

The Effect of Gamification on English Language Anxiety and Grammar Achievement

Chapter 1

Introduction

Background of the study

In Indonesia, many students in higher education should take English proficiency test preparation class to achieve English proficiency test score required by the universities or the institution for various purposes. The tests are usually equal to paper-based TOEFL™, comprising three sections: Listening Comprehension, Structure and Written Expressions and Reading Comprehension. Failing to reach the required score would prevent them from following the intended program. To make it worse, they do not have enough time to prepare themselves to study for the test so it is not surprising if many of them failed the test even after completing more than one English proficiency test preparation classes. Therefore, students in this specific class experience a considerably high anxiety which can be considered as frustrating and might become detrimental to students' learning as stated by Kubanyiova (2006) that the quality of learning engagement in the classroom did not depend merely on students' cognitive ability but it was also influenced by complex motivational and affective factors (motivation, interest, anxiety, self-esteem and attitude). Among those affective factors, anxiety was quite possible to be the affective factor that most pervasively obstructed the learning process (Arnold & Brown, 1999).

Even though certain amount of anxiety is needed to drive learners to achieve their goals (facilitating anxiety), a high level of anxiety was claimed to give negative effects on the learning process (debilitating anxiety). Krashen (1985), Macintyre (1995), Ouwegbuigie (1999) and Wang (2005) agreed that anxiety might negatively influence the learners' language processing stages (input, processing and output stage). Anxiety might cause attention deficits, poor initial

processing of information (affective filter) or a “mental block” which influenced the language input and output. Therefore Horwitz (1986) suggests that it is fundamental to identify the anxious students in a foreign language class. Supporting this idea, six major sources of the Foreign Language Classroom Anxiety proposed by Young (1991) supported by other factors suggested by other researchers were defined to form three main sources of foreign language anxiety: learner’s characteristics, teacher’s characteristics, and classroom’s characteristics which are rarely explored in English proficiency test preparation classes. Learner’s characteristics include personal or interpersonal issues and learners’ belief about foreign language learning. Teachers’ characteristics include instructors’ belief about language teaching and instructor-learner interactions. Classroom characteristics include classroom procedures and language testing. The problems about students’ anxiety as illustrated above frequently happen in English proficiency test preparation classes in more than two language centers in Surabaya where the researcher works and they have inspired the researcher to select this specific topic in this study.

Among the three sections in English proficiency test , grammar has been considered as the most difficult, complicated and frustrating by the students in English proficiency test preparation class. It could be understood since grammar took the most portion in the syllabus of English proficiency test preparation class and required the most items to study compared to listening and reading. The preliminary survey revealed that the students’ grammar anxiety was higher than listening or reading. The students’ test score also frequently showed the lowest point in grammar section. The latest data taken before the experiment in 2015 from the population being studied revealed that out of 269 students of the STIKES where the research was conducted, 145 students (54%) had the lowest score in grammar section. This indicated that problems in grammar learning in English proficiency test preparation class had priority to focus on. Dealing with problems in grammar teaching and learning, some researchers suggested

to use explicit grammar teaching which contributed to better learning of grammar (Norris and Ortega: 2001, Ellis: 2012). This could be done by teaching grammatical rules (Ellis, 2001), providing practice exercises (Dekeyser, 2007), and explicit corrective feedback on errors (Ellis et al., 2006). As a matter of fact, these strategies had been used in English proficiency test preparation classes but it did not help the students' performance in grammar section. From this point the researcher is trying to explore strategies that could be used to incite student interests and encourage course engagement through a new approach in designing classroom activities.

In contrast to the English language learning which had been perceived as boring, unengaging and anxiety-provoking, video games had been considered as the most engaging past time (Prensky, 2001). Previous surveys given to students of two different universities prior to the study revealed that the majority of the students love playing various digital games in their leisure time. This indicates that students have a positive attitude about digital games, ranging from novice to addicted gamers. Digital games in their various forms have successfully appealed and stimulated the players for one main reason: they offered fun, pleasure and entertainment which most education could not. These frequently cause the students of all levels addicted to this modern game and this addiction which makes parents and educators skeptical about using digital games in education.

The fact above might imply that there was something in digital games which successfully engaged players, which was due to the combination of twelve elements: games were a form of fun (giving us enjoyment and pleasure), games were a form of play (giving us intense and passionate involvement), games have rules (giving us structure), games have goals (giving us motivation), games were interactive (giving us doing), games were adaptive (giving us flow), games provided outcomes and feedback (giving us learning), games provided win states (giving us ego gratification), games provided conflict/competition/challenge/ opposition (giving us Adrenaline), games provided problem solving (sparking our creativity), games had

interaction (giving us social groups), games provided representation and story (giving us emotion) (Prensky, 2001).

From this point the idea of DGBL (Digital-Game Based Learning) emerged and had been applied in education to enhance and improve learning. Digital games now had become one of the learning tools of students of this century. The 21st century students had been proven to learn faster when using this digital platform and its potential natures would be best suited the characteristics of today's students who could learn best through fun, enjoyable and stress-free activities. Furthermore, one research done in the area of digital games and education reported the empirical evidence behind five claims about the use of digital games in education: digital games were built on sound learning principles, provided more engagement, personalized learning opportunities, an environment for authentic and relevant assessment and taught 21st century skills (McClarty & Katie Larsen, 2012).

Addressing those two different phenomena above about students with their anxiety in foreign language learning and gamers with their games, the researcher is trying to investigate the possibility of integrating those two elements - digital games and language learning- in the classroom activities to reduce the students' anxiety. Unfortunately, DGBL has several constraints if applied in classes with low technology. First, it requires computer or digital gadget and not all classrooms are equipped with such facilities. Second, it requires certain software or applications which are designed specifically for learning context. Third, it also requires more time to prepare and to use the hardware and software. Not all schools or institutions are ready to prepare such applications in the classroom. In other words, DGBL requires more budgets compared to the non-DGBL method. For these reasons, the researcher is trying to bridge the gap between the need of today's students and the institution's and teachers' readiness to facilitate the 21st century teaching and learning.

If applying DGBL is not feasible, adopting only digital game concepts instead of using

games would be one of applicable solutions to overcome the existing problems. As suggested by Prensky, digital game concepts has the possibility to bridge the gap between education and digital natives. Bringing the digital game concept into the non-game context is called *gamification*. This term was first introduced by Deterding et al. (2011) to gain game-like effect in non-game context. Bringing the digital game concept is defined as applying the elements of digital games (reward, challenges, rules, story, badges, etc.) to non-game context such as education, training, and the like to give game-like positive effects (enjoyment, engagement, motivation, reduced tension, anxiety, etc.). The researcher would like to investigate further whether the students anxiety could be alleviated in gamified English proficiency test preparation class which eventually would improve the students' learning better. Furthermore, there is a necessity to shift from the unengaging and anxiety-provoking platform to the more suitable one to fit the need of the students of this generation.

This gamification intervention was selected for a number of reasons, but the major reason was its flexible nature which could be applied with or without digital devices and therefore it would be best suited for schools with low technology and for students and teachers who were not really ready for using technology in the classroom which might cause another anxiety for both the students and teachers. This gamification concept was aligned with one of five points suggested by Young (1990) for reducing the students' anxiety in the classroom: playing language game with emphasis on problem-solving. Furthermore, gamification fitted various grammar teaching strategies proposed by several researchers (explicit-implicit learning, noticing strategy, form-focus, etc.) and it could be adapted for various learners' style. Students could learn in their own level and got the feedback immediately about their learning progress. Most of all, it could be designed to provide multiple sensory stimuli for visual, audio or kinesthetic learners who might enhance their learning when using their respective learning style.

Grammar section became the focus on this study since among the three sections, it had the biggest portion in the amount of materials to cover in English proficiency test preparation class. Besides, sources of grammar materials for English proficiency test preparation test class were also easier to find and to gamify compared to the other skills (listening and reading). Most of all, the scarcity of research in this specific research area and the urgency to solve the existing problems draw the researcher's interest in this study.

The Research Problems

The study was aiming at addressing these questions:

1. Does gamified grammar activity model have a significant effect on students' foreign language anxiety in English proficiency test preparation class?
2. Does gamified grammar activity model have a significant effect on students' grammar achievement in English proficiency test preparation class?

The Objectives of the Study

The objective of the present study was to determine whether gamified grammar activities had a significant effect on students' foreign language anxiety and to determine whether gamified grammar activities had a significant effect on students' grammar achievement.

Theoretical Framework

This study was based on the digital game-based learning theory suggested by Prensky (2001) with his 12 engaging elements of digital game concept and a gamification model, MDA (mechanic, dynamic and aesthetic), proposed by Hunicke et.al, was employed to design the activities used in English proficiency test preparation class.

Relating to the students' anxiety, a theory of Foreign Language Classroom Anxiety (FLCA) learning) suggested by Horwitz (1986) had been applied. The FLCAS (Foreign Language Classroom Anxiety Scale) was used to measure the learners' anxiety level before and after the intervention. The scale had been used for numerous research in the world, and it was divided into 4 parts: communication apprehension, test anxiety, fear of negative evaluation and anxiety of English class (Na, 2007). The last item in the construct was experienced by many Asian students, including Indonesia where the research was conducted.

Scope and Limitation of the Study

Research studies showed that Foreign Language Anxiety was one of the influencing factors in foreign language learning which was different from the other kind of anxieties and this study was delimited to the learners' anxiety in English proficiency test preparation class in one STIKES in Surabaya.

It was a quasi experimental study involving 64 students in English proficiency test preparation classes. The limitation of this study was the relatively small sample size, short time allocation and specific type of classes focusing on single skill (grammar) which limited the generalizability of the research finding to the broader community.

The Hypotheses

Based on the theoretical framework above, the questions of the present study could be tentatively answered. Thus the following hypotheses were formulated.

Hypothesis 1. According to the Digital Game-Based Learning theory, the motivational nature of digital games combined with certain educational content would make learning more effective. The concept used in digital games could make the players engaged in the game

activities because of its stress-free nature. This kind of activities might reduce anxiety as stated by Horwitz and Cope (1986) that educators could help students cope with anxious students by making the learning context less stressful. Therefore, adopting the digital game potential concept into the grammar activity model might promote the students' engagement and reduced the anxiety. Saunders and Crookall (1989) also suggested that language games with an emphasis on problem-solving could be an effective way to create interest, motivate students, encourage participation and reduce language anxiety.

It was then hypothesized: *“The gamified grammar activity model has a significant effect on students' foreign language anxiety”*.

Hypothesis 2. Study done by several researchers indicated that significant negative correlations were found between general FLA and course grades (Aida, 1994; Coulombe, 2000; Elkhafaifi, 2005; Yan & Horwitz, 2008). This was also supported by MacIntyre & Gardner (1991) who stated that language anxiety experienced by learners of both foreign and second language possessed potential problems because it could interfere with the acquisition, retention and production of the new language (MacIntyre & Gardener, 1991, p. 86). This implied that anxiety might affect the students' achievement in language learning. Since research showed that games could replace the feelings of fear or anxiety felt by students in traditional settings with a desire to play, learn, and succeed (Gillipsie et al., 2010; Tüzün et al., 2009), it was then hypothesized:

“The gamified grammar activity model has a significant effect on students' achievement in English grammar learning”.

The Assumptions

This study was based on the following assumptions:

1. Anxiety was considered as one of the biggest inhibiting factors in the success of foreign language learning. The research was conducted to gain a better understanding of how language learners' anxiety could be positively affected during the language learning process.
2. Students' anxiety in English proficiency test preparation class could be improved through appropriate activity model.
3. Students anxiety in learning English would be improved if teachers could provoke the students' desire to engage in activities.
4. The reduced anxiety could improve the students' performance.

The limitation of this study was the relatively small sample size which might limit the generalizability of the research finding to the broader community.

The Significance of the Study

Several studies had been done on the impact of foreign language anxiety on students' learning and performance in general English class and mostly focusing on oral performance or speaking competence. This study in specific different area which had rarely been explored (anxiety in English proficiency test preparation class, grammar section) would give a new insight for further research in similar topic.

The intervention selected for this study (gamification) had actually been applied by many researchers in numerous research in various fields, but rarely in English proficiency test preparation class. The application of the selected strategy in this specific type of class would provide ideas for those involved in education game designer and educators who were interested in applying this strategy in language classroom. To sum up, this study was intended:

- a. to give different perspectives for the researchers, instructors and institutions involved in English proficiency test preparation class program.
- b. to provide information which could be transformed to help teachers reduce the students' anxiety in English proficiency test preparation classes.
- c. to provide information that could be used as the basis for developing syllabus and teaching materials of the English proficiency test preparation classes.
- d. to provide new ideas for educational game designers to create applicable games specifically for English proficiency test preparation class.

Definition of Key-terms

a. **FLA**

Foreign Language Anxiety is “a distinct complex of self perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process” (Horwitz,1991: p. 31).

b. **CA**

(Communication apprehension). “An individual’s level of fear or anxiety associated with either real or anticipated communication with another person or persons” (McCroskey:1977).

c. **TA** (Test anxiety)

“The tendency to become alarmed about the consequences of inadequate performance on a test or other evaluation. (Sarason ,1984, in Oxford, 1999).

d. **FNE**

(Fear of Negative Evaluation). “Apprehension about other’s evaluations, avoidance of

evaluative situations, and the expectations that others would evaluate oneself negatively” (Watson & Friend, 1969, cited in Horwitz, 1986, p.128).

e. **AEC**

(Anxiety of English Classroom). Anxiety related to the experience in the English classroom.

f. **FLCAS**

(Foreign Language Classroom Anxiety Scale).

g. **English proficiency test**

(English proficiency test). An English proficiency test which equals the standardized paper-based TOEFL.

h. **Gamification**

The use of game elements and game design techniques in non-game contexts.

i. **Gamified activities**

Activities applying game elements and game design techniques in non-game contexts.

j. **DGBL**

(Digital game-based learning). Applying or using digital game for learning

k. **Significant effect**

Effects that show progress or improvement:

-Significant effect on anxiety: Effect which results in reduced anxiety.

- Significant effect on achievement: Effect which results in improved/increased achievement/score.