, participants frequently report that they are just listening “Ik luister gewoon” [I just listen.] (pre CG, q20), “Ik luister wel maar steek geen hand op.! [I do listen, but I do not raise my hand.] (pre CG, q20). This indicates a passive participation. Others mention the importance of not disturbing others, “Juah, het belangrijkste is dat je niemand stoort. De docent en medeleerlingen niet.” [Juah, the most important thing is not to disturb others. Not the teacher or the peers.] (pre CG, q20). Concerning participation with assignments, some pay attention because they do not wish to get bad marks “ik let op want anders haal ik slechte cijfers’ [I pay attention because I will receive bad results otherwise.] (pre CG Q21), or simply do the tasks because they are obligatory. “Ik doe wat ik moet doen.” [I do what I have to do.] (pre CG, q21). Concerning the post results, doing the assignments because they are obligatory is mentioned most frequently. The student saying, “Maak wat wordt opgegeven.” [Do what is assigned.] (post CG, q21), voted a 4, which correlates with agree. Therefore, even those who voted more positively had the same reason but probably struggled less with doing the assignments. The reason behind doing the assignments is the same but more frequently mentioned in the post results.

Another reason to participate and be motivated for English from the perspective of this subtheme is passing in fear of being demoted to a mbo. “ik ben al blijven zitten dus moet ik nu overgaan.” [I have already repeated, so I have to pass.] (pre CG, q24), “Anders moet ik naar mbo en dat wil ik niet.” [Otherwise I have to go to mbo and I do not want that.] (pre CG, q24) and, “Ik moet wel overgaan anders ga ik naar het mbo. Engels is een kernvak en er moet wel iets goeds staan.” [I have to pass otherwise I go to mbo. English is a core subject and the result must be good.] (pre CG, q24). In the post-questionnaire the fear of being demoted in the post-questionnaire was mentioned even more often. “Als ik nu nog een jaar blijf zitten moet ik naar mbo en dat wil ik niet” [If I have to redo this year, I have to go to mbo, and I do not want that.] (post CG, q24), “Ik wil over en heb echt

geen zin om dit jaar opnieuw te doen.” [I want to pass, I really do not want to redo this year] (post CG, q24) and, “Ik wil graag over naar havo 5 en daarvoor moet ik er nog wel even aan trekken. Zo niet dan kan het zomaar de verkeerde kant opgaan. Dit beïnvloed me motivatie.” [I want to pass to havo 5 and for that I need to work. If not, it could go the wrong direction.] (post CG, q24). Especially “de verkeerde kant op” highlights this fear of demotion as mbo is seen as going in the wrong direction.

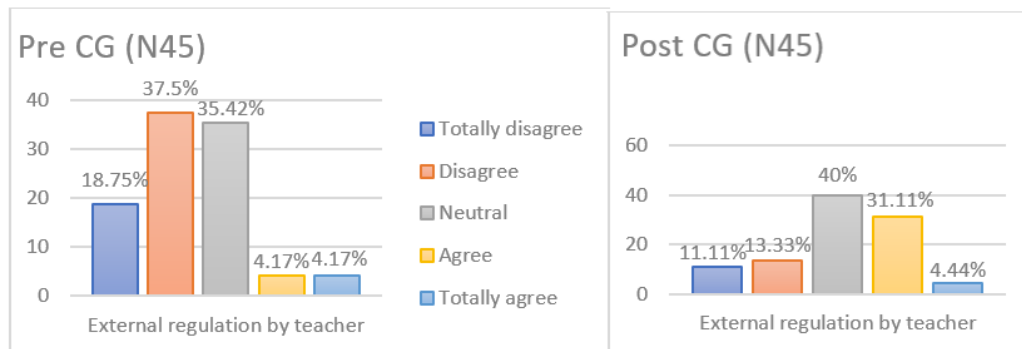
*Subtheme 4: external regulation*

This subtheme is mentioned the most often in relation to participation in class and during assignments. The main reasons vary between participating because the teacher said so, “Als er iets aan me gevraagd word doe ik mee, anders niet.” [If something is asked of me, I participate, otherwise I do not.] (pre CG, q20), or the prospect of receiving insufficient marks if the student does not participate. “ik let op want anders haal ik slechte cijfers.” [I pay attention otherwise I receive insufficient marks.] (pre CG, q20). This did not change over the period of 10 weeks as participants note motivation based on marks, “Omdat ik een onvoldoende sta moet ik wel” [Because I have insufficient marks, I have to.] (post CG, q20). Note, this student gave a score of 5 on the Likert scale. Quite a lot of students pay attention to improve their marks, whether they are insufficient or function as a safeguard, “Dan begin je het jaar meteen goed als je de SE goed maakt.” [Then you immediately start the year well, if you pass the school exam (SE) with a good result.], (post CG, q24).

Another reason to be motivated is the teacher. The factor of the teacher seems to increase in significance regarding motivating the students of the CG. Figure 19 displays the results of closed question 22, “Hoe dat de docent mij lesgeeft motiveert mij voor de Engelse les.” [How the teacher teaches motivates me for English class].

**Figure 19**

*Control Group: External Regulation by teacher*



This graph illustrates a significant positive development indicating that the participants of the post-questionnaire group were more motivated by their teacher compared to the participants of the pre-questionnaire group. Especially the increase of 26.94% in agree is the most notable. Participants note the teachers' happiness, positiveness, ability to make jokes, and the ability to deliver good instruction to be the main reasons.

However, it is interesting to note, whereas the findings in other graphs mentioned a decrease in the amount of participants in the post group, the amount of participants regarding this data is the same. The difference is an under representation of students who are going to mbo. In the pre group seven participants are going to mbo and in the post group only one. Another difference is the amount of comments, in the post group the teacher who had a fixed structure in their lesson plan, a main focus on good instruction and after that time to work on assignments, only received one comment. Whereas the other teacher who switched materials, who made jokes and also gave good instruction, was received more positively and had more comments.

### Interviews

The participants in the CG noted feeling a difference in motivation due to a switch in English teachers. They experienced it as a demotivating and a motivating factor. The students found the previous teacher, during the time of the pre-questionnaire, to be unjust and inconsistent. Their experience concerning the teacher that took over was perceived better. They note the structure of the lessons and the quality of instruction as motivating factors to participate.

No specific mention regarding the subtheme integrated regulation was touched upon during the interviews. Students noted to need English to pass to have 5, but not the necessity for them to study English as a means to achieve be feel more intelligent.

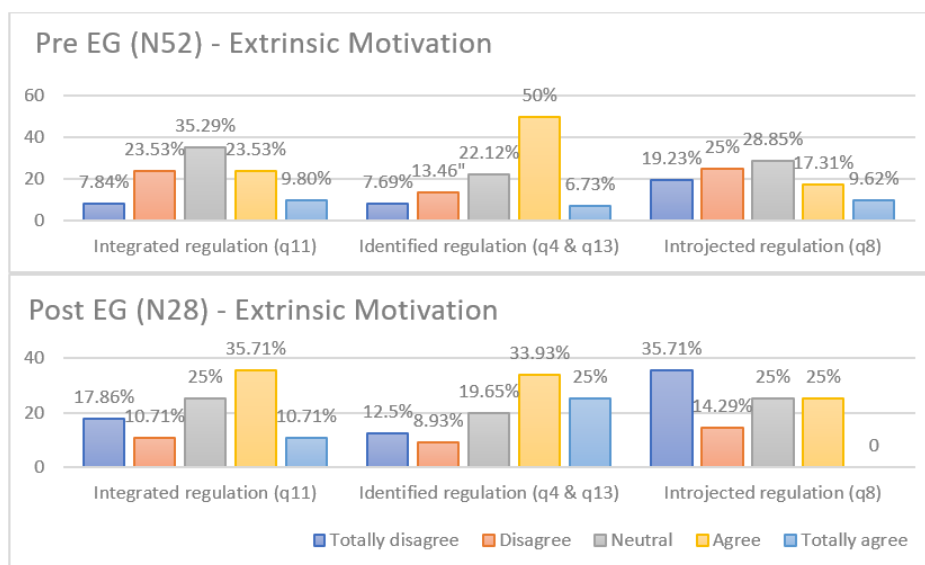
Regarding games in class, the CG students noted rewards as the most frequent extrinsic motivator and competitiveness after that.

Data Experiment Group

The findings from the questionnaires regarding the subthemes of extrinsic motivation are presented in figure 19. These findings will be discussed and used as support to in their respective subtheme.

**Figure 20**

*Experiment Group: Extrinsic Motivation*



*Subtheme 1: integrated regulation*

This subtheme is about a participant doing something because they relate the action or skill to being a certain person they want to be (q11). The percentages in figure 20 show a positive change despite the 10% increase in totally disagree. Since disagree and neutral both decrease with +10% and a significant increase of 12.18% can be seen in agree, can the overall development seen as positive. The reason behind this change in perspective can hardly be found in the comments of the questionnaires as the participants are not very concise in their reasoning. However, some students do

feel motivated from a competitive point of view, “Ik ben altijd al klaar terwijl de rest net begint.” [I am always already done while the others are just getting started] (pre EG, q21). It seems that this student values being quicker than others.

*Subtheme 2: identified regulation*

This subtheme is related to a participant’s reason to gain a skill or a participant’s goal. The participant wishes to prove that they are able to do something out of extrinsic reasons. Motivation occurs if the task is seen as personally important.

Figure 20 shows a significant positive change. Despite a slight increase of 4.81% in totally disagree, the increase of 18.27% in totally agree validates this positive switch. The difference between the attitudes of the participants between the questionnaires is their goal. The comments shared prior to the intervention mention being prepared for next year as a motivator, “ik wil een goede basis hebben voor als het volgend jaar lastig word” [I want a proper foundation just in case it gets difficult next year.] (pre EG, q24), or to have sufficient marks, “ik wil overgaan met goede cijfers” [I want to pass with sufficient marks.] (pre EG, q24). While others mention passing to have 5 in order to follow their dreams, “ben al blijven zitten dus ik zal wel moeten om mijn dromen te halen” [I have already redone a year so I have to if I want to follow my dreams.] (pre EG, q24), but also the necessity of this goal, passing to have 5, is stressed.

In the post-questionnaires participants do not mention passing with sufficient marks as the main motivator, “Ik denk dat ik niet perse gemotiveerd word om over te gaan maar wel om goede cijfers te halen en dan later te kunnen doen wat ik graag wil doen. Kwa werk.” [I think that I am not particularly motivated to pass but I am about receiving sufficient marks, so I can do what I really want to do later on -in life-.] (post EG, q24), but being able to have freedom of choice later in life. The most frequently mentioned goal has shifted from passing with sufficient marks to passing to have 5. “Ik wil ontzettend graag over naar have 5 en zo snel mogelijk klaar zijn met middelbare school. Alleen nu aan het eind van het jaar wordt de motivatie toch minder.” [I want to pass to have 5 so badly and be done with secondary school. However, now at the end of the year, motivation dwindles.] (post EG, q24).

*Subtheme 3: introjected regulation*

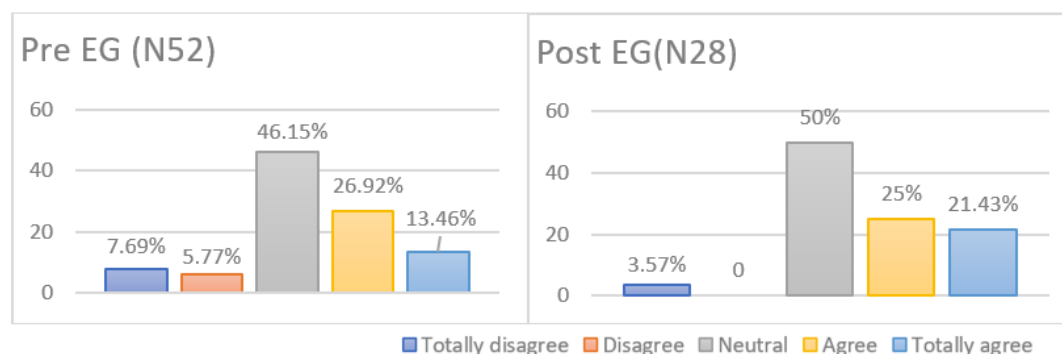
Motivation regarding this subtheme stems from doing something out of obligation or due to ego involvement. The numbers in figure 20 illustrate a negative development. The most noticeable differences are the 16.48% increase in totally disagree to 35.71%, and the decrease in totally agree to 0%. Even though disagree decreases too, by 10.71%, it does not outweigh the overall negative difference.

The findings from figure 20 support the reasoning of the participants. Prior to the intervention students mention mark improvement, “ik moet een hoger cijfer halen voor Engels dan dat ik heb gedaan.” [I need to get a higher mark for English, than I previously did] (pre EG, q20), “ik probeer goed op te letten om mijn cijfers te verbeteren.” [I try to pay attention to improve my marks.] (pre EG, q20) and the obligatory factor of the assignments, “Ik doe wat ik moet doen.” [I do what I have to do.] (pre EG, q21), as the main motivators.

In the post-questionnaire group, the factor of improving marks was also frequently mentioned; “ik werk (bijna) altijd gewoon aan de opdracht waar je aan moet werken” [I work (almost) always on the assignment I need to work on.] (post EG, q21) and “ik heb af wat af moet zijn.” [I have finished, what needs to be finished.] (post EG, q21). However, most do have a negative twist, “ik moet wel over dit jaar dus wil wel goede cijfers” [I must pass this year, so I need sufficient marks.] (post EG, q24), the ‘must’ indicates the necessity for getting sufficient marks. Another, less frequently mentioned, factor is fear of demotion, “Ik wil niet opeens alles verpesten.” [I do not want to suddenly ruin everything.] (post EG, q24). For others the goal has simply become to pass so they do not have to redo the year. “Ik wil gewoon over gaan en niet een jaar opnieuw moeten doen” [I just want to pass and not have to redo a year.] (q24, post EG).

*Subtheme 4: external regulation*

This subtheme is mentioned the most as it concerns itself with external factors, like parents or teachers, or possible rewards as a reason to be motivated to do something. A relatively big part of this subtheme is the teacher as a motivating factor (Bernaus & Gardner, 2008). Figure 21 illustrates the overall thoughts in regards to the teacher as a motivating factor in the EG.

**Figure 21***Experiment Group: External Regulation by teacher*

In figure 21, the EG participants show a significant positive change in relation to being motivated by the teacher. However, the comments in both questionnaires are approximately the same. Those who feel motivated by the teacher mention fun, the quality of instruction, “Door goede uitleg.” [Due to good instruction.] (pre EG, q22), “de uitleg is best prettig om naar te luisteren” [The instruction is quite nice to listen to.] (pre EG, q22), “ik let altijd op omdat je goed uitlegt.” [I always pay attention because you explain well.] (pre EG, q20), the attitude of the teacher, “ze is blij + positief” [She is happy + positive.] (pre EG, q22), “ze is gewoon vrolijk is leuk les van te krijgen” [She is just happy, -it- is fun to receive lessons from -her-.] (pre EG, q22), “Staat heel vrolijk voor de klas”, [-is- very happy in front of the class.] (pre EG, q22), “ik vind dat de lessen met veel enthousiasme worden gegeven” [I think that the lessons are taught with much enthusiasm.] (pre EG, q22), and some mentioned the implementation of games that improve English proficiency, “Mevr. Gielen geeft ons leuke oefeningen om onze Engels te verbeteren. Bv het teken spel waar de een moet beschrijven in het Engels en de ander moet tekenen.” [Mrs Gielen assigns us fun assignments to improve our English. E.g. the drawing game in which one person needs to describe in English and the other has to draw.] (pre EG, q22).

The students in the post-questionnaire mentioned the same reasons, “De energie en duidelijke passie zorgt voor een leuke/motiverende sfeer”. [The energy and clear passion allows for a fun and motivating atmosphere.] (post EG, q22), “Is een interessante les altijd. Ook de manier waarop ze alles uitlegt.” [Always interesting lessons. Also the way in which she explains everything.] (post EG, q22),

and, “Gielen brengt goede energie” [Gielen brings good energy.] (post EG, q22), illustrate these factors.

The students who voted neutral either mentioned English as not being fun, “Engels is sowieso niet heel leuk dus de docent kan daar niet veel aan doen” (pre EG, q22), or were just not motivated by the teacher, “De docent zorgt er niet perse voor dat ik meer gemotiveerd wordt” [The teacher does not necessarily motivates me more.] (pre EG, q22).

In the post-questionnaire, aside from the teacher as a motivator, participants note the possibility to pass to *havo 5* as a motivator, “Er is een grote kans dat ik over ga daarom heb ik veel motivatie om het nog te proberen” [There is not a big change that I pass so that motivates me to try. ] (post EG, q24), in this case passing to *havo 5* is considered the reward. Furthermore parental involvement in relation to the possibility to pass was also mentioned a couple of times, “Toen ik dacht dat ik niet overging deed ik niks en nu ik er weer voor ga omdat we denken dat t kan doe ik weer genoeg aan school.” [When I thought I would not pass I, I did not do a thing and now I am going of it again because we think that I can do it, I am doing enough for school again.] (post EG, q24).

#### Extrinsic motivation and Classcraft

The participants noted several factors as extrinsic motivators. The boss battle was seen as a fun way to compete with each other, “De bossbattle vond ik wel leuk omdat iedereen ook goed mee leek te doen.” [I kind of liked the boss battle because everyone seemed to participate well.] (post EG, q31), and, “Het haald op deze manier de competitieve leerlingen eruit en zorgt ervoor dat je er wat van opsteekt” [It distinguishes the competitive students and allows you to learn something from it.] (post EG, q31). The rewards that they could earn, “soms het motiveert me wel omdat ik punten kan krijgen” [Sometimes, it motivates me because I can get points.] (post EG, q31), and, “Als je de bossbatle gewonnen had kreeg je meer punten in classcraft” [If you had won the bossbattle, you would get more points in Classcraft.] (post EG, q35), was seen by some as a motivating factor. The ability to gain points and other rewards worked for the majority as a motivating factor, “ja ik wil het dan juist goed maken” [yes, it makes me want to do it well] (post EG, q35), “Het is leuk als je het krijgt” [It is fun if you get it.] (post EG, q35), while for others it did not work as well, “Beloningen

werken normaal wel goed maar in deze app boeit het me niet heel veel” [Rewards normally work well but in this app it does not really matter to me.] (post EG, q35).

Some students particularly liked the pets, “Meer pets hebben is altijd leuk” [Having more pets is always fun.] (q40), “jaaaaaaa!!” [yeeees!!] (q40), and “Pets zijn cute” [Pets are cute.] (q40). The ability to create an avatar was for some fun, “ik vond het leuk om je eigen karakter te maken.” [I liked creating your own avatar.] (q36), however, it did not always motivate, “Het werk niet per se motiverend maar is wel kijk” [It did not particularly enhance motivation but -it- is nice -to- look -at-] (q36).

A few students mentioned to like the looks of Classcraft regarding the digital environment, “Het ziet er wel grappig uit” [It looks kind of funny.] (q29), and even mentioned feeling less pressure compared to the real world, “Omdat je in een online wereld zit voel je de druk compleet niet” [Because you are in an online world you do not feel any pressure at all.] (q30).

Furthermore, most students were not motivated by the stories of the quests as they were vague and anticlimactic due to assignment interruptions, “het verhaal van classcraft vind ik er vaag omdat er steeds een spannend moment komt maar dan zit er weer een opdracht tussen waarna de spanning helemaal weg is. als dit beter gedaan zou zijn zou ik dit wel leuk vinden.” [I think the story of Classcraft is vague because when an exciting moment comes, an assignment appears in between which completely decimates the excitement.] (q27), or just not interesting enough, “Het verhaal intereseert mij niet” [The story is not interesting to me.] (q27). Personal powers were also not seen as motivating factors as no students commented on this factor.

## Theme 3: Amotivation

## Data Control Group

The findings from the questionnaires regarding the themes amotivation are presented in figure 22. These findings illustrate the opinions of the participants of the CG concerning the following questions; closed question 6, “Ik had ooit goede redenen om Engels te volgen, maar nu vraag ik mij af of ik dat nog wel moet doen.” [I had good reasons to participate with English once, but now I wonder if I should continue.], closed question 9, “Ik zie het nut er niet van in en, eerlijk gezegd, kan het me niks schelen.” [I do not see its usefulness, and frankly, I do not care.], and closed question 12, “Ik snap niet wat ik tijdens de les doe.” [I do not understand what I am doing during class.].

**Figure 22**

*Control Group: Amotivation*

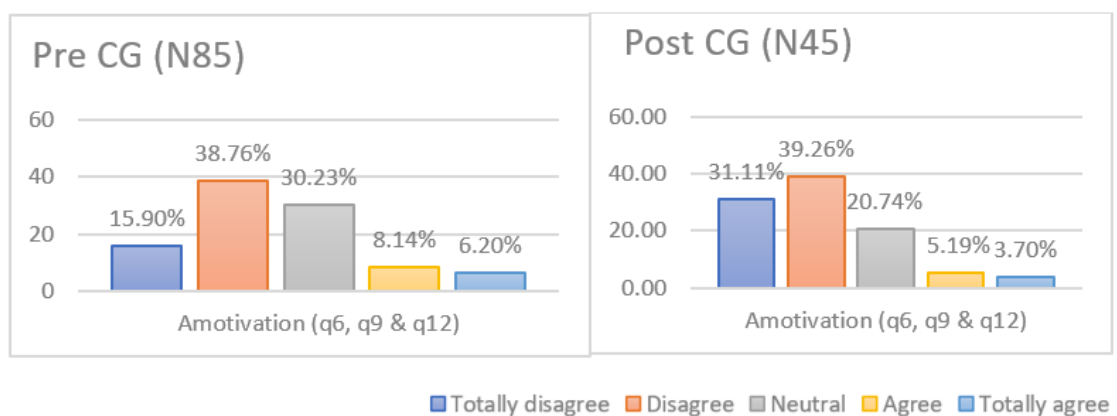


Figure 22 shows that the participants are in general not feeling amotivated. Only a handful of students from the pre questionnaire note feeling amotivation and in the post-questionnaire this number dwindled even further. However, it must be said that in the post-questionnaire only one student participated who is going to mbo, three students that will be redoing havo 4 and three that do not yet know what they will be doing next year.

Amotivation appears to be mentioned more often in relation to the different parts of a lesson. For some instruction is demotivating, “vaak gaat mijn concentratie weg omdat het hetzelfde blijft aan een stuk door.” [My focus often goes away because the instruction stays the same for a

long time.] (Pre CG, q20)", and "soms wel, soms niet als de uitleg te lang duurt heb ik vaak geen zin meer" [sometimes, if the instruction is too long, I lose the will to participate.] (pre CG, q20), while for others it is the amount of assignments "veel opdrachten in de les .." [Many assignments during class ..] (pre CG, q21) or that the English lessons are too challenging, "omdat het niet lukt" [Because I cannot succeed.] (pre CG, q21). For some it is the teacher that does not motivate "ik wordt onzeker tijdens de uitleg" [I am getting insecure during instruction] (pre CG, q22). The most frequently mentioned reason concerning amotivation is related to class expectancy for the next school year. Those who are certain about passing to have 5, and who explain to be quite proficient in English, mention the factor of a lack of challenge as the main reason to feel amotivation. "ik snap het al" [I already understand.] (pre CG, q20)", and, "ik vindt het dan saai omdat ik het al allemaal ken" [I think it is boring because I already know it.] (post CG, q20), which result for some in boredom and further amotivation questioning the necessity of it all, "ik vindt het te saai en zie het nut er niet van in om mee te doen" [I think it is too boring and I do not see the necessity to participate.] (post CG, q20).

Furthermore, class expectancy in relation to mbo also severely impacts a participants motivation noting the uselessness of secondary school, "Doe niks meer voor school maakt toch niet meer uit" [I am not doing anything for school anymore, it does not matter anymore.] (pre CG, q24), and, "cijfers maken niks meer uit, dit demotiveerd" [marks do not matter anymore, this demotivates.] (Q24), as a reason behind their amotivation. Consequently, also the participants who already know they have to redo the have 4 school year seem to be amotivated due to the same reason, "In mijn ogen is het nu onnodig om nog mijn best te doen" [In my eyes, it is unnecessary to continue to do my best.] (pre CG, q24).

Participants who are unsure about their continuation after have 4 note duration of the class "zo snel mogelijk de les klaar." [finish as soon as possible with class.] (pre CG, q17), and the lack of choice regarding assignments, "geen keus" [no choice] (pre CG, q18), as reasons not to participate. To some participants it lead to a sense of uselessness, "misschien niet over gaan dus het gevoel dat

het geen zin heeft” [Maybe I won’t pass, so -I have- the feeling that it doesn’t matter.] (post CG, q24) and feelings of boredom, “saai ik wil naar huis” [boring, I want to go home.] (pre CG, q24).

As mentioned in the subtheme external regulation, the participants of two groups of the CG noted feeling a difference in motivation due to a switch in English teachers. A difference noted in the interviews, compared to the questionnaires, was the frustration these students felt, and expressed, in regards to the previous teacher. While not all CG students felt disadvantaged, some students indicated that the teacher tried to perform well but that the students did not allow teaching to take place, the majority did.

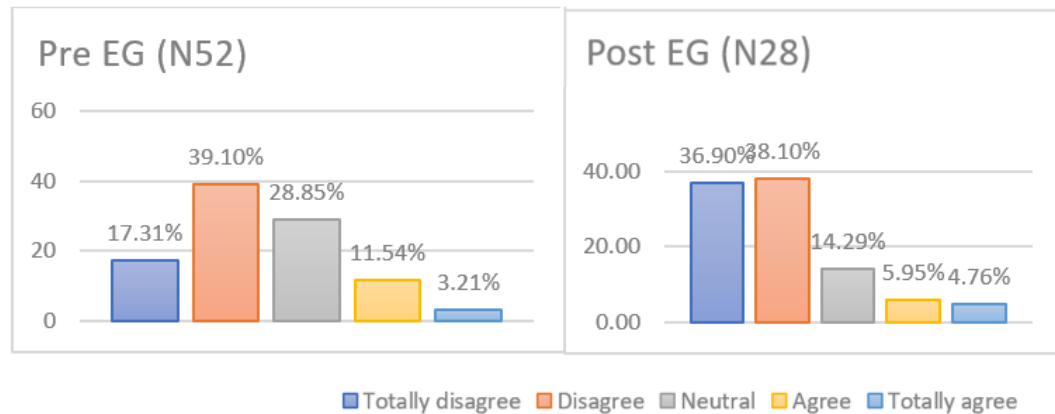
The previous teacher to two of the CG classes tried to incorporate games to encourage students to participate and feel motivated, however, since the class did not like the games, they did not feel motivated to participate.

The most frequently mentioned factor pertaining to amotivation seemed to be related to parts of the lesson. In that regard to the interviews match the comments from the questionnaires as the demotivating factor pertained to the length of instruction which made it boring and difficult to keep participating. Another reoccurring factor were the assignments, which were either boring and not challenging, or too challenging.

Regarding games during class, the two classes who experienced a teacher switch did not like the games as there were no rewards, only punishment, which, according to some, sometimes led to a tense class environment.

#### Data Experiment Group:

Figure 23 illustrate the development of amotivation in the EG.

**Figure 23***Experiment Group: Amotivation*

The results from figure 23 show a positive change, indicating participants feeling less amotivation after the intervention. Do note, the three students going to mbo in the pre-test questionnaire, the one student going to repeat havo 4 and the three students who did not yet know what they were going to do changed to one student going to mbo in the post-test questionnaire, two students going to repeat havo 4 and to one student who did not yet know. This indicates that even without their possible negative motivation scores, amotivation increased.

Those going to mbo did note uselessness as the main reason to be amotivated, “Ik weet toch al wat ik ga doen dus dan heeft het niet zo heel veel nut om nog echt goed mijn best te doen.” [I already know what I am going to do so it is not very useful to do my best.] (post EG, q24) and the fact that their marks did not matter anymore, “cijfers boeien niet voor mbo dus ga er geen moeite meer voor doen” [Results do not matter for mbo so I am not going to put in anymore effort.] (pre EG, q24). Those repeating havo 4 shared the same mentality, “Het is nu onnodig om mijn best te doen.” [It is unnecessary to put in effort.] (pre EG, q24), but added the factor of not stressing or hastiness as a reason in the post-questionnaire, “K heb geen stress om havo te halen ik moet toch me hele leven werken waarschijnlijk.” [I do not stress about passing havo, I still have to work all my life.] (post EG, q24).

Some participants do feel amotivated in general because they find English too difficult, “Omdat Engels mijn slechtste vak is en ik het gewoon niet kan.” [Because English is my worst subject and I am just not able to do it.] (post EG, q24). However, while most participants do not feel amotivated in general, they do feel amotivated during certain parts of the lessons. Especially in regards to instruction or assignments. Especially when it is too easy, “ik vind school niet heel moeilijk, ik doe namelijk bijna niks.” [I do not think school is that hard, because I hardly do a thing.] (pre EG, q24), “nee want het is gewoon invullen en niet denken” [No because it is just filling in and you do not need to think.] (pre EG, q21), and, “ik vind dat ik niet zo vaak goed oplet omdat ik de meeste dingen al ken zoals grammatica”. [I do not think that I pay sufficient attention because I already know most things, like grammar.] (post EG, q20), or when it is not fun, “Sommige opdrachten vind ik niet zo leuk of er zijn veel opdrachten van dezelfde soort. Hierdoor raffel ik dit soms af.” [Some assignments are not so much fun or there are too many assignments of the same kind. Because of this, I sometimes cut corners] (post EG, q20).

Furthermore, when assignments are perceived as too difficult students also feel amotivated. “De opdrachten die we soms krijgen vind ik soms heel lastig dus raak ik ongemotiveerd.” [I think that the assignments we sometimes get are very difficult so I get demotivated.] (pre EG, q21).

#### *Amotivation and Classcraft*

A recurring reason to not feel motivated during *Classcraft* is that it was either unclear or disorganized, “Classcraft was erg vaag” [Classcraft was very vague.] (q37), “ik had zelf wat moeite om het programma te snappen hierdoor heb ik vaker hulp moeten vragen” [I had difficulty with understanding the programme which made me ask for help more frequently.] (q37), “Ik vond het niet echt leuk omdat ik het onoverzichtelijk vond [I did not really like it because it was disorganized.] (q44)”, “Soms wel moeilijk om de juiste opdracht te vinden” (q44), or they found it too complicated, “Het was ingewikkeld.” [It was too complicated.] (q44).

Trouble getting started also emerged as a recurring factor that influenced student motivation. It took a while to log in on the *Classcraft* app, “het inloggen dat t lang duurt.” [logging in,

that it takes a while.] (q44), and, “duurt erg lang en heb al geen zin om het op te starten” [takes a very long while and do not feeling like starting it up.] (q44), which demotivated students to try at all, resulting in amotivation. Sometimes students could not access the website at all. “Meestal werkt classcraft niet” [Most of the times *Classcraft* did not work.] (q29).

Furthermore, the division in motivation to participate with *Classcraft* also affected the motivation of students who liked working together. “Ik heb het gevoel dat mijn team classcraft allemaal niet heel fijn vond dus in dat opzichte niet.” [I have the feeling that my team did not particularly like *Classcraft*, so in that regard, not really.](q38) and, “samenwerken altijd leuk maar via zo’n spelletje vind ik dat lastiger” [Working together is always fun but via a game like that, I think it is harder.] (q38).

Participants also acknowledged that the timing of the *Classcraft* intervention could have been better. Noting level progression, “Ik vind dat je beter in het begin van het jaar kan beginnen omdat je dan ook echt kan gaan levelen want nu is niemand nog level 2 xD. [I think it would have been better to start at the beginning of the year, so you can truly start levelling up because now no one is level 2.] (q41)”, the upcoming testweek, “denk dat de tweede periode beter zou zijn geweest omdat meeste leerlingen meer gemotiveerd zijn in het midden van het jaar en nu komt de proefwerkweek eraan wat erg belangrijk is” [-I- think that the second periode would have been better because most students are more motivated in the middle of the school year and now with the arrival of the testweek, which is very important.] (q41)”, and the recurring chaos at the end of the year, “aan het einde van het jaar is het op school altijd chaos als je hier aan het begin van het jaar mee was begonnen waren we er aan gewend geweest; ik had al motivatie voor engels.” [At the end of the year it is always chaos at school, if you would have started at the start we would have been used to it; I was already motivated for English.] (q41), which makes introducing something new useless, “Als je laatste periode iets nieuws introduceerd is dat vrij nutteloos.” [If you introduce something new in the final period, it is pretty useless.] (q41).

Another recommendation made by students pertained to Classroom management of the students who refuse to participate, “Strenger handhaven naar mensen die het niet doen” (q45), by punishing them and taking away their rewards, “Ik vond dat het zo wel een prima effect had maar ik had wel het idee dat niet iedereen de opdrachten in classcraft misschien kunt u als iemand het niet heeft gedaan goud stelen van hun? (Geen idee of dit kan)” [I thought it worked out fine but I had the feeling that not everyone -did- the assignments in Classcraft, maybe, if someone did not do them you could steal gold from them? (No idea if this is possible)] (q45), and using Classcraft more often, “Probeer het echt veel meer te gebruiken” [Try to use it way more] (q45) and “Het kan wel wat uitgebreider worden gebruikt in de les” [It could be used more extensively during class.] (q45).

## Discussion

### Recap

In the Netherlands, students across all educational levels seem to have issues with their motivation (Bernasco, 2009; Cox & Van der Vegt, 2018; Gijssen et al, 2013; Inspectie van het Onderwijs, 2019). However, compared to the other groups, the *havo 4* students appear to face even more difficulties regarding their motivation (Centraal Bureau voor de Statistiek, 2021). Which is why this study focused on the students of *havo 4*. The Almende College Isala is a school that can be identified as a traditional school and therefore represents the majority of school systems in the Netherlands (Ministerie van Onderwijs, Cultuur en Wetenschap, n.d.) and is therefore chosen to perform this experiment at. Indicating that this research could offer some insight in the possibilities of gamifying the EFL curriculum, specifically toward boosting motivation.

The purpose of this study was to find a possible way to combat the current motivational issues among Dutch *havo 4* students. This was done via a 10 week long intervention in which the EFL curriculum was gamified using *Classcraft*. The foundation of *Classcraft* is based on the SDT which means that students should feel encouraged to be more autonomous and to take ownership of their learning process. The goal of this study was to find the answer to how a gamified EFL curriculum affects Dutch *havo 4* students' motivation.

### Findings

Findings show that the level of self-determination from the students of the EG determination rose more compared to the CG. The EG also showed a higher increase in scores regarding feeling more at ease to ask the teacher for help, this might indicate that *Classcraft* could have had an positive effect in this.

Both CG and EG showed increased scores regarding perceived autonomy but the EG showed a substantial increase. The EG also showed increase in need whereas the CG showed roughly the same need before and after the ten weeks. That the need for autonomy increased, might pertain to getting accustomed to receiving more autonomy and valuing it. Overall, the increase in scores

regarding autonomy indicate that *Classcraft* has had a positive effect on their feelings of autonomy, since their growth greatly differed from the CG.

Additionally, it was found that participation in general diminished slightly in the CG group over the 10 week period. Whereas the EG, if compared to the CG, shows a minor decrease in participation during class but an increase in participation when it came to doing assignments. This could be ascribed to either their increase in feeling more autonomy, offered via *Classcraft*, or via the different modes of motivation that are addressed via SDT also through *Classcraft*.

Furthermore, while it was expected that one class in the EG would report negatively on the state of their class environment, the students of the EG indicated to feel safe and to get along well with one another. The students of the CG however showed a negative development. This indicates that *Classcraft*, could influence class environment positively. This is in line with Rivera-Trigueros and Sánchez-Pérez's (2020) research. Overall, the students of the EG perceived an increase in their environment, feeling safer and being able to get along with each other better.

*Classcraft* offers its participants mainly extrinsic stimuli via rewards and competitive elements. However, while it was expected that the students would respond well to the extrinsic rewards and factors due to previous research related to gamification and its influence on motivation (Tang, 2008; Vansteenkiste, Lens & Deci, 2006), it seemed that the *Classcraft* intervention showed promise related to intrinsic motivation as well.

### Intrinsic motivation

First of all it seemed that all subthemes of intrinsic motivation increased. Subtheme to know increased slightly, to experience stimulation increased greatly in both positive values and intrinsic motivation towards accomplishment increased the most. In comparison to the data from the CG, the subtheme to know seems to have developed in the same way as the EG. Overall the EG showed a higher increase in intrinsic motivation.

EG students did note that one of the reasons why they prefer games in class was because they found it fun and it let them learn new things in different ways. Therefore the subtheme intrinsic

motivation to know was touched upon lightly since some students mentioned the boss battle as a fun way to learn new information or to be able to better comprehend previously discussed material. Furthermore, most students liked the aesthetics of Classcraft and some students liked working in Classcraft as they could see themselves improve via their Avatars.

Furthermore, participants with a relatively high level of proficiency, or those who believed themselves to be proficient, showed a high demand for being challenged. Their wish to learn new things, however, was not always met, in the CG and in the EG. This led to feeling amotivation in regards to particular parts of the lessons like during instruction. These students participated only if they felt intellectually challenged. Classcraft seems to be the reason why they felt more motivated at the end of the intervention to work on the assignments. Students reported the ability to work for themselves and to decide what they wanted to work on as a positive feature. From their experiences the challenges provided by *Classcraft* as well as the autonomy allowing them to work for themselves without needing to wait on others or the instruction, seemed to be part of the reason behind this slight positive change.

While both groups noted having fun to be the most important reason to participate in gamified work forms in general, they also indicated that it was important that gamified work forms would offer them a new or a different experience compared to the normal lessons. However, while the EG reported to like the boss battle and the aesthetics of Classcraft, no further reasons were given regarding intrinsic motivation.

### Extrinsic motivation

Concerning extrinsic motivation, the CG portrays comparable results to the EG concerning the subtheme integrated regulation, which is a minor positive change. The students of the EG seem to be more divided, especially as both the positive value and the most negative value increase significantly. It seems that class expectancy influenced their motivation the most as it showed that some students found that they were able to still continue to have 5.

The EG and the CG both showed a great positive change in external regulation when it concerned the teacher. The impact of the teacher on student motivation seemed to increase in quantitative data, however, while reviewing the data from the questionnaires and the interviews, the qualitative data did not necessarily illustrate different opinions between the pre- and the post-test. There could be several possible explanations. Either the teacher change in the two classes from the EG made a positive impact on external motivation, or, the students asked for more support from their teachers as the final test-week came closer. This is especially important related to the motivational influence the factor class expectancy showed to have on their overall motivation. These could be the reasons why the data from the students in the CG showed a positive result. In comparison, the experiences shared by the EG do not indicate that their perception of the teacher changed; the only thing that changed there was that the lessons were offered via *Classcraft*. This allows me to think that by accommodating student autonomy, more time was being spent supporting students who asked for help.

Overall it was expected that the *Classcraft* intervention would have made the biggest difference in student motivation concerning the theme of extrinsic motivation due to previous research regarding effectiveness of gamification (Dichey & Dicheva, 2017; Groening & Binnewies, 2019; Kyewski & Krämer, 2018). This was not the case, as results show that the factor of class expectation and the importance of receiving sufficient results outweigh the factors of extrinsic motivation. The tendency of students to mainly focus on passing refers back to Martens (2015), who indicated that in the Netherlands a culture of mediocrity is supported. This study could therefore function as an example, as the students were focused more on passing than learning.

Furthermore, the most significant change in qualitative data was found regarding external regulation and gamification. While both groups mentioned rewards and competitiveness as the main extrinsic motivators to play games in class, the students from the EG were divided about feeling motivated because of the rewards received in *Classcraft*. Some noted to really like boss battle and receiving experience, while for others the rewards did not matter much.

Moreover, the strong decrease in subtheme introjected regulation, compared to the lesser decrease in the CG, indicates that the students in the EG could feel less motivated to participate in relation to their ego or as a means to work towards their personal goals. The SEL-based stories in *Classcraft* did not seem to help the students work on their assignments to reach the goal of knowing what happens in the story. Several have 4 students found the stories anti-climactic either due to the story development itself or because of the interruption of the assignments. However, reviewing the data shows that the decrease in introjected regulation is probably related to the pressure to receive higher marks and to perform better than they previously did. This worsened in the post-questionnaire as their experiences, from both groups, showed a negative tendency. The students mentioned that improving their results was still their main concern however some students added the fear of needing to go to mbo. The factor of class expectancy played a significant role in the results of both student groups prior and post-test. Especially in relation to the possibility concerning (not) passing to have 5.

#### Amotivation

The final theme, amotivation is quite comparable among the two groups. Aside from their quantitative results they also mentioned the same factors that led to feelings of amotivation. The students that felt the most amotivation were those who were going to redo the have 4 school year, or those who were going to mbo. They noted the uselessness of their results and lack of purpose as the main reasons. The students who felt partially amotivated ascribed their lack of motivation to either being very proficient in English or finding English too complicated. This corresponds with one of the key factors of SDT since motivation can occur if a person is challenged (Deci & Ryan, 2017). Although the majority of the students found working in *Classcraft* okay, a recurring reason to not feel motivated working in *Classcraft* was that they either found it unclear or too complicated. Furthermore, at the start of the experiment some students had some trouble logging in which demotivated them and led to them not wanting to explore *Classcraft*. They perceived it to be too much effort. The students who already had a negative class expectancy by the time of doing the

experiment where already amotivated and could have felt putting in effort would be pointless. Even though it was a gamified experience, the students of the EG found it in general less motivating due to the time of the year. Some indicated it was too much trouble to learn something new, aside from it being fun or not. The upcoming test-week was considered to be more important.

### Limitations

It is essential to acknowledge the limitations inherent in this study. Since the discrepancy in N in the post-test questionnaire complicated analysis, it was paramount to rely more on the richness the qualitative data could bring. Luckily I was able to interview 11 students from the EG which allowed access to more in-depth qualitative data to enhance the analysis. Additionally, the 10 week *Classcraft* intervention was interrupted by unexpected class cancellations due to extracurricular activities. This might have influenced student motivation as either *Classcraft* offered them autonomy which allowed them to work on their own more effectively or it might have influenced their motivation negatively as students received less instruction and *Classcraft* input during the final weeks of the intervention. Moreover, the subjective nature of the qualitative analysis presents a possibility concerning research bias. This has been minimized via reflexivity and the triangulation of the data.

### Recommendations

For future research, I believe gamifying the EFL curriculum has merit, especially due to its positive effect on student autonomy and the class environment. Furthermore, while the changes in motivation that *Classcraft* was able to bring were slight and did not do much concerning overall motivation, it did affect their level of motivation to some extent. However, the intervention via *Classcraft* could possibly have had a better effect on student motivation if it was implemented earlier in the school year. Now the students who already felt demotivated, together with the students that were particularly focused on the upcoming test-week and the summer holiday, found it difficult to put effort into understanding, participating and enjoying the EFL curriculum in *Classcraft*. For that reason, future research regarding a gamified curriculum is highly recommended, only the intervention should not be carried out in the final period of the school year.

While the qualitative approach allowed for in-depth exploration, the findings of this study are context specific and may not be generalizable to all educational settings. Therefore future research in the have 4 EFL classroom at other secondary schools that could be categorized as traditional is needed.

### Conclusion

To conclude, the *Classcraft* intervention allowed the students of the EG to feel more autonomous and self-determined. It enhanced the classroom's atmosphere as the students were able to work better together. While working in *Classcraft* did affect their motivation regarding the themes of motivation, it was not as much as previously expected. Intrinsic motivation increased because some perceived *Classcraft* as fun and extrinsic motivation was mainly affected due to *Classcraft's* competitive component. Amotivation possibly decreased because of an increase in perceived autonomy.

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## Appendix 1: Pre-Questionnaire

## Wat vind ik van de Engelse les en waarom?

Hi!

Voor mijn masterscriptie doe ik onderzoek naar motivatie voor de Engelse les onder havo 4 leerlingen. Ik zou er erg mee geholpen zijn als je deze vragenlijst kan invullen. Voel je zo vrij om zo eerlijk mogelijk te zijn!

Alvast bedankt!

Theresa Gielen

**Toestemming:** Ik wil je om toestemming vragen voor het gebruiken van je antwoorden voor deze master thesis. De antwoorden worden anoniem verwerkt en zijn niet te herleiden naar jou.  
**Ik geef toestemming:** JA / NEE

Geef aan op de volgende pagina aan tot op welke hoogte je het eens bent met de stelling als antwoord op de vraag "Wat vind ik van de Engelse les en waarom volg ik de Engelse les?".

Dit zijn de opties:

- 1 = Totaal mee oneens
- 2 = Oneens
- 3 = Neutraal
- 4 = Eens
- 5 = Helemaal mee eens

## De Engelse les, wat vind ik ervan en waarom volg ik de Engelse les?

Zet één kruisje bij de gegeven opties per stelling.

1 = Totaal mee oneens

2 = Oneens

3 = Neutraal

4 = Eens

5 = Helemaal mee eens

Stellingen	1	2	3	4	5
1. Ik voel mij vrolijk wanneer ik iets nieuws leer tijdens de Engels les.	1	2	3	4	5
2. Ik vind de Engelse les leuk.	1	2	3	4	5
3. Ik voel me goed wanneer ik het beter doe dan de vorige keer.	1	2	3	4	5
4. Ik wil aan mijzelf bewijzen dat ik Engels kan.	1	2	3	4	5
5. Omdat voor mij Engels leuk is.	1	2	3	4	5
6. Ik had ooit goede redenen om Engels te volgen, maar nu vraag ik mij af of ik dat nog wel moet doen.	1	2	3	4	5
7. Ik voel me gemotiveerd om goed mee te doen omdat ik plezier ervaar wanneer ik een hoger cijfer haal dan eerder dit jaar.	1	2	3	4	5
8. Ik voel me beter dan anderen wanneer ik goede resultaten behaal.	1	2	3	4	5
9. Ik zie het nut er niet van in en, eerlijk gezegd, kan het me niets schelen.	1	2	3	4	5
10. Ik vind het leuk wanneer ik bezig ben met het begrijpen van een moeilijk onderwerp.	1	2	3	4	5
11. Ik wil aan mijzelf bewijzen dat ik een intelligent persoon ben.	1	2	3	4	5
12. Ik snap niet wat ik tijdens de les doe.	1	2	3	4	5
13. Ik wil aan mijzelf laten zien dat ik kan slagen in Engels.	1	2	3	4	5
14. Ik vraag hulp aan mijn docent wanneer ik dat nodig heb tijdens de Engels les.	1	2	3	4	5
15. Ik voel me fijn/veilig in deze klas tijdens de Engels les.	1	2	3	4	5
16. Ik kan goed opschieten met mijn klasgenoten tijdens de Engels les.	1	2	3	4	5

2

1 = Totaal mee oneens  
 2 = Oneens  
 3 = Neutraal  
 4 = Eens  
 5 = Helemaal mee eens

Stellingen met toelichting, omcirkel jouw antwoord.

17. Ik wil graag meer spelvormen in de Engels les.  
 Waarom vind je dat? Kan je een voorbeeld geven?

1	2	3	4	5
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18. Ik krijg genoeg ruimte om zelf te kiezen waar ik aan wil werken.  
 Waarom vind je dat? Kan je een voorbeeld geven?

1	2	3	4	5
---	---	---	---	---

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19. Tijdens de Engels les wil ik graag zelf aan de slag.  
 Waarom vind je dat? Kan je een voorbeeld geven?

1	2	3	4	5
---	---	---	---	---

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20. Ik vind dat ik goed mee doe met de uitleg tijdens de Engels les.  
 Waarom vind je dat? Kan je een voorbeeld geven?

1	2	3	4	5
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21. Ik vind dat ik goed werk aan de opdrachten tijdens de Engels les.  
 Waarom vind je dat? Kan je een voorbeeld geven?

1	2	3	4	5
---	---	---	---	---

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22. Hoe dat de docent mij lesgeeft motiveert mij voor de Engelse les.  
 Waarom vind je dat? Kan je een voorbeeld geven?

1	2	3	4	5
---	---	---	---	---

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23. Ik werk graag samen tijdens de Engels les.  
 Waarom vind je dat? Kan je een voorbeeld geven?

1	2	3	4	5
---	---	---	---	---

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24. Naar welke klas verwacht je volgend jaar te gaan? Omcirkel 1 optie.

Havo 5	Havo 4	MBO	Vwo 4	Weet ik nog niet
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Hoe beïnvloedt dit jouw motivatie?

Helemaal niet	niet echt	Beetje	redelijk	Heel erg.
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Kun je je antwoord een kort uitleggen in +/- 20 woorden.

**Ik ben een:**

- vrouw       non-binair  
 man       zeg ik liever niet

**Mijn leeftijd:** \_\_\_\_\_

Heb ik iets over het hoofd gezien of wil je graag nog wat meegeven? Dit mag gaan over wat je vindt van de Engelse les op school of over hoe gemotiveerd je je ervoor voelt en is nog niet hierboven genoemd. Let me know!

## Appendix 2: Added Questions Post-Questionnaire

# Post questionnaire

The post questionnaire is exactly the same aside from two questions that were added for both groups. To ease comparisons, these questions have been numbered question 25 and question 26.

The Classcraft questions have been numbered question 27 – 45.

### 2.1 Motivatie specifiek

Q25 Hoe zou jij het begrip ‘motivatie’ omschrijven? Schrijf dit kort op in +/- 20 tot 30 woorden.

*Om je op weg te helpen: Wat betekent motivatie voor jou? Wanneer voel jij je gemotiveerd?*

Q26: Wat werkt voor jou motivatie verhogend? (ter aanbeveling voor de Engels lessen volgend jaar).

*Mocht je vanwege jouw persoonlijke situatie meer, neutraal of minder gemotiveerd zijn wil ik graag van je weten hoe jouw motivatie beïnvloed kan worden. Dit met het oog op de Engels lessen volgend jaar.*

Toevoeging voor participanten uit de EG

### 2.2 Spelvorm: Classcraft

De afgelopen periode hebben jullie via Classcraft gewerkt aan unit 5&6. De volgende vragen gaan over jouw ervaring met Classcraft.

Bij de volgende vragen word je gevraagd om in te vullen op een schaal van 1 - 5 tot in hoeverre je het eens bent met de stelling.

1 = Totaal mee oneens

2 = Oneens

3 = Neutraal

4 = Eens

5. = Totaal mee eens

Per stelling is er ruimte voor toelichting.

Spelvorm: Classcraft

Q27 Het volgen van een verhaal bij het maken van de opdrachten motiveerde mij.

Q28 Ik werk in Classcraft omdat ik denk dat dit leuk is.

Q29 De omgeving van Classcraft motiveerde mij.

Q30 Ik span me in tijdens Classcraft omdat het van me verwacht wordt.

Q31 De bossbattle vond ik een leuke manier om stof te herhalen.

Q32 Er zullen goede redenen zijn om dit te doen, maar persoonlijk zie ik ze niet.

Q33 Werken via Classcraft maakte het voor mij makkelijker om zelfstandig te werken.

Q34 Persoonlijke krachten zou voor mij meer mogen worden toegepast.

Q35 Het krijgen van beloningen (gold, experience) werkte voor mij motiverend.

Q36 Het hebben van een avatar (een eigen poppetje) werkte voor mij motiverend.

Q37 Ik had meer begeleiding nodig van de docent.

Q38 Ik had meer met mijn team samen willen werken.

Q39 Werken met Classcraft is fijn om zelfstandig te doen.

Q40 Ik wil meer PETS!

Q41 Periode 4 was een goede periode om Classcraft te testen!

Q42 Mijn motivatie voor de Engels lessen is door het toepassen van Classcraft positief veranderd.

Q43 Dit vond ik positief aan Classcraft:

Q44 Dit vond ik negatief aan Classcraft:

Q45 Opmerkingen & Aanbevelingen wat betreft Classcraft:

Bijvoorbeeld: Wat zijn je aanbevelingen zodat Classcraft een groter effect kan hebben? Wat vond je goed gaan? Wat vond je minder goed?

## Appendix 3: Interview Protocol

Script voorafgaand aan het interview:

**[Controle groep:]** “Ik wil je nogmaals bedanken voor het meedoen aan dit interview voor mijn onderzoek. Via dit onderzoek probeer ik te achterhalen hoe motivatie en autonomie (zoals zelfstandigheid) ervaren, voornamelijk tijdens de laatste periode van dit schooljaar. Vervolgens kijk ik dan ook naar hoe spelvormen tijdens de Engelse les hier een effect op hebben.

Dit interview zal ongeveer 20 minuten duren. Ik zal je vragen stellen over de motivatie van je klas, van jou, hoe dat jouw motivatie werd (en wordt) beïnvloed, over zelfstandigheid en dit in combinatie met spelvormen.

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**[Experiment groep]:** “Ik wil je nogmaals bedanken voor het meedoen aan dit interview voor mijn onderzoek. Via dit onderzoek probeer ik te achterhalen hoe leerlingen van havo 4 motivatie en autonomie (zoals zelfstandigheid) ervaren, voornamelijk tijdens de laatste periode van dit schooljaar. Vervolgens kijk ik dan ook naar hoe dat spelvormen tijdens de Engelse les hier een effect op hebben.

Aangezien jij bij de groep hebt gezeten waar we hebben gewerkt met Classcraft wil ik je daar graag een aantal vragen over stellen.

Dit interview zal ongeveer 20 tot 30 minuten duren. Ik zal je vragen stellen over de motivatie van je klas, van jou, hoe dat jouw motivatie werd (en wordt) beïnvloed, over zelfstandigheid en dit in combinatie met Classcraft.”

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Voordat we starten wil ik nog wel even de toestemming met je doornemen.

In de klas heb je aangegeven dat ik je toestemming heb om een geluidsopname te maken van ons gesprek. Is dat nog steeds goed? Daarnaast, voor mij eigen leerlingen, nogmaals aangeven dat het anoniem is en dat de antwoorden die zij geven los staan van hoe ik hen zie als leerling en hoe ik hen beoordeel.

Ja: Bedankt! Laat het me weten wanneer je wil dat de opname stopt.

Nee: Bedankt dat je me dit laat weten. Ik zal alleen notities maken van wat er besproken wordt.

Nogmaals: alle gegevens worden anoniem verwerkt (en de antwoorden komen niet bij je vakdocent terecht). / Je antwoorden mogen zo eerlijk mogelijk zijn en hebben geen effect op hoe ik je zie of hoe ik je werk beoordeel.

Heb je verder nog vragen? Ja: beantwoord vraag. Nee: Prima, mochten er gedurende het interview vragen zijn voel je vrij deze te stellen. Ik zal zo goed mogelijk antwoord proberen te geven.

## START

**Script 1:** Om te starten ben ik benieuwd naar de motivatie van de hele klas en ook naar die van jou persoonlijk.

Laten we beginnen met de motivatie van de hele klas tijdens de les Engels. Bij deze vraag wil ik dat je terugkijkt op de afgelopen periode en kijkt naar de leerlingen in jouw klas tijdens de Engelse les.

**Q1:** 1. Omschrijf in een paar zinnen de motivatie van jouw klas voor de les Engels.

*Follow-up:* wanneer merk je een verschil in motivatie?

(Mocht de leerling moeite hebben met starten is dit een prompt:

- Zoals bij opdrachten)

*Follow-up:* Wat zijn jullie aan het doen tijdens de Engelse les wanneer je merkt dat jouw klas gemotiveerd is?

*Follow-up:* En dan nu ook de andere kant op: wanneer merk je dat jouw klas niet of minder gemotiveerd is tijdens de Engels les?

**Script 2:** We hebben het even over jouw klas gehad, je gaf hierbij \_\_\_\_ en \_\_\_\_ aan. Klopt dat? Uiteraard ben ik ook benieuwd naar jouw motivatie voor de Engelse les.

**Q2:** Op een schaal van 1 tot 10, waarvan 10 extreem gemotiveerd en 1 zeer gedemotiveerd: waar zit je zelf wat betreft je motivatie bij de Engelse les van de afgelopen periode/periode 4?

*Follow-up:* Kan je je keuze toelichten door aan te geven hoe jouw motivatie voor de Engelse les eruit ziet?

(Prompt: Omschrijf zo goed als je kan wat jij verstaat onder motivatie)

*Follow-up:* In de enquête kwam naar voren dat de overgang naar havo 5, of nog een keer havo 4 doen, naar vwo 4 gaan of overstappen naar het mbo van invloed is geweest op de motivatie voor de Engelse les (tijdens deze periode). Tot in hoeverre is dit op jou van toepassing geweest? (bij ongemak: alles wordt anoniem verwerkt!)

**Follow-up bij positief antwoord (leerling heeft hier mee te maken gehad):**

Wat voor invloed heeft dit gehad op jouw motivatie?

**Follow-up bij negatief antwoord (leerling heeft hier niet mee te maken gehad):**

Wat is jouw ervaring hiermee wat betreft klasgenoten? Prompt: Kan je een beeld schetsen van je klasgenoten tijdens de Engels les?

**Script 3:** Bedankt voor je antwoord (en je eerlijkheid *-dit kan best pijnlijk zijn-*). Om te zien wat jou motiveert tijdens de Engelse les wil ik je het volgende vragen:

**Q3:** Omschrijf een les/of een opdracht die jou heeft gemotiveerd.

*Follow-up:* Waarom was dit zo/ waarom had deze les of opdracht dat effect op jou?

(follow-up mocht het niet genoemd worden: Wat was het effect?)

**Script 4:** Bedankt voor je antwoord. Om even een overstap te maken naar een ander punt van de enquête, er kwam naar voren dat zelfstandigheid zeer werd gewaardeerd.

**Q4:** (Hoe) heb jij zelfstandigheid tijdens de Engelse les ervaren? En zo ja, hoe? (Zelfstandigheid is: eigen keuzes maken, keuze voor opdrachten op een ander niveau, etc)

*Follow-up:* Zou je hier wat aan willen veranderen? Zo ja, wat zou je graag anders zien?

**Script 5:** De volgende vraag gaat over spelvormen die tijdens de Engelse les worden ingezet om te helpen met begrip en met leren en/of oefenen. Nu ben ik benieuwd hoe dat jij tegen spelvormen tijdens de Engelse les aan kijkt. (bij onduidelijkheid voor leerling: voorbeeld Kahoot, Blooket, Classcraft).

**Q5:** Wat is jouw ervaring met spelvormen tijdens de Engelse les?

Follow up: Welke aspecten van deze spelvormen hebben volgens jou invloed op (jouw) motivatie?

final follow up: Kan een spelvorm jouw motivatie nog verbeteren? Zo ja, wat heb je daarvoor nodig? (zo neutraal mogelijk zijn: want gedemotiveerde lln )

Follow-up bij kort antwoord: vragen naar mogelijke valkuilen van spelvormen tijdens de Engels les die van invloed kunnen zijn op de motivatie.

- - - - - Vragen voor experiment groep - - -

**Script 7:** De afgelopen 8 weken hebben jullie via **Classcraft** gewerkt unit 5&6. De volgende vragen gaan over jouw ervaring met Classcraft, en de mogelijke invloed ervan op jouw motivatie en zelfstandigheid.

**Q7:** Naar aanleiding van de enquête was er vraag naar meer zelfstandigheid tijdens de Engels les. Heeft Classcraft dit jou kunnen bieden? Zo ja, hoe? Zo nee: kun je je antwoord verder uitleggen?

Follow-up: Wat was jouw ervaring hiermee?

**Q8:** Op wat voor manier had Classcraft een positieve invloed op jouw motivatie tijdens de Engelse les? *Prompt*

Follow-up: Op wat voor manier had Classcraft een negatieve invloed op jouw motivatie voor de Engelse les?

**Q9:** Tot slot: (Hoe) zou jij Classcraft inzetten om je eigen motivatie te vergroten?

Follow-up: Wat zijn je aanbevelingen? Wat betreft inzet van Classcraft, was periode 4 de juiste periode voor Classcraft?

EXTRA PROMPT: vragen naar beloningen mocht leerlingen er niet genoeg naar refereren: of andere onderdelen van Classcraft: ik verwacht dat leerlingen er veel over zeggen. Doen ze dit niet: is dit van zelfsprekend of had het niet de gewenste impact.

- - - - - Einde vragen voor experiment groep - - -

(Voor beide groepen volgt nu **Script 6** ter afsluiting van het interview.)

**Script 6:** We zijn aanbeland bij het einde van het interview. Je hebt me \_\_\_\_, \_\_\_\_ & \_\_\_\_ verteld. Heb ik dit zo goed samengevat?

Om het even terug te pakken. Dit onderzoek is gericht op motivatie onder havo 4 leerlingen voor de Engelse les, uiteraard ben ik ook benieuwd naar mogelijke aanbevelingen ter verbetering van de

lessen Engels wat betreft het aanspreken van motivatie. Dus, ben ik nog wat vergeten te vragen wat betreft jouw motivatie?

Follow-up prompt: op het gebied van de klas.

Final follow-up: Is er eventueel nog iets wat je graag zou willen aanvullen op wat we besproken hebben tijdens dit interview waar je niet de kans toe hebt gekregen?

