



universität
wien

DIPLOMARBEIT / DIPLOMA THESIS

Titel der Diplomarbeit / Title of the Diploma Thesis

„Levels of Foreign Language Anxiety in the Austrian EFL Classroom. A Replication of Steinberg's and Horwitz's Study 'The Effect of Induced Anxiety on the Denotative and Interpretive Content of Second Language Speech'“

verfasst von / submitted by

Martina Tschida

angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of
Magistra der Philosophie (Mag. phil.)

Wien, 2016 / Vienna, 2016

Studienkennzahl lt. Studienblatt /
degree programme code as it appears on
the student record sheet:

A 190 344 299

Studienrichtung lt. Studienblatt /
degree programme as it appears on
the student record sheet:

Lehramtsstudium UF Englisch UF Psychologie
und Philosophie

Betreut von / Supervisor:

Univ.-Prof. Mag. Dr. Barbara Seidlhofer

ACKNOWLEDGEMENTS

I would like to express my most sincere gratitude and deep admiration to the people who have supported me in writing my diploma thesis who are...

...above all, my supervisor Univ.-Prof. Mag. Dr. Barbara Seidlhofer, who made writing this thesis an exciting and enjoyable experience. Not only did she inspire, guide and supervise this thesis with her expertise on applied linguistics and language teaching, but her positive mind and supportive attitude always encouraged me to continue working even in times of difficulties.

...my family, that is Edith, Heinz and Catherine, who have supported me in every single aspect of my studies. Thanks a million for granting me the opportunity to enjoy a good education at university, for always giving me the feeling that I could achieve my goals without putting too much pressure on me, and for being such great role models.

...my partner and best friend, Georg, who always believed in me and who made me believe in myself too. Thank you for being there for me, for pushing me to work harder when necessary, but also for spending the much needed study breaks with me. I honestly could not have asked for a better friend and support during this intense and exhausting time.

...Mag. Gerger and Mag. Prikosovits volunteering as raters for my study, Dr. Dorner, the school's headmistress, giving me permission to conduct the study, and the participants of my study.

DECLARATION OF AUTHENTICITY

I confirm to have conceived and written this paper in English all by myself.

Quotations from other authors and any ideas borrowed and/or passages paraphrased from the works of other authors are all clearly marked within the text and acknowledged in the bibliographical references.

Vienna, May 2016

Martina Tschida

Table of contents

List of abbreviations.....	iii
List of figures	iv
List of tables	iv
1. Introduction	1
2. Foreign Language Anxiety: Theoretical framework and key concepts	2
2.1. The definition of Foreign Language Anxiety	3
2.2. Classifying Foreign Language Anxiety: Trait Anxiety, State Anxiety or Situation-specific anxiety?	6
2.3. The impact of Foreign Language Anxiety: Facilitating and/or Debilitating?.....	7
2.4. Foreign Language Anxiety and Achievement in Language Courses.....	8
2.4.1. Foreign Language Anxiety and its relation to oral performance.....	12
2.4.2. Foreign Language Anxiety and its relation to listening, reading and writing skills.....	15
2.5. Foreign Language Anxiety and Motivation.....	20
2.6. Foreign Language Anxiety: Is it cause or effect?	21
2.7. Factors contributing to the presence of Foreign Language Anxiety.....	22
2.8. Identifying Foreign Language Anxiety among learners	23
2.9. Instruments for measuring Foreign Language Anxiety	24
2.9.1. Quantitative measures of FLA as a situation-specific anxiety	25
2.9.2. Qualitative measures of FLA as a situation-specific anxiety	27
2.9.3. Mixed methodologies to measure FLA as a situation-specific anxiety.....	29
2.10. Implications for teaching	30
3. Empirical research – A replication study	32
3.1. The original study: “The effect of Induced Anxiety on the Denotative and Interpretive Content of Second Language Speech” by Steinberg and Horwitz	32
3.2. The replication approach.....	33
3.3. Methodology	35
3.3.1. Instruments	35
3.3.1.1. The Thematic Apperception Test (TAT)	36
3.3.1.2. The State - Trait Anxiety Inventory (STAI).....	37
3.3.2. Participants	39
3.3.3. Procedure	39
3.3.4. Data Analysis.....	41

4. Results	42
4.1. Findings of the replication study.....	42
4.2. Comparison between the findings of the original study and the replication study	47
5. Problems in conducting the replication study: A reflection.....	49
5.1. Issues with replicating the original study.....	49
5.2. Limitations of the replication study	51
6. Interpretation of results.....	53
6.1. Replication study	53
6.2. Differences between the findings of the original study and the replication study.....	54
7. Implications for pedagogy	57
8. Conclusion and outlook	59
9. References	63
Appendices	72
Appendix A.....	72
Picture 1.....	72
Picture 2.....	73
Picture 3.....	74
Rater Instructions.....	75
STAI German Version Form X1	76
Total frequencies of item choice on the STAI for the nonanxiety group	77
Percentages of item choice on the STAI for the nonanxiety group	78
Total frequencies of item choice on the STAI for the anxiety group	79
Percentages of item choice on the STAI for the anxiety group	80
Transcript of study.....	81
Appendix B	91
English Abstract	91
German Abstract (Deutsche Zusammenfassung)	92

List of abbreviations

EFL	English as a Foreign Language
ELT	English Language Teaching
ESL	English as a Second Language
FL	Foreign Language
FLA	Foreign Language Anxiety
FLCAS	Foreign Language Classroom Anxiety Scale
FLRAS	Foreign Language Reading Anxiety Scale
ICC	Intraclass Correlation Coefficient
L1	First Language
L2	Second Language
MAACL	Multiple Affect Adjective Checklist
SAD	Social Avoidance and Distress
SPSS	Statistical Package for the Social Sciences
STAI	State - Trait Anxiety Inventory
TAT	Thematic Apperception Test

List of figures

Figure 1: Rating scale for the TAT pictures.....	41
Figure 2: Means of total score per subject.....	43
Figure 3: Mean score per picture per subject per rater in original and replication study.....	48
Figure 4: Percentages of people who reported feeling anxious on the questionnaire	48

List of tables

Table 1: Total scores per subject per rater.....	42
Table 2: Interrater reliability for scores.....	44
Table 3: Mann-Whitney U test for testing a significant difference between group means of TAT scores.....	45
Table 4: Means of anxiety levels as reported on the STAI.....	45
Table 5: Mann- Whitney U test for STAI scores.....	46
Table 6: Correlation between score on TAT and anxiety level on STAI.....	46
Table 7: Mean score on TAT per picture per subject per rater.....	47

1. Introduction

When the procedure for this study was explained to the participants, the majority seemed eager to take part in the study. However, when they realized that they would be required to use English to complete the tasks, the enthusiasm among the learners declined rapidly, with a few pupils not wanting to participate at all. Unintentionally and even before having actually started the study, this was the first incidence of Foreign Language Anxiety (FLA), the topic being explored in this thesis.

This diploma thesis aims to explore the relationship between FLA among EFL learners and their use of denotative and interpretive utterances in spoken language. It is an attempt to replicate a study by Steinberg and Horwitz conducted in the United States in 1986, in order to compare and contrast their findings with the current research. Although the variables of age, country and mother tongue have been altered in the replication, it is assumed that Steinberg's and Horwitz' findings also hold true for the study at hand, i.e., that a negative correlation between levels of FLA and the amount of interpretive language, i.e. language that goes beyond the description of the actual elements of reality, will be found.

The first part of the paper presents the literature review, which provides the theoretical background essential to the understanding of the research undertaken. First, the concept of FLA will be introduced, by giving its definition as well as its characteristics. Exploring a more general concept of anxiety from a psychological perspective is inevitable in order to fully understand the construct of FLA. There follows a section discussing the classification of FLA by illustrating the differences between trait anxiety, state anxiety and situation-specific anxiety. Subsequently, the nature of FLA and its debilitating and/or facilitating role in language learning will be discussed by looking at various studies arguing in favor of either of these two effects. This, in turn, leads to the question of whether FLA is actually cause or effect, which will be dealt with in the subsequent section. Having explored the theoretical framework of FLA, the focus is then shifted onto its practical implications for the classroom, to understand which factors contribute to FLA and how FLA can be identified. A brief outline of various instruments for measuring FLA is also provided.

The second half of this thesis is an account of the empirical study carried out, starting with an

outline of the original study, followed by sections describing the research design of the replication study, which was adapted from the original one to fit the scope of this thesis as well as the resources available. Then the data collected are presented: first, in isolation, and afterwards, an attempt is made to interpret the results in relation to the theory and findings of Steinberg and Horwitz. The problems with replicating the study and the limitations caused by the replication are discussed, followed by an exploration of the implications of the research results for English Language Teaching (ELT) practices. The conclusion summarizes the theoretical and empirical parts of the thesis and outlines further questions for possible future research.

The choice of FLA as the topic for my thesis was primarily motivated by the fact that it is a phenomenon which spans both my main subjects of study: English and Psychology. Since applied linguistics has always been the most interesting sub-discipline to me, I wanted to tackle the challenge of conducting research in this area myself. A further motivation for exploring FLA was its particular relevance for my future teaching career. For me, being a good teacher does not only mean being equipped with the necessary linguistic and pedagogical knowledge, but also implies knowing about ongoing processes that might impact or even interfere with my pupils' learning. Foreign Language Anxiety is one of the phenomena a teacher needs to be familiar with, in order to be able to recognize, react to and deal with it in the classroom by applying certain teaching techniques as well as by providing students with specific coping strategies.

What follows is my attempt to shed light on this widespread, yet often unexplained and underexplored phenomenon of FLA.

2. Foreign Language Anxiety: Theoretical framework and key concepts

Foreign Language Anxiety (FLA) is a phenomenon that will, sooner or later, consciously or unconsciously, affect nearly every language learner engaged in acquiring a second or foreign language. It is in those situations when we are asked to speak spontaneously in front of an audience in a language that is not our mother tongue, or when we are about to sit a test to prove our level of proficiency, that we often feel anxious about not having the necessary language skills to master the task at hand. Although it is likely that the majority of language learners experience the above-mentioned feeling at least once within the process of acquiring a second or foreign lan-

guage, very few may know that they are dealing with a complex phenomenon that can have a great impact on how languages are experienced, processed and performed. The following chapter explores the nature and characteristics of FLA. It is worth mentioning that in this thesis, the terms Foreign Language and Second Language are used interchangeably, as are Language Anxiety, Foreign Language Anxiety and Second Language Anxiety, as this was also the case in the literature reviewed.

2.1. The definition of Foreign Language Anxiety

The term “Foreign Language Anxiety” was coined by Horwitz E., Horwitz M. and Cope (1986). They were pioneers in research on Foreign or Second Language Acquisition, and they defined the concept of language anxiety as “[...] a distinct complex of self-perception, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process” (1986:31). Thus, learning a language causes specific reactions within learners and, given that such reactions occur whenever one is in contact with this second or foreign language, then one is dealing with FLA.

Horwitz et al.’s (1986) conceptualization of FLA is the one most widely used in the current literature and will also be used throughout this thesis. However, to understand what it means to suffer from FLA, it is essential to start by exploring what the term anxiety *per se* means, which requires delving further into the discipline of psychology.

Summing up the views on anxiety from a psychological perspective, it can be said that anxiety is an affect (cf. Scovel 1978, Ellis 1994, Brown 2000), i.e., a feeling evoked within a person by some sort of stimulus. Research on anxiety has shown that anxiety has a strong power over various dimensions of peoples’ lives, one of which is learning (Scovel 1978: 131). Chastain (1978), for instance, labels it an intrinsic motivator stemming from within the learner. Horwitz et al. (1986: 125), Scovel (1978: 131) and MacIntyre (1999: 27) observe that anxiety leads to certain changes in the nervous system resulting in unease and concerns. Moreover, Scovel (2001: 127) points out that anxiety, despite our society’s common misuse of the term, cannot be used interchangeably with the words fear and phobia, as those take different forms. In his view “anxiety is most accurately used to describe a sense of unease” (Scovel: 2001: 127). Considering anxiety in the learning context, Tobias (1979: 573) says that “[a]nxiety is one of the major psychological

variables in education”. It can therefore be concluded that anxiety constitutes an essential variable in learning. And that includes foreign languages, of course. Thus, the question that arises is how anxiety can be described in the foreign language context and how it affects the language acquisition process.

From the psychological literature reviewed, it can be concluded that FLA, like general anxiety, represents a psychological construct which is negative in nature, like worry, nervousness, doubts and fear (Horwitz et al. 1986). Whereas anxiety in general may arise in a diversity of situations and as a reaction to different stimuli, FLA is a situation-specific anxiety occurring only through contact with a language other than one’s first language, and causing physical as well as emotional reactions (Horwitz et al. 1986). Gardner and MacIntyre (1993:158) go along with this view, stating that FLA is “the apprehension experienced when a situation requires the use of a second language with which the individual is not fully proficient”. Since foreign language classes constantly require learners to apply a language they might not feel proficient in, and to take the risk of making mistakes, the likelihood of being affected by FLA is vast, or, as MacIntyre (1999: 7) puts it “[...] in learning a second language there are many opportunities for the individual to experience embarrassment [...]”.

Since language classes constantly put pressure on learners, the sources of FLA are quite diverse. Horwitz et al. (1986: 127) relate FLA to three subcategories of anxiety: (1) communication apprehension, (2) test anxiety, and (3) fear of negative evaluation. Although FLA is not simply a combination of those three elements but rather a distinct concept which includes other dimensions, the authors claim that these subgenres of anxiety are integral elements of FLA.

Communication apprehension was first defined by McCroskey (1970: 270) as “a broadly based anxiety related to oral communication”, which is triggered by the fear of possible misunderstandings in conversations with others due to insufficient language skills (Horwitz et al. 1986: 127). Foreign language classes are especially frightening for people affected by Communication Apprehension because it is almost certain that there will be circumstances in a foreign language where at least one utterance cannot be understood or when the speaker is not able to express every single thought adequately. In an earlier study using the Social Avoidance and Distress (SAD) scale, Watson and Friend (1969) considered the same phenomenon that Horwitz et al. (1986) called Communication Apprehension. Participants who reported being affected by SAD were

also found to be “[...] avoiding being with, talking to, or escaping from others for any reason” and demonstrated the “[...]experience of a negative emotion, such as being upset, distressed, tense, or anxious, in social interactions [...]” (Watson & Friend 1969: 449).

The second subcategory, test anxiety, describes anxiety occurring in test situations. Students who exhibit this type of anxiety usually set their standards too high and if these are not met, they interpret their performance as a failure (Horwitz et al. 1986: 127- 128). Due to the frequency of tests and revision sessions in foreign language classes, test anxiety is a common phenomenon. A study carried out at Yale University by Gordon and Sarason (1955) showed that people suffering from test anxiety tend to experience more generalized anxieties in different situations as well. A positive correlation between test anxiety and other anxieties was calculated for the majority of their 389 tested students (Gordon & Sarason 1955: 320).

Lastly, fear of negative evaluation refers to anxiety about making a bad impression on others due to what one says (Horwitz et al. 1986: 128). It is not restricted to tests, but can appear in any situation where one’s performance might be evaluated. As a consequence, one tries to avoid any evaluative situation such as meetings, job interviews or conversations with one’s boss (Watson & Friend 1969: 449).

Williams (1991: 23) has a different perspective on the conceptualization of FLA, or what he calls “ESL/EFL classroom anxiety”. In his view, the anxiety experienced in the foreign language context involves three elements which are:

- I: An external element: A situation that is anxiety-provoking.
- II: A receptive element: An acceptance or perception that a situation is anxiety-provoking.
- II (sic): An expressive element: A psychological and/or somatic response to numbers one and two that is measureable or observable. (Williams 1991: 23).

The external element is the learning environment; the receptive element describes how people feel about the learning environment, i.e., whether it makes them feel anxious or not; and the expressive element is the behavior resulting from a learning environment which is considered by learners to be anxiety-provoking.

2.2. Classifying Foreign Language Anxiety: Trait Anxiety, State Anxiety or Situation-specific anxiety?

The study of FLA and its origins has yielded three main schools of thought: FLA as state anxiety, FLA as trait anxiety, and FLA as a situation-specific anxiety (MacIntyre & Gardner 1991a, Oxford 1999). Which of these approaches to adopt depends largely on whether researchers argue that FLA is actually a form of general anxiety triggered by any source which is then only transferred to and experienced in the foreign language setting, or whether it is believed to emerge exclusively in situations connected to a foreign language (Horwitz & Young 1991: 1) The first approach is based on the belief that FLA is an inherent feature of the individual concerned, and that it is consistent over time and in various settings. The possibility that FLA could be a significant feature of an individual and one which might function “[...] as a general personality trait that is relevant across several situations” (MacIntyre & Gardner 1991a: 87) was primarily supposed and tested in early research in this field (cf. Levitt 1980, Spielberger 1983).

However, the notion of FLA being a trait of individuals is not accepted by all researchers. For Mischel and Peake (1982) and Endler (1980), for example, “state anxiety” is the most accurate label for FLA, whereas trait anxieties are not relevant in the discussion of FLA. In the view of the above authors, the perspective of FLA as a trait is useless, since traits do only reveal general behavioral patterns instead of providing information about an individual’s behavior in a specific setting. FLA indeed only occurs in the foreign language context, which is why labelling FLA a trait would be inappropriate. As mentioned in Section 2.1., FLA refers to the “uniqueness of the language learning process” (Horwitz et al. 1986: 31) and is not comparable to general anxiety. Taking this view, FLA falls into the category of state anxiety which is believed “[...] to indicate how they [individuals] feel at a particular moment in time [...]” (Spielberger 1983: 3). The dividing line between trait and state anxiety is also drawn by Dörnyei (2005: 198), who explains the difference as follows:

Trait anxiety refers to a stable predisposition to become anxious in a cross-section of situations; state anxiety is the transient, moment-to-moment experience of anxiety as an emotional reaction to the current situation.

The third approach offers yet another consideration of FLA, as a situation-specific anxiety. According to MacIntyre and Gardner (1991a: 90) anxieties of this kind “[...] can be seen as trait

anxiety measures limited to a given context”. In other words, this perspective includes the uniqueness of the language learning situation and the fact that this specific context always arouses a feeling of anxiety. The strength of this approach lies in the fact that it attempts to eliminate sources unrelated to foreign language learning and takes into account precisely those aspects which define FLA: oral performance, sitting examinations and being assessed, i.e. Communication apprehension, Test Anxiety and Fear of negative evaluation. (cf. Horwitz 1986).

More recent studies tend to classify FLA as a situation-specific phenomenon (Horwitz 2001: 112), emphasizing the unique character of FLA as opposed to anxieties in other settings. This thesis opts for the situation-specific approach, and FLA will henceforth (unless explicitly stated otherwise) be investigated from this perspective only.

2.3. The impact of Foreign Language Anxiety: Facilitating and/or Debilitating?

Nowadays, it is assumed among the majority of researchers that FLA “[...] is a predictor of success in language class [...]” (MacIntyre & Gardner 1989: 254). In addition to cognitive factors, it is believed to play a vital role in mastering a foreign language (cf. Krashen 1981, Arnold 1999, Phillips 1992, Ehrmann & Oxford 1995), with Gardner and MacIntyre (1993: 183) among other scholars even claiming that it is “the best single correlate of achievement”. However, there is no consensus as to whether FLA is facilitating or debilitating in nature, i.e., if it fosters or impairs language acquisition. Scovel (1978) explains the distinction between the two concepts of facilitating anxiety and debilitating anxiety as follows:

Facilitating anxiety motivates the learner to “fight” the new learning task; it gears the learner emotionally for the approach behavior. Debilitating anxiety, in contrast, motivates the learner to “flee” the learning task; it stimulates the individual emotionally to adopt avoidance behavior. (Scovel 1978: 139).

In other words, FLA is said to have either a positive impact in that it encourages the learner to make even more effort, or it can lead in the opposite direction, preventing further learning due to the learner avoiding any contact with the target language. Whereas most scholars argue in favor of either of the above-mentioned effects of FLA, very few claim that there is no significant correlation at all between FLA and mastering a second or foreign language (Scovel 2001). Whether language acquisition has been successful or not has mainly been tested using indicators of

achievement, i.e., course grades or scores on proficiency tests. The inconsistency of the findings may be due to the application of different measures of anxiety using varying concepts of anxiety, e.g., general anxiety, state anxiety and trait anxiety. As these concepts are distinct in nature (see Section 2.2.), it would seem only logical that different measures also yield different results.

2.4. Foreign Language Anxiety and Achievement in Language Courses

The area that has been mostly researched in terms of the purported impact of FLA on language learning is achievement in an academic sense. Language learners at different proficiency levels, in distinct educational institutions and with various L1s were studied in order to determine how the learning of a second or foreign language is dependent on the presence or absence of FLA. The question has always been whether FLA fosters or impedes foreign language acquisition.

A vast amount of the literature on this topic supports the notion of the debilitating nature of FLA (cf. Krashen 1981, MacIntyre & Gardner 1989, 1991b, 1991c, 1994a, 1994 b, Gardner 1989, 2010, Arnold 1999, Horwitz 2001, Dörnyei 2005, Yan & Horwitz 2008). Researchers convinced of the harmful nature of FLA argue that the existence of FLA impedes the learning process and therefore, leads to lower proficiency levels. This assumption of a negative correlation between FLA and achievement in a foreign language has been based mostly on final course grades or exam grades. Such measures of language proficiency have been used as indicators of achievement and they have been measured against reported levels of FLA (cf. Phillips 1992, Aida 1994, Horwitz 2001). Awan et al. (2010: 37), for instance, found a negative correlation between levels of FLA among Pakistani learners of English and their average course grades So did Oda (2001: 18), with Iraqi EFL students. Phillips (1992) discovered that low-anxiety students produce more complex language.

Other scholars related FLA to performance on specific tests, such as MacIntyre's and Gardner's study on French Class Anxiety, in which they found an inverse relation with scores on a vocabulary test (1989), with teacher evaluation and self-ratings (Gardner & MacIntyre 1993) and proficiency tests (Gardner et al. 1987; Young 1990).

According to Arnold (1999:8), "anxiety is quite possibly the affective factor that most pervasively obstructs the learning process". Why FLA might lead to language deficits is nicely summa-

rized by Eysenck (1979: 364), who states that “[...] the task-irrelevant information involved in worry and cognitive self-concern competes with task-relevant information for space in the processing system”. And in Krashen’s view (1981: 29), the negative influence of FLA derives from the fact that high levels of anxiety go hand in hand with strong affective filters which in turn means that the full potential of the language learner cannot be realized. In his Affective Filter Hypothesis, Krashen (1981: 22) asserts that “performers with high or strong filters will acquire less of the language directed at them, as less input is ‘allowed in’ to the language acquisition device”. According to this argument, FLA causes interference at all stages of the language learning process: input, processing and performance (MacIntyre 1991 a, 1991b, 1994 a, 1994 b, 2002, Gardner 1985, 1989, Tobias 1986), resulting in lower proficiency levels than would be achieved without the presence of FLA. This model of interference in the three cognitive stages of learning comes from Tobias (1979: 575), who explains the impact of anxiety on learning as follows:

Since learning is a process that is essentially cognitively mediated, anxiety can affect learning only indirectly by impacting on the cognitive processes mediating learning at various stages.

Interference at the input stage leads to further harm at the processing stage. New vocabulary or grammar items are processed less clearly in the mental lexicon due to negative emotions (MacIntyre 1999: 35). When it comes to the output stage, learners may fail to produce the desired language utterances in a satisfactory manner. Again, it is the affective filter which is responsible for the apparent language deficits because it prevents the language user from accessing what s/he has stored before.

The harmful effect of FLA is also neatly illustrated by Dörnyei (2005: 198), who states that “[...] in an anxiety-provoking climate our L2 knowledge deteriorates: we forget things that we otherwise know and also make silly mistakes”. Hence, FLA might impede achievement in the second/foreign language even in learners who might have the cognitive capacities to master the language. In the view of Williams (1991: 25), who defines FLA as “[...]a response to a condition in which the external element is or is perceived as presenting a demand that threatens to exceed the students’ capabilities and resources for meeting it”, the impediment occurs as follows:

The acceptance of the situation as threatening then manifests itself as a psychological emotion and/or physiological response which acts as a distractor that divides and diverts the student’s focus and therefore lowers the amount of attention and effort that otherwise could be

used to master the task presented.

As a result, learners may seem less proficient or less fluent in the target language. This does not mean that they lack accuracy or fluency in general, but rather, that the presence of FLA prevents them from making full use of their linguistic resources. It is also possible that only one language skill, for example, pronunciation, deteriorates, whereas others are still able to be developed fully (Swain & Burnaby 1976).

Thus, from the perspective of FLA as a debilitating force, the key to effective foreign and second language learning would seem to be to keep the affective filter as small as possible by minimizing FLA (Krashen 1981: 31).

However, this perspective has its opponents, who ascribe to FLA an at least partly beneficial role (cf. Kleinmann 1977, Scovel 1978, Bailey 1995). Scholars of this view base their arguments on studies where, in certain instances, the presence of FLA promotes language acquisition and as a consequence, brings about better performance. For instance, this effect was observed in a study by Bailey (1995: 185), who found that French Class Anxiety deriving from the fear of lagging behind her classmates and getting low grades on exams actually encouraged her to study even harder. The competitiveness she experienced motivated her to put more effort into her language learning rather than showing avoidance behavior. However, she also admits that too much pressure and too-high levels of anxiety hindered her from achieving her goals. What she seems to be suggesting is that a certain level of FLA might enable learners to push themselves beyond their own limits, but that anything above that level works against successful language acquisition. That a boost in effort might make up for the interference caused by FLA was already posited in Eysenck's (1979) study on the cognitive processing stage of second language acquisition. Bailey strengthens her idea of a facilitating role of FLA by reviewing studies showing similar tendencies (Jones 1977, Leichmann 1977, Moore 1977, Wasleben 1977, Schuhmann 1978, Fields 1978 qtd. in Bailey 1995). The call for a balanced level of FLA is further promoted by Brown (1994: 143), who suggests striving for "[...] an optimal point along its continuum [...]", a request that is in accordance with a scientific law by Yerkes and Dodson (1908) which states that:

Im wesentlichen behauptet das Yerkes-Dodsonsche Gesetz, daß die Beziehung zwischen der als Antrieb aufgefaßten Angst und dem Lernen den Charakter einer kurvenlinearen Funktion hat. Ein niedriges Angstniveau erleichtert das Lernen nur geringfügig oder gar

nicht, wahrscheinlich weil die Motivation, die es erzeugt, nicht ausreicht, die Leistung zu beeinflussen. Ein hohes Antriebsniveau beeinflusst den Lernprozeß dahingehend, daß die Leistung der bei einem niedrigen Antriebsniveau erreichten gleicht oder geringer wird als diese. Das Antriebsniveau, das zu einer optimalen Leistung führt, liegt irgendwo im mittleren Bereich der Antriebsintensität. [Essentially, the Yerkes-Dodson law states that the relationship between anxiety experienced as a driving force, and learning, has the characteristic of a curvilinear function. A low level of anxiety facilitates learning only slightly or not at all, perhaps because the motivation that is produced by it is not sufficiently large to influence the performance. A high level of drive influences the learning process in such a way that the performance is equal to or lower than the performance produced by a low level of drive. The level of drive that leads to an ideal performance lies somewhere in the middle of the two drive intensities]. (Levitt 1987:122).

Gass et al. (2013:462) support Levitt's (1987) take on the effect of FLA, stating that "[...] anxiety, like many other factors [...] has a curvilinear effect on performance: low levels help, whereas high levels hurt". Williams (1991) also acknowledges both the positive and the negative role of FLA and claims that whether FLA will function as a facilitating or debilitating influence depends on the levels of FLA. Chastain (1975: 160) adds that "perhaps some concern about a test is a plus, while too much anxiety can produce negative results".

In his later work, Scovel (2001: 129) affirms the neutral nature of FLA, stating that "[...] anxiety is neither good nor bad when it comes to human behavior; it remains a natural emotion that plays varying roles on the emotional stage of our life". Ehrman and Oxford (1995: 79) even found both facilitating and debilitating forces in their Affective Survey and Williams (1991), too, suggests that these two anxiety forms might compensate for each other which, ultimately, would lead to there being no significant difference in the overall outcome.

It would seem that there is no final answer in the debate about whether anxiety has a facilitating or debilitating role. Research proving that FLA can have both a positive and negative impact demonstrates that its facilitating or debilitating character always depends on anxiety levels.

Irrespective of which role is ascribed to FLA, whether debilitating, facilitating or neutral, it should not be forgotten that FLA is only one of many individual factors that might affect language acquisition (MacIntyre 1999: 24). Many other factors; cognitive, affective and personal, might come into play as well and cannot always be eliminated as a factor for possible variation in performances.

2.4.1. Foreign Language Anxiety and its relation to oral performance

As already mentioned above, FLA may interfere with all stages of the learning process, with the result that overall achievement in a language might suffer to a great extent. Not only are all three cognitive phases of the acquisition process affected by FLA, but it is also noticeable in all of the four skills, i.e., listening, reading, writing and speaking. Although all forms of communication can create FLA and can be influenced by it, not all of these four skills are equally affected by FLA. Reading and writing seem to be less anxiety-provoking compared to speaking and listening, which trigger high levels of FLA among language learners. Previous research has shown that oral activities cause the largest amount of FLA (Horwitz 1986, Young 1990, 1991, Aida 1994, Liu 2006a), so they will be discussed in more detail below. Moreover, since the empirical study which is part of this thesis also includes a speaking task, it is worth examining the link between speaking and FLA more closely.

According to Young (1990: 539), who investigated the relation between oral achievement and FLA extensively, “speaking in the foreign language is often cited by students as their most anxiety producing experience”. In her interview study, Young (1986) observed a close link between oral proficiency ratings and scores on various anxiety scales (State-Trait Inventory by Spielberger 1983, Foreign Language Anxiety scale of reactions by Horwitz 1985, a Self-Report of anxiety by Young 1986, and the Cognitive Interference Questionnaire by Wine 1985) and found that future teachers’ oral performance in Spanish, German and French deteriorated when FLA levels rose (Young 1986: 443). The same effect was detected by Phillips (1992): in her study on the correlation between FLA and scores on a French oral test, she was able to “[...] confirm that students with higher dimensions of language anxiety tended to say less, to produce shorter CU’s¹, and use fewer dependent clauses and structures than low anxiety students” (Phillips 1992: 18). Her influential study was replicated by Hewitt and Stephenson (2012), who revealed a similar effect on Spanish students of English. The authors confirmed Phillips’s findings, detecting the same negative correlation between levels of anxiety and oral exam performances (Hewitt & Stephenson 2012: 179).

The subjects in a study by Price (1991: 105) also cited speaking as the one aspect that was most

¹ CU refers to an “independent clause with all its modifiers [...]” (Phillips 1992:16).

anxiety-provoking in their French class. Issues that concerned learners were that peers might laugh at them for an insufficient proficiency in French, for making mistakes or for mispronunciations (Price 1991). In a study of Chinese learners of English, Liu (2007) lists further sources of speaking anxiety in the foreign language which have been claimed to be responsible for FLA. Closer examination of their subjective experience of speaking in English generated the following list of FLA sources: lack of vocabulary and a generally low level of proficiency which hinders learners from expressing their thoughts thoroughly; insecurity due to insufficient practice units since student talking time is very limited in language classes; the fear of making a lot of mistakes in their speech and a fear of making a fool of themselves (Liu 2007: 128-130).

Horwitz et al. (1986: 126) also acknowledge that “difficulty in speaking in class is probably the most frequently cited concern of the anxious foreign language students seeking help at the LSC². Horwitz et al. (1986: 126) go into further detail, adding that spontaneous speech which cannot be planned in advance is the major cause for FLA, whereas prepared speaking tasks do not cause as much anxiety.

Other aspects which might come into play in generating anxiety during spoken activities are personality factors (Osboe, Fujimura & Hirschel 2007: 3). The extent to which speakers were extraverted or introverted in their L1 (Japanese) determined how anxiety-provoking they considered oral elements of the English course. The aspect of extraversion and introversion had a very strong positive correlation with anxiety levels, whereas the perceived level of proficiency did not seem to influence speaking anxiety (Osboe, Fujimura & Hirschel 2007: 3).

The impact FLA has on spoken utterances can vary from learner to learner, with some students “freezing”, i.e., being unable to produce any oral output and therefore withdrawing from the situation, and others only being able to use very fragmented speech and thus, producing non-fluent and hesitant talk. Often, learners’ speech is peppered with mistakes since the anxiety makes them forget things they actually know. These indicators were observed in Chinese students of English by Liu (2006 b: 19), for instance. One of his subjects reported the following about an anxiety-provoking speaking situation in her English course:

I felt nervous every time I was picked to give a talk. If I am asked to speak English without

² LSC is the Learning Skills Center at the University of Texas (Horwitz et al. 1986: 126).

preparation, maybe I can only speak out some easiest sentences. I have no confidence in my English, so I am afraid of it. (Liu 2006b: 19).

It was also found that the content produced in the target language differs between anxious and non-anxious students. Steinberg and Horwitz (1986: 134) discovered that the speech of anxious learners was much more denotative and objective compared to the very personal and interpretive language of non-anxious students. Denotative refers to “the actual meaning of a word, rather than the feelings or ideas connected with the word” (<http://www.macmillandictionary.com/dictionary/british/denotation>), whereas interpretive speech is described by Steinberg and Horwitz (1986: 133) as “[...] going beyond the elements actually present”. When three pictures were shown to the participants of their study, the descriptions of non-anxious students went beyond the actual depictions, whereas the others only described the actual elements in the pictures without creating a story around them. Steinberg’s and Horwitz’ findings are of particular relevance here, since it inspired the replication study conducted as part of the thesis at hand, which aimed at exploring whether learners in a different context, with a different L1, and of different age would exhibit behavior similar to the participants of Steinberg’s and Horwitz’ study. The outcome of the replication study is presented in Section 4.

In 2003, Gregersen conducted a study similar to the one by Steinberg and Horwitz (1986), which focused on the variation of content rather than on accuracy in the target language. In an oral interview study, she observed that highly anxious students of English gave much more superficial answers to the questions asked (Gregersen 2003: 27). Compared to the low-anxious learners, they were “[...] reticent about discussing more intellectual or emotional ideas” (Gregersen 2003: 28).

Liu and Huang (2011: 1) put it quite well when they summarize the effects of FLA on oral production as follows:

[...] high-anxious students tend to perform worse than their low-anxious peers; they also tend to speak (more) briefly and sometimes even inaudibly. Highly anxious learners can even speak with shaking hands and/or legs; some even go blank when having to speak the target language. Thus, many choose to remain silent in class and thus their oral proficiency in the target language just falls down or becomes lower [...].

Despite the observed effect of FLA on speaking, Young (1986: 63) finally ascribes a less im-

portant role to FLA, claiming that ability is actually more salient to achievement than FLA.

2.4.2. Foreign Language Anxiety and its relation to listening, reading and writing skills

Although FLA seems to be most pervasive in speaking activities and speaking skills, reading, listening and writing may also cause anxiety among learners. In fact, FLA associated to skills other than speaking actually has the same origins: students assuming that they only have limited linguistic resources, a fear of negative evaluation, and perfectionism. The impact of FLA on reading, listening and writing in the target language is similar to foreign language speaking anxiety and therefore, mostly harmful in nature.

In terms of the writing skill, the area that was explored in early studies was limited to the L1. (Daly 1979, Smith 1984, Pajares & Johnson 1994). Among others, Daly and Miller (1975) showed that there is a negative correlation between writing anxiety and achievement in the L1. The anxiety experienced while composing a text was labeled “writing apprehension” (Daly & Miller 1975) and categorized as a subgenre of communication apprehension. The definition and manifestations of writing apprehension provided by Daly and Miller are presented below:

Individuals with high apprehension of writing would fear evaluation of their writing, for example, feeling that they will be negatively rated on it. Thus they avoid writing when possible and when forced to write exhibit levels of anxiety. They expect to fail in writing, and logically they should since they seldom engage in it. In classroom situations they will be the individuals who consistently fail to turn in compositions, who do not attend class when writing is required, and who seldom enroll voluntarily in courses where writing is known to be demanded. (Daly & Miller 1975: 244).

Writing anxiety that appears in the foreign language context has therefore been called foreign language writing anxiety since then, and a separate scale of measurement, the Foreign Language Writing Anxiety Scale, was developed to test it (Young 1990). Nevertheless, the debate as to whether poor writing skills are caused by writing anxiety or whether writing anxiety is caused by poor writing skills persisted for quite some time (Daly 1979).

As in the L1, the reasons why learners might experience writing anxiety in a foreign or second language are diverse, but most concern focuses on linguistic deficits in the target language (Silva 1993: 33). In the study that compared writing in the L1 to writing in the L2, the students’ main

worry was that their level of proficiency in English was too low to produce a well-written text. In comparison to their L1 writing, which is presumably less anxiety-provoking, their English papers featured the following characteristics:

These texts tend to be shorter and less developed and to receive lower quality ratings. Their paragraphs are less unified. Working in the L2, ESL writers seem to have fewer cohesive resources and less control over those they possess. They use less figurative language. Their smaller L2 vocabularies result in less ability to recognize words' subtle nuances. Also, they make more errors overall. (Silva 1993: 28).

Liu and Ni (2015: 54), too, observed this detrimental effect on the written performance. Chinese students of English who were affected by anxiety during a written production task were found to score lower compared to less anxious students. Apart from achievement, the subjects' own attitudes towards their level of English writing skills were the best predictor for the outcome of the text (Liu & Ni 2015: 56). Thus, foreign language writing anxiety seems to be linked not only to performance but to self-confidence as well. In addition, the subjects in Silva's study also draw attention to another aspect of writing in a language that is different to writing in the mother tongue. The culture of the L2 community has to be taken into account and to be reflected in the writing as well, which might not always be easy, given that the author him-/herself is an outsider in the L2 community (Silva 1993: 35). And this not only impacts on the content of a text, but might also require adaptation in terms of levels of formality, structure and writing guidelines in general. Thus, writing in the L2/FL demands a lot, and in some cases too much, of language learners, so that they develop an anxiety towards it, which then hinders the writing process, or vice versa, as stated above.

In a later study, Cheng (2002) explored writing anxiety among learners of English in Taiwan. In his attempt to connect writing anxiety to different variables within and outside the learner, it was found that L2 writing anxiety strongly correlated with the presence of other anxieties in the foreign language class (Cheng 2002: 651). In contrast, no correlation was observed between L1 writing anxiety and L2 writing anxiety, which might be due to the above-mentioned differences in L1 and L2 writing as observed by Silva (1994) and the fact that they actually constitute two completely different phenomena, which are independent from one another (Cheng 2002: 652).

Like foreign language writing anxiety, the link between reading and anxiety in foreign language courses has not been studied to a great extent. This is often due to the belief that reading and

writing are perceived as “private performances” that do not need to be addressed and practiced in the classroom (Lee 1991: 50). Only recently has research focused more on the impact anxiety has on the reading skill (Lee 1991, Saito et al. 1999, Sellers 2000). Lee (1991: 50) notes that “[...] language anxiety takes up processing capacity, thereby diminishing language learners’ reading performance”. In other words, if learners are affected by language anxiety, this takes up such a great number of their mental processes, so that they can no longer concentrate enough on the reading task. The feeling of failing the reading task in turn creates anxiety about reading in the target language. Therefore, as Lee (1991) pointed out, reading anxiety is closely related to general language anxiety.

Another source of reading anxiety in the L2 is the belief that learners have to understand every single word in order to comprehend the overall text (Lee 1991: 56). However, this is a misconception that causes severe pressure among readers. Lee stresses that this misconception is also supported by inappropriate reading tasks and practices. For instance, if a reading task is always accompanied by comprehension questions, then the readers’ attention is drawn away from the overall meaning of the text while focusing too much on short paragraphs. In attempting to answer all the questions, learners feel the urge to understand all the vocabulary, which constitutes an impossible task for them (Lee 1991: 52). However, not only are the testing formats inadequate. Lee (1991: 52) also mentions that reading *per se* is actually neglected in foreign language teaching, mainly due to time limits. Leaving learners alone with their reading exercises has severe consequences, though. Lee warns language instructors against making learners solely responsible for their reading:

When reading is treated as a private act, readers are isolated from one another; they do not communicate. Readers who experience difficulty can certainly begin to feel that they are the only ones who are having difficulties with the text because they have no reference point. They can internalize their fears rather than externalize them simply because they are alone. (Lee 1991: 52).

In addition, the perceived threatening nature of reading activities also stems from other sources. Saito et al. (1999: 203) consider two factors to be responsible for reading anxiety in the L2: “a) unfamiliar scripts and writing systems and b) unfamiliar cultural material”. That means that readers may feel anxious if they do not know certain language items of a text or because the text features some content they cannot make sense of because they are not part of the L2 community.

When reading anxiety arises, the results of reading tasks decrease (Saito et al. 1999: 211), which confirms the negative correlation between foreign language reading anxiety and foreign language reading proficiency. In particular, the amount of content of a text that is remembered suffers if students experience reading anxiety (Sellers 2000: 516).

Brantmeier (2005: 76) found conflicting evidence concerning the impact of reading anxiety on reading comprehension. When she examined English learners of Spanish at the advanced level, she found no correlation between levels of reading anxiety and task achievement. An explanation that was offered is that reading anxiety decreases with years of language instruction, because learners become more and more familiar with the reading process (Brantmeier 2005: 73). However, one interesting aspect was that students actually reported feeling more anxious due to the follow-up activities than because of the reading itself (Brantmeier 2005: 74): knowing that they had to complete a post-reading task triggered higher anxiety levels than just reading the text for its own sake.

Levels of reading anxiety in the L2/FL are measured using the Foreign Language Reading Anxiety Scale (FLRAS) which examines “[...] self-reports of anxiety over various aspects of reading, their perceptions of reading difficulties in their target language, and their [students’] perceptions of the relative difficulty of reading compared to the difficulty of other language skills” (Saito et al. 1999: 204).

The appropriate treatment of texts in the classroom is, therefore, an essential way of reducing reading anxiety. If reading is excluded from the curriculum, then readers will not be able to express their anxieties, learn about misconceptions and develop specific reading techniques to help them understand even difficult texts. The selection of appropriate-level texts is also a salient feature of diminishing reading anxiety. Instructors must ensure that the language content of the text does not exceed the proficiency level of their students (Saito et al. 1999: 216).

Like speaking, listening in the foreign language is often listed as the most anxiety-provoking skill (Horwitz et al. 1986, Vogely 1998a, von Wörde 2003). The main reason why listening may cause such strong negative feelings among learners is that students have no control over the listening input (Kim 2000). Kim (2000: 3) remarks that “[...] when L2 learners are involved in

listening activities, typically, they are not allowed to control the topic, speed, or volume of the speech”), whereas they can – at least to some extent – with other skills. For instance, although speaking requires spontaneous language production, the learners themselves decide on the content of their speech. With reading, learners can go back and re-read certain passages which they might not have understood the first time. Writing allows the author to think about the text in advance, to collect ideas and to make drafts, and to edit and proofread once the paper is written. This amount of control and the opportunities for self-correction are not available with the listening skill at all. Instead, “[...] students can be presented with information delivered swiftly, just once, and then can be asked to quickly respond” (Vogely 1998 a: 107). Consequently, they view the listening process and tasks which require good listening skills as threatening. Learners who “[...] complain of difficulties discriminating the sounds and structures of a target language message. [...]”, “[...] have difficulty grasping the content of a target language message[...]”, and/or “[...] have little or no idea of what the teacher is saying in extended target language utterances” (Horwitz et al. 1986: 126) are very likely to experience foreign language listening anxiety.

The sources of listening anxiety are diverse, as Vogely (1998b) discovered in her study of Spanish students. One source of anxiety was the input itself. The speech might be too fast or peppered with different accents and flawed intonation. Moreover, the level of difficulty might not always be appropriate. If the students are lacking a purpose and clear instructions for the listening tasks, this leads to unease as well (Vogely 1998b: 70). In addition, learners struggle with listening because they are not equipped with specific listening techniques, they are not used to completing the task while listening, and they cannot really prepare for listening tests since every recording and test format is different (Vogely 1998b: 71-72). Wang (2010: 564) ascribed similar sources to listening anxiety. In his study, Chinese learners of English named accent, fast speech and limited repetition as the main reasons for listening anxiety in their English class.

Furthermore, students expect that it is necessary to understand every single word that is used in the classroom to be a successful listener (von Wörde 2003: 5). As with reading, the evoked fear of not being able to manage the listening task, in turn, interferes with their listening proficiency (Kim 2000). For anxious learners, “[...] the signal, as the original listening input, decays rapidly and the listener may fail in the simple decoding of discrete information [...]” (Kim 2000:3). This negative impact of listening anxiety has been observed by Elkhafaifi (2005: 212), who found that learners of Arabic had lower final course grades if they reported suffering from listening anxiety.

Listening anxiety is not only restrictive to successful listening *per se*: it might influence other areas of language learning as well. Vogely (1998: 68), for instance, emphasizes that “L[istening] C[omprehension] anxiety can undermine speech production because, in order to interact verbally, the listener must first understand what is being said”.

Since listening anxiety not only severely influences listening comprehension, but other skills as well, it would be useful to use specific strategies to keep listening anxiety to a minimum. Vogely (1998a: 108) reminds language instructors that it is essential for them to raise their own awareness and to be sensitive about their own speech with regard to pace, accent and intonation. Furthermore, levels of listening anxiety are largely dependent on the listening material, which is why teachers have to carefully select listening materials of an appropriate level of difficulty and which learners can relate to (Vogely 1998a: 109). If learners can relate to the content of recordings and use their prior knowledge to complete tasks, then it will be a less anxiety-provoking experience for them. Lastly, instructors must not forget to address listening anxiety overtly in their classes and to provide learners with specific listening techniques such as using the context to predict the meaning of unfamiliar words and listening for detail (Vogely 1998a: 115). Wang (2010: 565) also adds that presenting visual input along with spoken scripts is one technique to decrease listening anxiety, as this provides a reference point for learners who might otherwise be unable to relate to the listening task.

2.5. Foreign Language Anxiety and Motivation

Inverse connections have not only been examined for FLA and achievement, but are also present for FLA and motivation (Ehrman & Oxford 1995, Alrabai 2011). Gardner and MacIntyre (1993: 166) found that anxiety impacts motivation and vice versa since “high levels of motivation are likely to abate anxiety, and high levels of anxiety are likely to inhibit motivation”. Liu (2009) as well as Yan and Horwitz (2009) remark that higher levels of FLA contribute to lower motivation and that this is relevant to learners’ achievement (Liu & Huang 2011). This goes hand in hand with Arnold’s (1999: 60) observation that “harmful anxiety can be related to plummeting motivation[...]”. Levine (2003) found the same effect in his study on what he called “target language use” and “target language anxiety”. His subjects reported they were reluctant to use the target language in case they experienced target language anxiety (Levine 2003: 353). In other words, as

anxiety increased, the motivation to participate in the foreign language class decreased. However, contrary to these findings, the majority of subjects claimed that target use was a “rewarding and worthwhile challenge” (Levine 2003: 351).

Thus, like the link between FLA and achievement, the relation between FLA and motivation has not been completely clarified yet and requires further research.

2.6. Foreign Language Anxiety: Is it cause or effect?

The literature reviewed above suggests that FLA can be the source of decreased language proficiency and lower levels of motivation. However, some scholars disagree with this approach and claim that FLA is an effect of poor language learning rather than its cause. For instance, Sparks and Ganschow (1991: 4) see the origin of FLA in ability deficits deriving from problems in the first language. In their view, apprehension and worry in the foreign language “[...] may only be symptoms-behavioral manifestations of a deeper problem.” (Sparks & Ganschow 1991: 6). Sparks and Ganschow borrowed the term *linguistic coding* from Vellutino and Scanlon (1986) and introduced the Linguistic Coding Deficit Hypothesis to explain where this deeper problem lies, and relates to how sounds, structures and meaning are stored in the language users’ minds. People facing problems with this in their native language are very likely to be less successful in learning foreign languages (Sparks & Ganschow 1991: 10) and consequently develop FLA as a reaction to difficulties and possible failure. These findings were supported by a later study (Ganschow, Sparks, Anderson, Jovorsky, Skinner & Patton 1994), in which a significant correlation between speaking and writing competence in the native tongue and proficiency in the foreign language was found. Participants with lower native oral and writing skills scored lower on foreign language tasks and also reported higher levels of FLA (Ganschow et al. 1994: 49). These results consolidate the claim that foreign language aptitude is dependent on how competent one is in the first language and that anxiety is a consequence of poor foreign language learning, which is, in turn, caused by poor native language learning.

The hypothesis that FLA is purely the product of low native language proficiency and insufficient foreign language knowledge was severely criticized by MacIntyre, (1991: 95), who emphasized that “affect is more than a manifestation of aptitude. Also refuting Ganschow et al.’s (1991, 1994) claims, a study by Chen and Chang (2004) found that how the foreign language

learning is experienced was a much more decisive factor for difficulties in the second or foreign language than learners' ability in their first language. Chinese learners of English who reported having experienced an unpleasant "English learning history" (Chen & Chang 2004: 283) showed significantly more FLA than their classmates. However, there is an aspect on which Chen and Chang agree with Sparks and Ganschow (1991), and that is that they perceive FLA as a product of learning difficulties instead of its cause, stating that "[...]students whose learning experience has been negative and who have suffered low grades are more prone to anxiety"(Chen & Chang 2004: 284).

2.7. Factors contributing to the presence of Foreign Language Anxiety

As discussed in previous sections, FLA is experienced as the "worry and negative emotional reaction aroused when learning or using a second language" (MacIntyre 1999: 27). FLA constitutes a situation-specific anxiety which means that those negative feelings appear consistently and regularly whenever the person is exposed to or has to use the foreign language. How the development of FLA as a situation-specific anxiety comes about can be explained as follows:

After experiencing repeated occurrences of state anxiety, the student comes to associate anxiety arousal with the second language. When this happens, the student expects to be anxious in second language contexts; this is the genesis of language anxiety. (MacIntyre 1999: 31).

In other words, at first, learners might only feel randomly anxious during foreign language situations, without necessarily connecting this fear to the language itself. However, if foreign language contexts are repeatedly associated with negative feelings, learners get used to this coexistence and an anxiety reaction is established. Thus, this stimulus and response are internalized and occur whenever they come into contact with the foreign language.

At the same time it has to be noted that not all foreign language contact is equally likely to trigger FLA: certain factors may contribute more to an anxiety-provoking language learning climate than others. The teacher or language instructor plays a salient role in the presence or absence of FLA (Price 1991: 106). Learners report that the chosen form of instruction, the classroom atmosphere, and teacher support are important aspects of creating a learner-friendly and anxiety-free environment. Moreover, harsh and obtrusive error correction is intimidating and demotivating

for learners (von Wörde 2003: 6, Riasati 2011: 911) and can undermine an otherwise positive relationship between instructor and learner, which is essential for successful learning (Horwitz et al. 1986, Aida 1994). A teacher who talks quickly and who covers a vast amount of material in a short time period can overstrain students and could also lead to FLA (Onwuegbuzie 1999). Furthermore, activities centered around reading and writing are not as anxiety-provoking as speaking and listening, which, according to Horwitz et al. (1986) and Liu (2006a), boost levels of FLA since speaking and listening require learners to apply the language spontaneously and the outcome cannot be foreseen (Horwitz et al. 1991:30). Apart from that, anxiety levels also vary according to different teaching methods and approaches. For instance, Chastain (1975) discovered that the audiolingual approach was more prone to triggering FLA than other teaching methods. Specific conditions which expose students to consistent surveillance by either the teacher or their peers, and exert strong pressure on them to perform well – as is the case in testing situations – also trigger high levels of FLA (Onwuegbuzie 1999). Extreme comparison with and a high sense of competitiveness towards peers also induce higher levels of FLA (Yan & Horwitz 2008). Gardner and MacIntyre (1994) conducted research which proved that the introduction of a video camera led to an increased amount of anxiety, which again resulted in lower scores in the input, processing and production phases of a vocabulary-learning task. In addition, students themselves can contribute to anxiety in the classroom by either showing humiliating behavior towards others when the others make mistakes, or by not preparing well for class and therefore performing poorly themselves (Riasati 2011: 911). In addition, self-perception is a major factor of FLA. Onwuegbuzie et al (1999: 225-227) found that individuals' expectations about their performance in language classes were the decisive factor for success in a course. Additionally, demographic factors such as age and gender also influence levels of FLA, as FLA is predominantly an issue for older learners (MacIntyre & Gardner 1991, 1999; Gardner, Clement, Smythe & Gliksmann 1976, Onwuegbuzie, Bailey & Daley 1999) and men are overall more affected than women (Awan et al 2010: 37).

2.8. Identifying Foreign Language Anxiety among learners

Although FLA can be difficult to identify because it is such a complex construct and its manifestations may vary from individual to individual and from culture to culture, it is not always necessary to use quantitative and/or qualitative anxiety tests to find out whether learners are experiencing FLA. Observing the following behavior with pupils could hint at the presence of FLA:

- Avoidance behavior: this can range from not attending the course at all to sudden blanks when asked to answer a question; unwillingness to participate and speak in class; brief, unsatisfying, inaccurate and non-fluent language utterances; decreased interest and motivation to learn (Steinberg & Horwitz 1986: 131; Arnold 1994:66; Levine 2003: 352).
- Movements such as shaking, writhing, trembling, touching random items (Horwitz et al. 1986: 129) or signs of speech impediment such as stuttering or problems with sounds specific to the foreign language (Arnold 1994: 66).
- The tendency to suffer from pain such as headaches or stomachaches or heavy perspiration which is not connected to a medical condition on the part of the learner (Arnold 1994: 66; Oda 2011: 8).
- Various other behavioral patterns including self-consciousness, exaggerated ambition and unrealistic expectations, general shyness and little contribution in class (Arnold 1994: 66).

Often, learners also verbalize their distress about the language class so that it becomes explicit for teachers. Price (1991: 103), for instance, found that anxious students described the language course as “horrible”, “awful” or even claimed they “hated” it.

Although Young (1991) introduced a classification of factors contributing to FLA, including the above-listed aspects and many others, a more detailed discussion of the classification is beyond the scope of this thesis. In short, her suggestion is that all factors that cause FLA originate from either “1) personal and interpersonal anxieties, 2) learner beliefs about language learning; 3) instructor beliefs about language teaching; 4) instructor-learner interactions; 5) classroom procedures; and 6) language testing (Young 1991: 427).

2.9. Instruments for measuring Foreign Language Anxiety

To date, a number of attempts have been made to measure FLA in the language class. To achieve this, various research instruments, mostly quantitative, but also qualitative or mixed methodologies, have been developed. Most of these instruments differ in the anxiety construct applied, i.e. test anxiety, communication anxiety, or fear of negative evaluation, as well as the categorization of FLA, i.e. whether the anxiety is considered to be trait-, state- or situation-specific. Consequently, the questionnaires vary in terms of item selection, scoring systems and results. Apart

from a large number of anxiety-measuring instruments available, only a few can be discussed in greater detail here. Selected were those which either aim at measuring FLA specifically as a distinct construct while neglecting other forms of anxiety, or instruments which also test for other types of anxiety but which have aided the development of later specific FLA measures.

The measures presented here take various research approaches, i.e. quantitative, qualitative, and mixed methods. Researchers opting for any of these measures obviously emphasize its respective strength while highlighting the negative aspects of other methodologies. One concern that relates to all measures using self-reports in any form is raised by Oller (1981: 19), who says that subjects are likely “[...] to give answers that are associated with the respondents’ perceptions of the predispositions of the interviewer”. In other words, the participants might be able to guess the purpose of the study and consequently respond to items accordingly. Another issue often involved in self-reports is that of “self-flatter” (Oller & Perkins 1978), meaning that participants only tend to give answers which are acceptable and desirable for themselves. If the answers are intended to make a good impression on the researcher, then this phenomenon is named “the approval motive” (Oller & Perkins 1978). Although subjects would have to be very sensitive to the items of a questionnaire to detect possible desired outcomes and purposes, these are all aspects that should be kept in mind when working with self-report measures.

Despite all the various measurements of FLA available, attention must be drawn to the fact that it remains a psychological construct which may take different forms for any individual and that therefore is difficult to measure quantitatively. Tucker (1979: 3) makes an important point regarding the measuring of affective variables, stating that “[...] their precise description and measurement remain a problematic issue”. Similarly, Bailey (1995: 164) stresses that “defining, manipulating, and quantifying affective factors pose serious problems for researchers”. Thus, the tests listed below, although they have yielded interesting results, must be treated with caution and might not necessarily be applicable to other contexts without the outcome changing.

2.9.1. Quantitative measures of FLA as a situation-specific anxiety

One important quantitative instrument for the development of a specific FLA measure is the Attitude/Motivation test battery by Gardner et al. (1979). What makes this instrument so essential is that it investigates not only linguistic aspects of language acquisition; it also aims to test non-

linguistic features of language instruction, one of which is anxiety. The battery of tests was first used with English-speaking Canadians studying French as their L2 in either elementary or secondary schools, but it is nowadays available for other contexts and languages as well. There are 19 categories of language instruction examined tested with this battery of tests:

1. Attitudes toward French Canadians
 2. Interest in Foreign Languages
 3. Attitudes toward European French People
 4. Attitudes toward Learning French
 5. Integrative Orientation
 6. Instrumental Orientation
 7. French Class Anxiety
 8. Parental Encouragement
 9. Motivational Intensity
 10. Desire to Learn French
 11. Orientation Index
 12. French Teacher – Evaluation
 13. French Teacher – Rapport
 14. French Teacher – Competence
 15. French Teacher – Inspiration
 16. French Course – Evaluation
 17. French Course – Difficulty
 18. French Course – Utility
 19. French Course – Interest
- (Gardner 1985: <http://publish.uwo.ca/~gardner/docs/AMTBmanual.pdf>)

Each of the 19 subscales consists of a certain number of items exploring how the subjects feel about various aspects in the foreign language class. The following five items constitute the subscale “French Class Anxiety”, which is the one of interest for this thesis, and answers range from *strongly disagree* to *strongly agree* on a 7 point Likert scale.

1. It embarrasses me to volunteer answers in our French class.
2. I never feel quite sure of myself when I am speaking in our French class.
3. I always feel that the other students speak French better than I do.
4. I get nervous and confused when I am speaking in my French class.
5. I am afraid the other students will laugh at me when I speak French. (Gardner 1985: <http://publish.uwo.ca/~gardner/docs/AMTBmanual.pdf>)

The scores for the individual subscales are then grouped together into four main scores, which Gardner et al (1985) call “composite indices”. The final scores are calculated for “(1) Integrativeness (2) Motivation (3) Attitudes towards the Learning Situation (4) Attitude/Motivation Index (AMI)” (Gardner 1985: <http://publish.uwo.ca/~gardner/docs/AMTBmanual.pdf>). The medi-

an reliability coefficient for the complete test is 0.85. The real significance of this test, however, is that the French Class Anxiety scale is the first scale to specifically test for anxiety connected to foreign language learning. The results of this scale are also meaningful since they proved a significant negative correlation between the presence of FLA and indicators of language proficiency (Horwitz et al. 1986: 126). The French Class Anxiety scale was also used in a later study by Gardner et al. (1997). In this study, the authors used a slightly modified version of the French Class Anxiety scale to test for the impact of and the relationship between individual factors of SLA. Anxiety represented one of those aspects and was investigated not only using the French Class Anxiety scale, but also using the French Use Anxiety scale (Gardner et al. 1997) which is yet another subtest of anxiety in the language context. Like the French Class Anxiety scale, it consists of ten items, five indicating the presence of FLA and five reflecting the absence of FLA. Results showed a negative correlation between those anxiety measures and achievement scores in French as the L2 (Gardner et al. 1997: 351).

The Foreign Language Classroom Anxiety Scale (FLCAS), by Horwitz et al. (1986), is by far the most common method for measuring FLA today. It has gained popularity because it successfully measures FLA as a situation-specific anxiety with its three elements of communication apprehension, test anxiety, and fear of negative evaluation (Horwitz et al. 1986: 129). The questionnaire consists of 33 items directed towards gauging either the presence of FLA, e.g. “(1) I never feel quite sure of myself when I am speaking in my foreign language class”, or its absence, e.g. “(2) I don’t worry about making mistakes in my language class” (Horwitz et al. 1986: 129). The scale was first administered to 75 students in an introductory Spanish course at an American university, and showed that those students who reported being affected by FLA scored particularly high on the Likert scale on items indicating speech anxiety, which confirms that speaking activities are the major source of FLA in the language class (Horwitz et al. 1986: 129). Another advantage of the FLCAS is its high internal reliability with an alpha coefficient of 0.93. The alpha coefficient or Cronbach’s alpha is a statistical measure to calculate internal consistency reliability of tests and can range from 0 to 1. The closer the coefficient is to 1, the higher is the internal reliability of a test (Dörnyei 2007: 206).

2.9.2. Qualitative measures of FLA as a situation-specific anxiety

In addition to the quantitative studies of FLA, some researchers have used another approach to

measuring FLA, namely by means of qualitative measures. The most popular form of qualitative instruments seems to be diary studies where language learners record their experiences while acquiring a second or foreign language. Linguists working with diary studies are well aware of the possible limitations of such studies. Bailey (1995: 176), for instance, addresses the issue of the generalization of the results found in those studies and whether self-reported observations can actually be trusted and stresses that it is essential “[...] for the diarist to record his or her feelings honestly and openly during the initial data collection phase or diary study” and that experience must not be “[...] censored if it were painful or embarrassing for the diarist” (Bailey 1995: 169). Bailey kept these criteria in mind when she kept a journal while studying French as an L2 at college. When reviewing her diary, she identified competitiveness as a major drive in her language acquisition (Bailey 1995: 171). This competitiveness was noticeable in the way she compared herself with other students on the course and the desire to outperform them. However, as she did not manage to fulfill the goals she had set for herself, she experienced high levels of anxiety (Bailey 1995: 171). The result of her exaggerated competitiveness and the anxiety it triggered was that she began to play truant from the language classes. Consequently, her French skills suffered, leading her to find not only a correlation between competitiveness and anxiety, but also a link between anxiety and achievement as well (Bailey 1995: 175).

Price (1991) also conducted qualitative research on FLA using an interview study with ten students at the University of Texas. The benefit she ascribes to working qualitatively is the opportunity “[...] to obtain descriptive information on variables not easily assessed [...] and the chance to “[...] provide a way to view phenomena from the point of view of the subject” (Price 1991: 102). Her objective was to get an insight into how anxious learners experience the language class, as well as to locate the sources of FLA and to clarify the role of the teacher. To obtain this information, she asked the participants the following questions, which were recorded and analyzed:

1. Can you tell me something about how you have felt during your language classes?
2. What bothered (bothers) you the most about foreign language classes?
3. Are there other things about foreign language classes that bother you?
4. Do you have any idea as to why you feel so anxious in your language classes?
5. Do you have any ideas as to how language classes might be made less stressful?
6. What role have your instructors played in how you have felt during foreign language classes? (Price 1991: 103).

2.9.3. Mixed methodologies to measure FLA as a situation-specific anxiety

One study using both quantitative and qualitative measures of FLA was conducted by Gregersen and Horwitz (2002). In an interview study with eight students of an English class at a university in Chile, they aimed at exploring the link between FLA and perfectionism. They expected the participants, who were all future EFL teachers, to be more perfectionist if they reported high levels of FLA on the FLCAS (Horwitz et al. 1986) and exhibit fewer perfectionist tendencies if they suffered less from FLA (Gregersen & Horwitz 2002: 564). The data gathered for the analysis was derived from two phases. First, the participants had to respond to five questions relating to themselves and how they spent their free time (Gregersen & Horwitz 2002: 565). The language elicited by those questions was video-recorded. In a second step, the subjects themselves then had to evaluate their performance in the video by watching it together with the experimenter. Their reactions were audio-taped, transcribed and given to three raters who interpreted them in terms of degrees of perfectionism. Gregersen and Horwitz were able to observe the expected link between FLA and perfectionism, with the more anxious students commenting much more critically on their performances, as expressed in the quotation below:

Specifically, anxious learners reported higher standards for their English performance, a greater tendency toward procrastination, greater worry over the opinions of others, and a higher levels of concern over their errors than the non-anxious learners .(Gregersen and Horwitz 2002: 568).

In a later study, Gregersen (2003) also used quantitative and qualitative instruments to investigate the difference in the number of errors made by anxious and non-anxious students. Results showed that highly-anxious students produced more errors and used more self-correction even though they were less able to identify their errors when evaluating their own performance later on (Gregersen 2003: 27).

Phillips (1992) took a similar approach, combining quantitative and qualitative research instruments. In her study, she focused mainly on the effect of FLA on performance in oral French tests (Phillips 1992: 14). To investigate the assumed link, the author did not only use the FLCAS (Horwitz et al. 1986) to measure the learners' anxiety levels, she also utilized the interview technique to obtain an "[...] insight into the students' attitudes toward the oral exam [...]" (Phillips 1992: 17). Like Gregersen and Horwitz (2002), she worked with self-reports of the subjects' ex-

perience during the oral exam which had been video-taped. In addition to the expected negative correlation between FLCAS scores and the students' results on the exam (Phillips 1992: 18), the interviews also suggested that the more anxious learners had negative feelings towards the exam, reporting "[...] going 'blank', feeling frustrated at not being able to say what they 'knew', being distracted, and feeling 'panicky'" (Phillips 1992: 19).

2.10. Implications for teaching

If teachers observe "[...] verbalized subjective distress, the execution of avoidance responses, impaired performance, or certain physiological signs" (Watson & Friend 1969: 448), they may conclude that learners who exhibit one or more of these reactions are experiencing anxiety in the language class. Apart from the very few scholars who ascribe a positive force to anxiety (see Section 2.3), most authors would advise taking action in order to diminish levels of FLA and to avoid its purported harmful consequences for the learning success. The subsequent strategies and techniques are those provided by the literature reviewed. Further considerations and suggestions resulting from the findings of the replication study are presented in Section 7 and serve as an addition to the ideas listed below.

It has already been mentioned that a good teacher-student relationship and a pleasant learning environment play a vital role for mastering a language (Onwuegbuzie 1999). Next, it is of high importance that students are aware of FLA and that it is normal to experience these feelings of apprehension and worry when confronted with a language in which one is not fully proficient. Learners need to understand this fact to set realistic goals and also to develop coping strategies (Foss & Reitzel 1988, Phillips 1992). It might help to overtly address the topic in class (Foss & Reitzel 1988), to point out that anxiety is common among their classmates and that it might just be a phase and not a lasting phenomenon (Onwuegbuzie 1999). Furthermore, learners need to understand that making errors is nothing to be ashamed of and that they are in fact important for initiating further learning. Therefore, Elkhafaifi recommends that "students should be explicitly reminded to guess and to take risks in class. It should be made clear to them that mistakes are not a sign of failure, but rather a normal aspect of the language learning process" (Elkhafaifi: 2005: 215).

Another crucial point is to familiarize learners with test formats and have practice tests, so that

they do not panic in examinations and consequently exhibit test anxiety (Young 1991, 1999, Arnold 1994, Onwuegbuzie 1999). Furthermore, student talking-time should be increased, and error-correction should be done in an unobtrusive and encouraging manner, which will foster the students' self-confidence and their willingness to use even complex language (Arnold 1994, Awan 2010, Onwuegbuzie 1999). Horwitz et al. (1986: 131) suggest that "[...] as students appear to be acutely sensitive to target language corrections, the selection of error correction techniques should be based on instructional philosophy and on reducing defensive reactions in students".

Pair and group work are suitable for practicing speaking without exposing learners to permanent monitoring, and this should in turn minimize students' fear of negative evaluation (Riasati 2011). In general, learners felt that smaller group sizes would help reduce anxiety (Price 1991: 107). As far as evaluation, feedback and grading of performance are concerned, language instructors should also keep in mind which approach they apply in their teaching. For instance, focusing on meaning rather than on form can also be a great relief for learners who feel that they cannot meet the course requirements otherwise (Phillips 1999: 140). In addition, fun activities such as games or role-playing could also be introduced from time to time (Onwuegbuzie 1999). Phillips (1999: 127) urges teachers to "[...] develop strategies for developing a sense of community among learners, activities that allow students a great deal of nonthreatening oral practice, and evaluation techniques designed to reduce learner anxiety".

Crookall and Oxford (1991: 144) propose making use of learner training in which learners are familiarized with different processes that may interfere with their learning. By being aware of various factors which affect the acquisition process, learners can develop suitable strategies to help them deal with interferences such as FLA. In other words, learner training shifts the focus from the content of a class and how the teacher should present it, to how the learners best acquire the content, by introducing certain strategies (Crookall & Oxford 1991: 145). Learner training suggests a wide range of activities to help learners openly discuss their anxiety and to become more relaxed about making mistakes in class (Crookall & Oxford 1991: 145-149).

Overall, it must be borne in mind that the above-listed techniques are no guarantee for an anxiety-free classroom, as FLA is a complex construct. Therefore, what is anxiety-provoking for one student may not have the slightest effect on another, so care should be taken not to take a gener-

alized approach to advice on how to reduce anxiety.

3. Empirical research – A replication study

The empirical part of this thesis investigates the influence of FLA on spoken language in the EFL context, and a replication study was used to examine this. The research question, whether different levels of FLA contribute to the extent of interpretive and denotative language output in the EFL setting, derives from the original study by Steinberg and Horwitz (1986) and is applied to the replication study. Based on the findings of the original study, it is hypothesized that speech is rather denotative if FLA levels are higher, and that lower levels of FLA produce more interpretive language output. The anxiety level in the study is induced, which means that it is artificially triggered by the experimental conditions.

First, a more detailed description of the original study is provided, followed by an explanation of why a replication approach was chosen for this thesis. Next, the research design of the replication study and the results are presented. The findings of the replication study are then compared to those of the original study, to see whether they are similar or not. Problems that arose while replicating the study and its limitations are also discussed. Finally, the implications of this study will be discussed and possible questions for future research listed.

3.1. The original study: “The effect of Induced Anxiety on the Denotative and Interpretive Content of Second Language Speech” by Steinberg and Horwitz

The original study, by Faith Steinberg and Elaine Horwitz, was published in the TESOL Quarterly in 1986 in an article entitled “The effect of Induced Anxiety on the Denotative and Interpretive Content of Second Language Speech”. Steinberg and Horwitz were interested in how induced anxiety – i.e., anxiety triggered by the experimental setting and not occurring naturally – would influence spoken language in English. To this end, they tested twenty students who were taking part in an ESL course at the University of Texas and whose native language was Spanish. Depending on which group the subjects were placed in, they either experienced a nonanxiety condition or an anxiety condition, the former consisting of calm, informal and supportive treatment and the latter describing a harsh, strict and formal setting. Another distinction between the conditions was that whereas the sessions of the nonanxiety group were only audio-recorded, the anxie-

ty group was video-recorded during the experiment, which was assumed to trigger even higher levels of FLA. Both groups were then exposed to the same instruments: three pictures from Murray's Thematic Apperception Test (TAT) (1971), and Zuckerman and Lubin's Multiple Affect Adjective Checklist (MAACL) (1960). For the three pictures, the subjects had to provide oral descriptions in English on three levels, referring to a) the elements in the picture, b) the actual events depicted in the picture, and c) what the subjects imagined was happening in the picture (Steinberg and Horwitz 1986: 132). Then, the candidates had to fill out the MAACL, which is a questionnaire investigating how they felt in the experiment. The MAACL was used as a manipulation check to find out whether the anxiety treatment was successful, i.e. whether it caused higher levels of FLA than the nonanxiety condition. More information about both instruments will be provided in Section 3.3.1. The picture descriptions were then rated by three ESL teachers and this confirmed the authors' hypothesis that the extent of denotative and interpretive language output was dependent on the experimental conditions. They found that the anxiety group had reported significantly higher levels of FLA on the MAACL compared to the nonanxiety group, and had produced a smaller amount of interpretive language; i.e. unlike the nonanxiety group, the anxiety group's descriptions did not go beyond describing the actual elements in the pictures, nor did they include much personal interpretation (Steinberg & Horwitz 1986: 134). To summarize, Steinberg's and Horwitz's study showed that higher levels of FLA produce smaller amounts of interpretive speech in an experimental EFL context. Conversely, lower levels of FLA were found to facilitate interpretations in the speaking activity.

3.2. The replication approach

The study conducted as part of this thesis is of a replication nature: i.e., an attempt is made to replicate the study described in Section 3.1 with the aim of testing whether the observations of the original study also apply to a different context. When "replicating a piece of research to determine whether the findings are generalizable within a different population or setting/context, or across treatment conditions" (<http://dissertation.laerd.com/route1-getting-started.php>)³, different factors have to be taken into account in order to decide on the appropriate form of replication. A description of the type of replication applied in this study and a justification for this choice are provided below.

³ This online source, which provides information on statistical analysis for students and professionals, was set up by Lund Research Ltd. There is little information available on the authors and their educational background. Although the content of the website seemed well-researched and trustworthy, I am aware that quoting this source in a scientific paper bears the risk of limited reliability.

The type of replication study which is used in the study conducted as part of this thesis is called “approximate replication” (Porte 2012: 9). Sometimes this approach is also labelled “generalization” (<http://dissertation.laerd.com/route1-getting-started-step1-p2.php>). The purpose of this type of replication is to explore whether the findings of the original study can be “[...]generalize[d] to other subjects or contexts” (Porte 2012: 9). Depending on which aspects are altered, the replication study can be across populations, treatments, settings, and time. For the study presented in the following sections, three of the four features mentioned above apply. Firstly, it is a replication study across populations, because the sample tested in the replication study is different from the one tested in the original study. Also, since the replication sample comprised high school students, whereas the population of the original study comprised university-level students, another variable which varied among the populations is age, since high school students are younger than university students. A second interest, to test for validity between different settings or contexts, makes the replication study a study across settings. In this particular case, there is a major change in setting, namely from the United States to Austria. Varying the country of the study also has linguistic implications in terms of L1s and the importance ascribed to certain languages. In the original study, the subjects’ mother tongue was Spanish and they were taking part in an ESL program at the university. The replication focuses on native speakers of German studying English as a foreign language. However, the geographical setting was not the only one that diverged between the studies: the educational setting also changed from university to school. Lastly, since the original study was conducted in 1986 and the replication study in 2015, they are also studies across time (<http://dissertation.laerd.com/route1-getting-started-step1-p2.php>).

The reasons for working with a replication approach and for changing the above-mentioned variables were based on personal as well as on academic considerations. In terms of the former, as a future teacher of EFL in Austria, it seemed only natural to conduct the research in Austria, and it made sense to test EFL learners whose first language is German and who attend school in Austria, as this will be the vast majority of people I will be teaching in my future job. Thus, by altering the age of the subjects and the location of the study, the insight gained from the results will be of greater relevance for me. From an academic point of view, placing this study in the Austrian EFL context adds a new dimension to research on FLA, especially in connection with how it influences speech, since, to my knowledge and based on the literature I have reviewed, no study addressing this topic for the

Austrian context has been published to date. Thus, the findings of the replication study may contribute important insights to the existing body of knowledge. Not only is the replication in the Austrian setting new, but since Steinberg's and Horwitz's study had never actually been replicated by any other researchers in other contexts, the replication study was conducted with the aim of discovering whether their observations were a unique phenomenon specific to the sample and context, i.e. whether a replication would yield different results, or whether they also hold true for other populations and settings, i.e. whether the replication would yield similar results.

3.3. Methodology

The empirical part of this thesis consists of a quantitative study with an experimental research design and is an attempt to replicate the previous study undertaken in the U.S (Steinberg & Horwitz 1986). As this research is based on that study, the research design is essentially the same except for some variables (see Section 3.2). The place variable has changed from the U.S. to Austria; the participants have changed from native speakers of Spanish and their levels of FLA when using English, to EFL learners whose mother tongue is German. Moreover, since the participants of the model study were college students, whereas the sample of this study consisted of high school students, this also altered the age variable. Both the original study and the replication used the TAT to elicit spoken language (see Appendices 1-3). A questionnaire was handed out after the experiment asking the participants to report on their feelings while completing the task. Whereas Steinberg and Horwitz used the MAACL (Zuckerman & Lubin 1960) to investigate how the students were feeling, the German version of Spielberger's State - Trait Inventory (STAI) (Laux 1981) (see Appendix 6) was distributed in the replication study for reasons of accessibility and relevance. Both the TAT and the STAI will be discussed in more detail below.

3.3.1. Instruments

As mentioned above, two instruments were used in this study to obtain the necessary data. First, parts of the TAT were given to the participants, to which they had to respond with spoken language. Secondly, the STAI was handed out as a manipulation check to test for levels of anxiety.

3.3.1.1. The Thematic Apperception Test (TAT)

The TAT is an instrument from the discipline of Psychology devised by the American psychologist Henry Murray in 1943. It is a projective test and aims at investigating “[...] the dominant drives, emotions, sentiments, complexes and conflicts of a personality” (Murray 1943:1). The TAT consists of 19 black and white pictures showing different social situations. The subjects have to invent a story around each picture, using the following guidelines: “Tell what has led up to the event shown in the picture, describe what is happening at moment, what the characters are feeling and thinking; and then give the outcome” (Murray 1943: 3). It is expected that, while completing the task above, participants will project their own feelings and thoughts onto the picture without even noticing. Thus, the TAT enables psychologists to obtain indirectly, information about the subjects’ personality which they would normally be reluctant to disclose if asked directly (Murray 1943: 1). The TAT is not an instrument that is completed within one day, but it is split into two parts. On the first day of the test, participants are requested to react to the first ten pictures, with the rest being shown to the subjects after at least one day has elapsed (Murray 1943: 5). After the candidates have described all the pictures, they undergo an interview in which they are asked to remember the origins of their interpretations. In the interview, the examiner aims at identifying whether the story behind each picture derived from the person’s own experience or from an outside source and is able to make judgments about the subject’s character in terms of predominant personality traits and whether he/she suffers from any mental illnesses (Murray 1943: 7). The analysis of the story focuses on two components: 1) the protagonist of each picture (what Murray (1943: 6) calls “the hero”), and 2) the context in which the story is embedded (or, as Murray (1943: 6) puts it, “forces emanating from the environment”). It is believed that the emotions and characteristics predominantly used to describe the hero and the background story are the exact same emotions and characteristics of the subject, which are unconsciously projected onto the picture. Feelings and motives ascribed to the hero are called *needs* and those concerning the environment are called *presses* (Murray 1943: 7). The TAT manual does not provide a set of needs and presses to be analyzed with each picture, but Murray himself tests for 28 needs, some of which are “abasement, achievement, aggression, dominance, intraggression, nurturance, passivity, sex, and succorance” (Murray 1943: 9-10), and more than 30 presses, including “affiliation, aggression, dominance, nurturance, rejection, lack/loss, physical

danger, physical injury” (Murray 1943: 11-12). The dominance of these and other emotions is rated on a scale from 1-5 and then measured against average scores for the respective feeling.

For the study conducted as part of this thesis, the TAT was not used for its purpose, i.e., to measure personality traits and/or mental illnesses. Therefore, the instructions and the interpretation differ vastly from its original form as a projective test. Moreover, candidates were shown a selection of only three pictures (2, 8BM and 5 – see Appendix A, Picture 1,2,3) which are those used in the original study. According to the authors of the original study (Steinberg & Horwitz 1986: 132), using the TAT in an applied linguistics context was legitimate, because the pictures’ “[...] ambiguity is well suited for the elicitation of interpretive as well as denotative material; in addition, their availability permits replication by other researchers”.

3.3.1.2. The State - Trait Anxiety Inventory (STAI)

The STAI is a self-report instrument for measuring anxiety and was first developed by Spielberger in 1970. The original STAI is in English, and it has been translated into 48 languages so far. The German version of the STAI, published by Laux in 1981, does not differ from the original as far as content is concerned and was the one used in the study at hand. It consists of two separate questionnaires of 20 items each to be answered on a four-point scale. While the first questionnaire concerns state anxiety, the second investigates trait anxiety. Two versions of the STAI, Form X and Form Y, are available, with Form X being used in the study at hand.

As already mentioned, the original study used a different questionnaire, the MAACL. The STAI was chosen over the MAACL primarily for reasons of relevance, but also due to accessibility and administration. The 132 items of the MAACL would have been too many and therefore beyond the scope of this study. Therefore, the shorter alternative in the form of the STAI was preferred. Moreover, the STAI differs only slightly from the MAACL: The inventory is described in comparison to the MAACL as follows:

Die Verwendung derselben Items zur Beurteilung aktueller Zustände und habitueller Merkmale entspricht dem Konstruktionsprinzip der “Multiple Affective Check”-Liste (Zuckerman & Lubin, 1965), mit der angestrebt wird, Angst, Depression und Feindseligkeit sowohl als Zustand als auch als Eigenschaft zu erfassen. [The use of the same items for evaluating current states and habitual traits is in line with the construct of the “Multiple Affective Check”-List (Zuckerman & Lubin, 1965), which aims to assess anxiety, depression and hostility, both as state and trait] (Laux 1981: 9).

Although it has been mentioned before that FLA does not actually constitute a state anxiety, but rather a situation-specific anxiety (see Section 2.2), the STAI was chosen to measure levels of FLA as it seemed most appropriate for this study. Other measurements, such as the FLCAS, for instance, would have gone beyond the scope of this study, as the study's focus is not primarily the different sources of FLA as assessed by the FLCAS: the purpose of using a questionnaire that assesses anxiety was merely to check whether the anxiety condition in the experiment was successful at all, i.e., whether the anxiety experienced actually derived from the induced anxiety caused by the distinct conditions between the two groups. To find out about this, it was only necessary to obtain information about the "here-and now experience of anxiety" (MacIntyre & Gardner 1991a: 87) which is exactly what the state scale of the STAI tests for. Whether the anxiety experienced during the experiment really constitutes a situation-specific anxiety which would always be triggered in a foreign language environment could not be examined in the study, as this would have required testing over a period of time to see if it would "[...] occur consistently over time within a given situation" (MacIntyre & Gardner 1991a: 87).

In the case of a successful anxiety condition, the anxiety group would be expected to indicate greater levels of anxiety on the STAI than the control group. In the manual, Laux (1981:7) defines state anxiety as "[...] einen emotionalen Zustand, der gekennzeichnet ist durch Anspannung, Besorgtheit, Nervosität, innere Unruhe und Furcht vor zukünftigen Ereignissen[...]" "[an emotional state characterized by strain, worry, nervousness, inner disquiet, and fear of future events], which is the feeling the anxiety condition aimed at producing.

The STAI, and the state form in particular, is based on the concept that high scores on the state form correlate negatively with a subject's performance (Laux 1981: 14). Since this research is based on the same hypothesis, it seemed an appropriate instrument to use in the study.

3.3.2. Participants

The replication study was conducted in an Austrian vocational school and its population were 12 pupils in Year 12, i.e., they had been learning English for 8 years (they started at the age of 10, as is common in the Austrian school system). All of the participants were native speakers of German. In order to divide the pupils into two groups, information about their ability in English was obtained from their English teacher. Depending on their most recent grade in English (report card), they were either put in the advanced students' group (grades 1-3 – roughly equivalent to grades between an A and C) or rather weaker learners (grades 4-5 – roughly equivalent to grades between D and F). This first round of sorting was made to avoid an ability bias which could have influenced the results of the study due to the learners' levels of English. The pupils of both groups were then randomly assigned to either the control group, i.e. the nonanxiety group, or the experimental group, i.e. the anxiety group, and consequently experienced the respective condition.

3.3.3. Procedure

Before the actual testing, a pilot test was arranged. This was mainly to see whether the instruments intended for use in the study would provide the desired data as well as to ensure that the instructions for the experiment were clear.

After a successful pilot test, the study was conducted with the real sample, i.e. with 12 EFL learners. The study was undertaken within a single day to keep the experimental conditions as consistent as possible. Once they were assigned to one of the two groups, the participants were taken to a separate room one after another. Depending on which group the participant belonged to, they either experienced the anxiety condition or the nonanxiety condition, as per the conditions in the original experiment. Of course, the participants were neither informed about which group they were in nor about the exact purpose of the study, as to avoid biased and manipulated results.

As in the study by Steinberg and Horwitz, members of the nonanxiety group encountered a friendly and supportive experimental environment. The experimenter created a casual and informal environment by asking the participant to sit on a comfortable couch and by chatting a bit

before the experiment actually started. The procedure was explained to the subject and it was emphasized that how well they performed was not important and that they should be comfortable while completing the tasks. Then three selected TAT pictures were presented to the candidate and the candidate was asked to describe each picture on three levels. These levels were taken from the original study and are as follows:

- a) the elements in the picture
- b) the actual events depicted
- c) what the subjects imagined to be happening in the picture. (Steinberg and Horwitz 1986: 132).

The descriptions were audio-recorded with the subjects' consent (or, in the case of pupils who were minors, with their parents' consent). After having described all three pictures on the above-listed levels, the participants were asked to fill out the state subscale of the STAI.

The procedure for the anxiety group was the same as far as the instruments and requirements were concerned. However, their treatment in the experiment differed to a great extent from the treatment of the subjects in the nonanxiety group. Unlike the subjects of the nonanxiety group, participants of the anxiety group were confronted with a strict and very serious experimenter who emphasized that a good performance on the descriptions of the pictures was vital to the success of the experiment. Moreover, the setting was more formal than in the nonanxiety group, with no small talk before the experiment started and seating subjects at a single desk with a video-camera in front of them. (Although, of course, like the other group, the anxiety group had consented to being video- and audio-taped while they gave their picture descriptions). Again, the experiment was completed by subjects filling in the questionnaire about how they had felt in the experiment.

The video- and audio-tapes were then transcribed and handed to three raters. Since all three raters are EFL teachers, it can be assumed that they had the required knowledge and expertise to make valid judgments about the picture descriptions. Having been instructed on how to rate the recordings, the raters assigned points for each subject and each picture. The rating scale that was used in the original study appears below.

Please rate each picture description according to the amount of denotative or interpretive material it contains.

4. Performance is heavily loaded with personal interpretation of picture, going beyond the elements actually present.
3. Performance contains a significant, but not striking, amount of interpretation. The amounts of denotative and interpretive material are approximately equal.
2. Most information is denotative, with a few interpretive elaborations.
1. Communication is almost entirely denotative; almost no interpretation is provided.

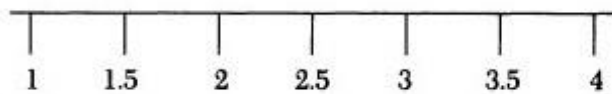


Figure 1: Rating scale for the TAT pictures

(Steinberg and Horwitz 1986: 133)

As the rating scale indicates, each rater could assign between one and four points per picture per subject, which makes a possible score ranging from three to twelve points per subject per rater. The results were filled in on a rating form and handed back to the experimenter, who then statistically analyzed the data, which will be discussed in the next section.

3.3.4. Data Analysis

To analyze the data, the statistics software Statistical Package for the Social Sciences (henceforth SPSS) was used. First, descriptive statistics were carried out to obtain information about the mean, the standard deviation and the minimum and maximum score per group. Then the Intra-class Correlation Coefficient was chosen to measure inter-rater reliability for the TAT total scores per subject. After that the Mann-Whitney U test was applied to the group means to check for any significant difference between the two groups. This particular test was chosen because the data gathered in this study do not account for parametric data, i.e. data which is normally distributed (Rasinger 2008: 193), thus making it impossible to use a *t* test of significance. The Mann-Whitney U test represents a non-parametric alternative to the *t* test (Rasinger 2008: 203). Lastly, the relationship between the scores obtained on the TAT and the anxiety levels reported on the STAI was examined. To do so, Kendall's Tau-b was computed. Just like the Mann-Whitney U test, Kendall's Tau-b is also applicable to non- parametric data (<https://statistics.laerd.com/spss->

tutorials/kendalls-tau-b-using-spss-statistics.php). The main reason why Kendall's Tau-b was preferred over other measures of correlation is that it is meant to be specifically appropriate for very small sets of data (Rasinger 2008: 200).

4. Results

The following chapter presents the results of the empirical study. Firstly, the results of the replication study are explained on their own in order to test whether the hypothesis can be confirmed for the Austrian setting. Secondly, the findings of the replication study are compared to those of the original to investigate possible similarities and differences.

4.1. Findings of the replication study

The first evaluation concerns the total scores for the anxiety group and the nonanxiety group, respectively. Table 1 shows the calculations for the group means, the standard deviations, and the minimum and maximum scores for each of the groups. The mean here has been calculated by taking the sum of the total scores of all three raters, thus, the possible range for the total scores was 9-36 (i.e., between 3 x 3 points per subject, per rater, to 3 x 12 points per subject, per rater).

Table 1: Total scores per subject per rater

	N	Possible range	Minimum	Maximum	Mean	Std. Deviation
Anxiety Condition	6	9-36	14,50	28,00	20,0000	6,14003
Nonanxiety Condition	6	9-36	12,50	35,50	23,6667	9,48508

As shown in Table 1, the nonanxiety group has a higher mean of the total score per subject per

rater, with a score of 23.6 compared to 20.0 for the anxiety condition. However, the table also indicates that the standard deviation for the nonanxiety condition is higher at 9.48, compared to the anxiety group, which shows a standard deviation of 6.14. Thus, the data for the nonanxiety group are more widely spread over the possible range, which makes the mean a less reliable and a less representative value for the whole group. The bar chart in Figure 2 has been produced for a better visual representation and an easier comparison of the group means.

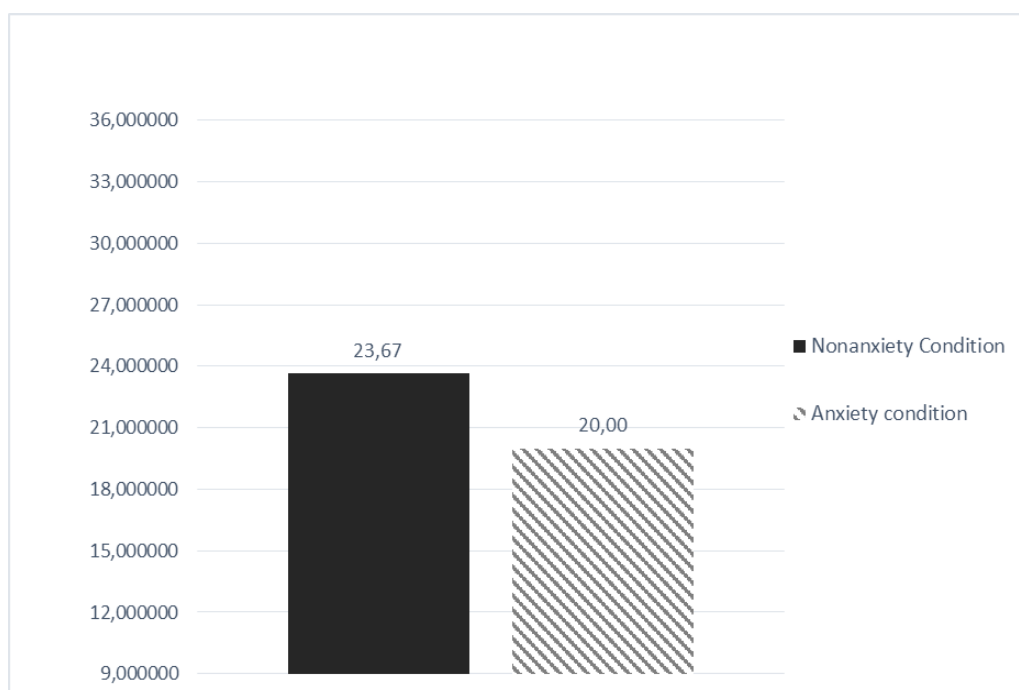


Figure 2: Means of total score per subject

As the final scores per subject per picture were computed by adding the individual scores of three different raters, inter-rater reliability had to be tested in order to check whether the rating scale was used in the same manner by all three raters and whether the results are therefore meaningful. For the inter-rater reliability, the Intraclass correlation coefficient (ICC) was calculated. Table 2 shows a reliability coefficient of $r = 0.93$ which depicts a very high agreement between raters.

Table 2: Interrater reliability for scores

	Intraclass Correlation ^b	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	,833	,626	,943	15,930	11	22	,000
Average Measures	,937	,834	,980	15,930	11	22	,000

In order to examine whether the difference between the TAT score group means of the anxiety and the nonanxiety condition is of statistical significance, the Mann-Whitney U test was conducted.

The reasons for choosing this correlation measure over another were explained in Section 3.1.4. As Table 3 shows, the test yielded a value of $r = .16$ with $p = 0.8$, which means that the difference between the group means is clearly not statistically significant ($p < 0.05$ for a significant value). This means that there is not sufficient evidence to claim that members of the nonanxiety condition group score higher on the TAT than members of the anxiety condition group. The hypothesis that members of the nonanxiety group would score higher than members of the anxiety group could not be confirmed by the data gathered through the study. Therefore, as a consequence of rejecting that hypothesis, the null hypothesis must be accepted, i.e. the anxiety group and the non-anxiety group score similarly high on the TAT.

Table 3: Mann-Whitney U test for testing a significant difference between group means of TAT scores

	VAR00002
Mann-Whitney U	16,000
Wilcoxon W	37,000
Z	-,320
Asymp. Sig. (2-tailed)	,749
Exact Sig. [2*(1-tailed Sig.)]	,818 ^b

b. Not corrected for ties.

Having looked at the data derived from the TAT, it is now time to investigate the data obtained from the STAI. Thus, the anxiety level as reported on the state scale of the questionnaire was calculated for each subject. The anxiety level score is calculated by adding the individual scores for each of the twenty items of the inventory. Subjects could score between 20 to 80 points on the questionnaire, a higher score indicating a higher level of anxiety and a lower score indicating a lower level of anxiety. The researchers Knight, Waal-Manning and Spears (1983) propose a benchmark of 40 for the presence of significant anxiety. Using their benchmark, it was found that 66.6 percent of the subjects in the anxiety group felt anxious, compared to 50 percent in the non-anxiety group. The mean of the anxiety level in the nonanxiety condition was 38.8, and 44.3 in the experimental condition. Table 4 below shows these numbers as well as the minimum and maximum scores and the standard deviations.

Table 4: Means of anxiety levels as reported on the STAI

	N	Minimum	Maximum	Mean	Std. Deviation
Nonanxiety condition	6	34,00	43,00	38,8333	3,18852
Anxiety condition	6	24,00	55,00	44,3333	11,96105

Interestingly, the table also shows that the lowest anxiety level was measured for a subject in the anxiety group. As with the TAT score means, the Mann-Whitney U test was carried out for the STAI score means to find out if they are significantly different. The results, reproduced in Table 5, are $r=11$ and $p=0.3$, which show that the mean STAI scores are not statistically significantly different between groups ($p < 0.05$ for a significant value).

Table 5: Mann- Whitney U test for STAI scores

Mann-Whitney U	11,000
Wilcoxon W	32,000
Z	-1,123
Asymp. Sig. (2-tailed)	,261
Exact Sig. [2*(1-tailed Sig.)]	,310 ^b

b. Not corrected for ties.

As a next step, Kendall's Tau-b was calculated to obtain the correlation between the scores obtained on the TAT and the anxiety levels reported on the STAI. Table 6 shows that Kendall's Tau-b was $r= 0.12$ with $p>0.1$, which is clearly not significant. Therefore, it has to be said that the experimental treatment was not successful. The null hypothesis that the control condition and the experimental condition produce equal amounts of FLA cannot be rejected.

Table 6: Correlation between score on TAT and anxiety level on STAI

			Score on TAT	Anxiety level on STAI
Kendall's tau_b	Score on TAT	Correlation Coefficient	1,000	,121
		Sig. (1-tailed)	.	,292
		N	12	12
	Anxiety level on STAI	Correlation Coefficient	,121	1,000
		Sig. (1-tailed)	,292	.
		N	12	12

4.2. Comparison between the findings of the original study and the replication study

The following section provides a comparison of the results from the original study and those of the replication study. The data published in the original study are compared and contrasted to the data obtained in the replication (see Section 4.1) to examine whether the findings of the former study are replicated.

As shown in Table 7, the original study yielded higher mean scores for both conditions: a mean score of 2.86 per picture, per subject, per rater, for the nonanxiety group in the original, compared to 2.63 in the replication study, and a mean score of 2.38 for the anxiety treatment, compared to 2.22 in the replication study.

Table 7: Mean score on TAT per picture per subject per rater

	Nonanxiety condition	Anxiety condition
Mean in original study	2,86	2,38
Mean in replication	2,62	2,22

Note: The calculated group means of the replicated study have been divided by 9 (3 scores x 3 raters) to convert to the scale units used in the original study

For ease of reference, the bar chart in Figure 3 contains a visual representation of the results for the mean scores per picture per subjects per rater, for both studies.

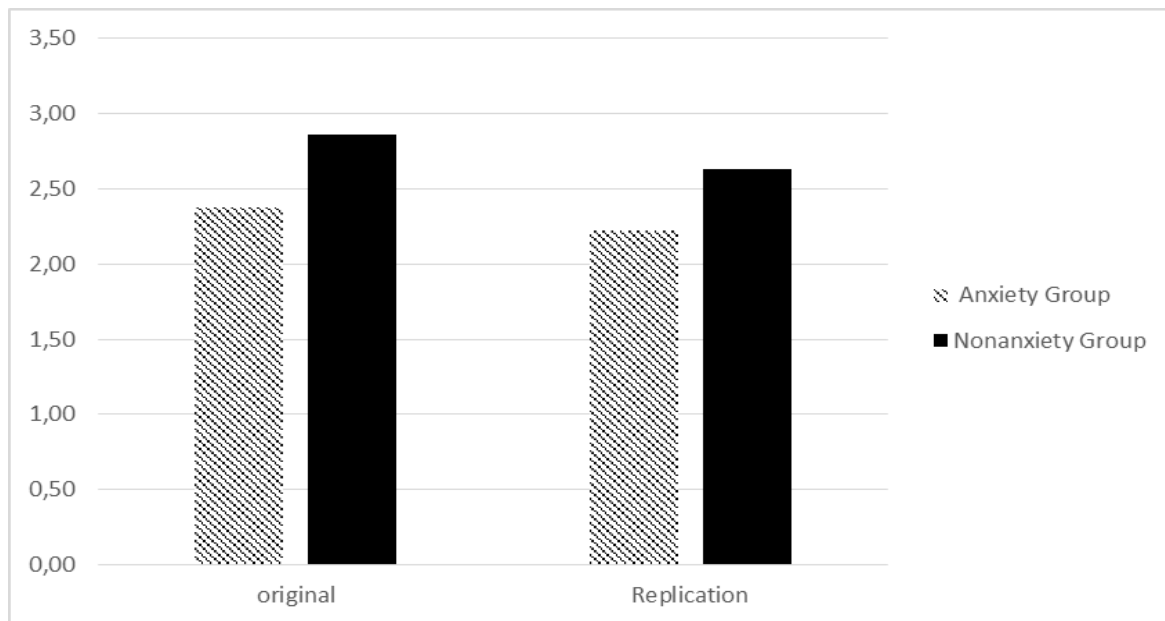


Figure 3: Mean score per picture per subject per rater in original and replication study

Furthermore, the number of subjects who felt anxious in the anxiety condition group and the nonanxiety group varied greatly between the original study and the replication. The percentages of individuals who reported being anxious during the treatments is shown in the bar chart in Figure 4.

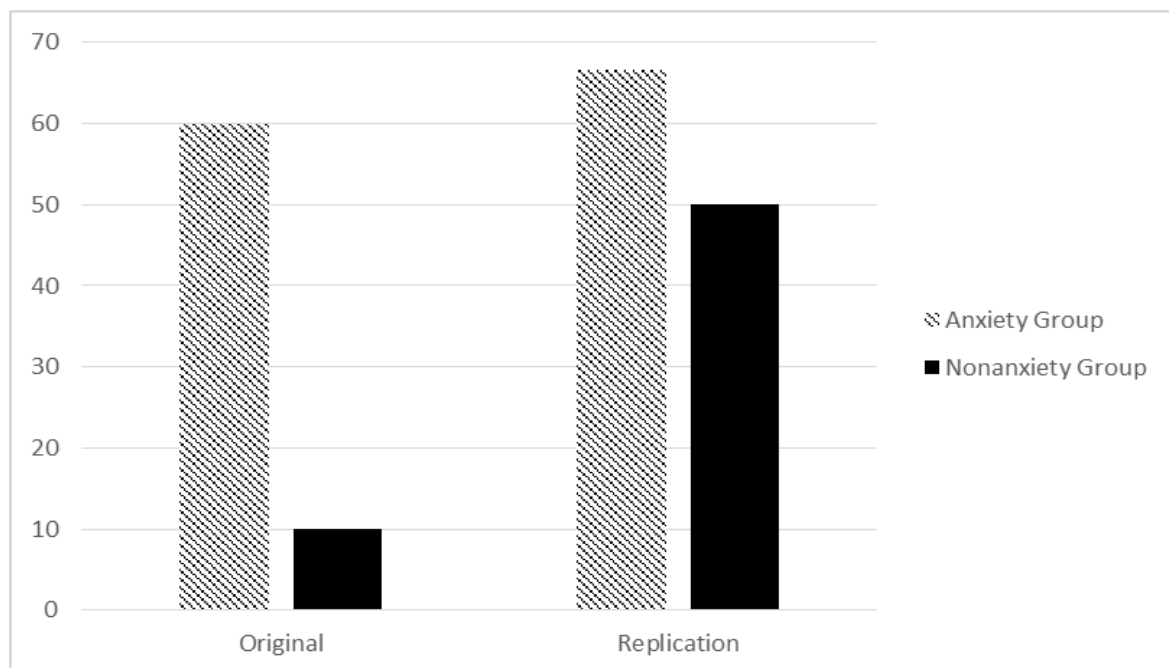


Figure 4: Percentages of people who reported feeling anxious on the questionnaire

Figure 4 shows that the anxiety treatment in the original study made 60 percent of the participants feel anxious, whereas 66.6 percent felt anxious in the replication. In turn, the nonanxiety condition triggered a feeling of anxiety for only 10 percent of the candidates in the original 1986 study and a much larger 50 percent for the candidates in the recent study. Possible reasons for the great difference in the results are discussed at length in Sections 5 and 6. For now, it can be noted that the difference in the anxiety levels in the original study and the replication were presumably not caused by the presence or the absence of FLA as such, but that the different results relate more to how, when, where and with whom the studies were conducted.

5. Problems in conducting the replication study: A reflection

The following sections are dedicated to exploring the problems that occurred during the replication study. Some of the problems could be predicted in advance and attempts were therefore made to tackle them in the best way possible, whereas others were rather unforeseen and thus, could not be eliminated.

5.1. Issues with replicating the original study

One of the issues experienced at many stages of the replication study was that the article containing the original study lacked information about specific procedures to do with the study. For instance, the original study mentions using a list of vocabulary provided for the subjects to facilitate their descriptions and to make the performance on the TAT more independent from vocabulary knowledge (Steinberg & Horwitz 1986: 132). When preparing the material for the replication, I learned that the content of these lists was never specified and that they were unavailable for third parties, which means that no similar vocabulary list was provided in the replication. Although I considered giving the learners some of the more difficult words, I decided not to do so in the end, because I did not want to push the subjects' interpretations into a certain direction by giving them some vocabulary, which for me is essential. In order not to influence the language output too much, I carried out the experiment without using such vocabulary aids.

Similarly, there were no specific instructions in the original study: for example, there is no mention of whether the instructions were given in English or in Spanish (the subjects' mother tongue). For the replication study, an English version was used, mainly because it was felt that

having the instructions in English would be fairer if pupils with L1s other than German participated in the study (which was not in fact the case). There was a similar issue with setting up the experimental conditions, as the description of the treatments in the original study is vague, leaving a lot of room for interpretation. What the researchers really meant by terms such as “cold” or “supportive presence” could only be guessed and it was my responsibility to decide on how to reproduce these conditions in the replication. And although the general atmosphere of the two treatments was made clear in the original study, there were still many unanswered questions which, it was felt, might or might not have a significant impact on the outcome of the study.

Furthermore, Steinberg and Horwitz (1986) provided no information about the years of foreign language training their subjects had already undergone. The text simply says the sample consists of “Spanish-speaking young adults enrolled in an intensive ESL course” and that they were all “at the low-intermediate level” (Steinberg & Horwitz 1986: 131). However, it does not mention how long they had been learning English as a foreign language and for what purpose. It is doubtful whether the students’ reported low-intermediate level reflected their actual level of proficiency. It does not specify whether students had to present certificates, or whether the subjects had to demonstrate their level of proficiency in some other way. Despite the stated level of proficiency ‘assigned’ to the learners in the original study, it is unclear whether the population in the study actually represented a homogenous group of learners with the same experience and language proficiency, which would be essential criteria in order to be comparable to a steady school class. Differences in the number of years of EFL study among students would mean that the TAT results would not be comparable. Since the paper does not provide any further information, although it is possible that the researchers recorded the years of instruction, even if they did, there is no mention or explanation given in the article, which makes it difficult for other linguists to replicate the study properly.

Thus, in general, the original article lacks certain methodological details which I consider to be important for conducting a successful replication. At the same time, this lack of information was a positive experience. In retrospect, the vagueness provided some space for individual interpretation and realization of the study which I enjoyed (not least because I had to adhere strictly to the original study for all the other parts of the study).

5.2. Limitations of the replication study

I am aware of the fact that my study has certain limitations which might have an impact on the validity of the results. Although every attempt was made to keep the limitations to a minimum, so as to make the study as valid and reliable as possible, it was impossible to eliminate every issue.

The main problem is that the study was restricted to one class in one school, which resulted in a very small data sample. To draw reliable and significant conclusions from empirical studies it is suggested to work with much larger samples than I did in this particular study. Therefore, it seems clear that the results of this random sample cannot be generalized for larger populations since the data might not be representative for other language learners. However, the same limitation applies to the original study, which also used a small sample of 20 subjects. Ideally, the replication would have also tested 20 participants to make the results comparable. Although extending the sample of the replication would have been possible, this could have led to limitations of other kinds. Taking EFL learners from other schools (or even just from other classes in the same school) to enlarge the sample would have made the subjects less comparable. Above all, it would have been more difficult to place the candidates into one of the proficiency batteries, as having pupils with different teachers would have meant inconsistencies in the evaluation of the learners. In other words, a grade might reflect different levels of proficiency depending on the class or school, because one teacher might grade more strictly than another, for example. Thus, it might be possible that learners who are supposed to be at the same level of proficiency according to their grades actually differ in their English skills which, in turn, would have resulted in distorted results for the TAT scores.

Apart from the proficiency bias, another aspect has to be taken into consideration, and that is coping strategies for anxiety. In an ideal world, we would suppose that the EFL teacher also familiarizes the pupils with certain strategies for dealing with FLA (see Section 2.10). However, the extent to which teachers teach their pupils coping strategies may vary hugely, which again, would have meant that learners with different teachers would have reacted to the anxiety condition differently. Working with learners who have the same teacher, it can be assumed that all learners are equally aware of and equally well- (or badly-) trained in the use of coping strategies for anxiety, which makes their performances more comparable.

Apart from the small sample size, keeping the experimental conditions exactly the same for the whole sample was a challenge. Maintaining the same level of formality for the anxiety group and informality for the nonanxiety group turned out to be a difficult task and therefore, the levels of each might not have been constant for the duration of the experiment.

Another aspect which might have influenced the performance of the subjects was that it was impossible to ensure that candidates who had already done the experiment did not talk to their colleagues about it. Since the experiment was done in the school building, there was no possibility of testing all subjects simultaneously. Therefore, it is possible that subjects who were tested at a later time could have prepared their picture descriptions in advance, which might also have had an impact on their anxiety levels as well as their performance. This issue, however, is not necessarily restricted to the replication study, but might also represent a limitation of the original study.

A word also needs to be said about the rating scale used in this study. Although it has been tested for inter-rater reliability, which was very high (see Section 4.1), the formulation of the scale gives the raters a large degree of flexibility. Looking at the scale, it has to be stated that it is full of vague expressions such as “heavily loaded” or “significant, but not striking, amount”. The problem here is that no precise definitions of the different degrees of denotative and interpretive language are given and that every rater probably has his/her own concepts of what a “significant amount” entails. As one of the raters myself, I have to admit that it was difficult to set a benchmark and then place the subjects on the scale according to that benchmark.

Using the STAI as a measure of anxiety levels might also raise concerns. Since it is a self-reflection questionnaire, the given answers might not reflect reality. Results could have been biased because the subjects evaluated their anxiety levels in an unrealistic way or it could be that they chose particular answers according to what they thought the desired and most appropriate response was (Oller 1981). At the same time, this problem is not restricted to the replication study, but to research based on questionnaires in general (see Section 2.9.2).

Other issues that might limit the reliability and validity of the study are connected to the unanswered questions concerning the original study, as discussed in Section 5.1. As explained earlier,

the missing information on particular procedural steps of the study – such as the vocabulary list and the form of instructions – made the replication more difficult than expected and the comparison between original and replication study might be less meaningful.

6. Interpretation of results

What follows is an attempt to interpret the findings of the replication study, first in isolation, and then in comparison and contrast to the original study. Taking into account the issues that arose in replicating the study, possible reasons for the inconsistent findings between the original and the replication study are provided.

6.1. Replication study

As mentioned in Section 4, the replication study showed that subjects in the anxiety group did not have statistically significant lower TAT scores than candidates in the nonanxiety group. If one were so bold as to generalize from this small-scale study, it could be concluded that higher levels of FLA do not lead to less interpretive/less personal statements and vice versa, that the absence of FLA or having lower levels of FLA facilitates interpretation. Since the anxiety treatment did not have any statistically significant impact on the subjects' performance, it can be stated that FLA did not function as a debilitating force in the replication study. However, neither did FLA improve the participants' performance. Thus, the study cannot argue for the facilitating character of FLA either. It could be argued that FLA does not constitute an issue in the observed Austrian EFL classroom. Referring back to the different opinions on the effect of FLA, these findings correspond mostly with Scovel's (2001) view that FLA can best be defined as a neutral phenomenon, i.e., without any negative or positive impact on learners' achievement. The STAI scores of both groups would indicate that the treatment and the environment which candidates experienced in the study did not make a difference to their anxiety levels. Since subjects in the anxiety group did not report statistically significant higher anxiety levels than their nonanxiety group peers, this means that neither the formal setting, nor the experimenter's harsh behavior or the form of instruction represent anxiety-provoking factors. Being video-recorded did not cause more anxiety than being just audio-recorded and the attempt to put more pressure on the anxiety group subjects by telling them that it would be vital for them to perform well on the picture descriptions did not increase anxiety either. However, the statistically insignificant results in terms

of the correlation between FLA and interpretive language output obtained in the replication study, do not mean that the findings are irrelevant or less meaningful. Since the original study and the replication were carried out across different settings, times and populations, differences in outcomes were to be expected.

6.2. Differences between the findings of the original study and the replication study

This section attempts to establish a meaningful explanation for the significant differences between the findings obtained in the original study and the replication study.

To begin with, there is the question of why the anxiety experienced by the nonanxiety group in the replication varied so much from that experienced in the original study: 10 percent for the American students and 50 percent for the Austrian pupils. One reason might be that, despite pupils being assured that the quality of their performance was not important for the success of the study, the experiment was still undertaken at school, i.e. a building and institution which they associate with a requirement to do their best. Maybe even the informal and supportive setting could not compensate for the belief that they had to perform well. Also, the subjects in Steinberg's and Horwitz's experiment volunteered to take part in the study, i.e. it is likely that they had a stronger motivation, which, as discussed in the theoretical part of this thesis, in itself reduces anxiety (see Section 2.5). The intrinsic motivation to participate on a voluntary basis might have helped to keep anxiety at a very low level for the nonanxiety group. The number of anxious people in the anxiety group was also higher in the replication study, 66.6 percent compared to 60 percent of all subjects in the original. Although more subjects in the replication study felt anxious in the anxiety group than in the original study, the variation was statistically insignificant. The remarkable difference really is the difference between the percentage of anxious people in the anxiety group and the nonanxiety group in the replication study. Only 16 percent more felt anxious in the anxiety group. In the original study, the difference was much greater, because there the anxiety condition produced 50 percent more significant anxiety levels.

Although the slightly higher anxiety levels in the anxiety group in the replication study might again be explained by the previous argument, that pupils still associated the experiment with measuring their proficiency in English due to its school-bound setting, it is interesting that the difference between the treatments is proportionally very small. It might be that being exposed to

a videocamera and being video-recorded is not particularly stressful nowadays. The different status and importance ascribed to technical devices such as cameras in the classroom might account for the great difference between the audio- and the video-recordings in the original study and the small variation it caused in the replication. Whereas teaching nowadays regularly makes use of technology such as cameras for various teaching purposes (whether video projects or for giving evaluative feedback), students in the past were probably not used to being filmed and might have experienced this as obtrusive monitoring. Although going into more detail about the impact of technology use in the classroom is beyond the scope of this thesis, the inclusion of cameras in the teaching context and how it might have changed over the past decades should be taken into account when trying to understand the comparably small difference in anxiety levels when being exposed to a videocamera and being audio-recorded only.

Another interesting aspect of the STAI scores is that the highest STAI score was achieved by a member of the *nonanxiety* group, at 53 points. Whether this subject really experienced the non-anxiety treatment itself as anxiety-inducing or whether he/she might also have been affected by general or trait anxiety making him/her prone to be more strongly affected by FLA as well remains unclear. Since no data on general anxiety among the subjects were gathered, the reason for this high measure of anxiety in the nonanxiety group is impossible to identify. Since the manipulation check for the conditions showed that they were not successful in creating statistically different levels of FLA, it is unlikely that the large amount of anxiety derived solely from FLA. Further research might be able to clarify the unanswered questions, which will be discussed in Section 8.

Having attempted to interpret the variance in the anxiety results between the original and the replication study, a closer investigation of the TAT scores and how they are different in the two studies is indispensable. A first aspect that could explain the higher TAT scores for both groups in the original study might be the list of words provided for the students. As discussed and explained in Section 5.1., the replication study did not provide a vocabulary list. As a result, subjects might not have known certain words which they would have needed for a closer elaboration in English. In other words, it is possible that pupils simply lacked important words in the target language, which inhibited further interpretation. However, not only the lack of certain vocabulary, but also differences in proficiency levels of the samples in the original and the replication might have been responsible for the results. The American study tested students at university

level whereas this study examined school-age pupils. Apart from the missing information about years of foreign language acquisition for the Spanish-speaking students, it can be assumed that they had a generally higher level of proficiency in English compared to the pupils tested in the replication study. If it is true that the university students had a higher level of English proficiency, this might have enhanced the depth of their picture analysis.

The argument that volunteering for the study might have caused better results has already been discussed for the anxiety levels. This factor might also be true for the TAT scores because voluntary participation usually implies that the participants also have a personal interest in the study and that they want to perform well. The Spanish-speaking students had consciously decided to study this particular language at university, therefore, it is likely that they also wanted to impress the examiner by demonstrating their knowledge of English. With the pupils, the situation was quite different. English is a core subject in the Austrian curriculum which they cannot drop even if they do not have particular interest in or talent for this language. Although they had to give their consent to being tested, the study and its outcome presumably were not of personal relevance to them. Maybe this meant that they fulfilled the tasks with indifference, which in turn led to lower TAT scores.

Another essential aspect in the discussion of the different results is the status ascribed to English. The role and the purpose of English in the United States of America is quite different to how English is perceived of and used in Austria. In the U.S. English plays an existential role: residence permit and working permit are dependent on being able to understand and speak English at a certain level of proficiency. Thus, English is of great significance for citizens of the U.S, who will therefore aim at acquiring the language as much as possible. In Austria the situation is different. Although English is perceived of as an important language, especially for global business, it does not serve an existential purpose for the majority of Austrians. Knowing good English is definitely an asset, but not a necessity on which your life may depend.

Overall, it can be stated that the original study and the replication study yielded different results for the amount of interpretive language use in relation to the experienced anxiety levels. This can be most likely attributed to the fact that the replication study was conducted across time, context and population variables. Changing these circumstances resulted in contradictory findings between the original study and the replication, which means that Steinberg's and Horwitz's hypoth-

esis does not apply to the Austrian EFL context, and the null hypothesis has to be accepted – that Austrian EFL learners are equally anxious in a situation of induced anxiety and an anxiety-free situation and that both situations produce the same number of interpretive and denotative elements.

The above-mentioned arguments are only attempts to interpret the inconsistencies in the findings of the original study and the replication. It is impossible to identify what exactly caused these differences and further research would be necessary to clarify this question.

7. Implications for pedagogy

After having interpreted the findings of the replication study, this section discusses the implications for the classroom. Translating the results from the study into the teaching context is relevant not only for this thesis; it also holds a deep personal interest for me as a future EFL teacher. Effective teaching is about more than just providing learners with the necessary knowledge; it requires much more of the language teacher. Knowing which phenomena and processes might interfere with or facilitate acquisition of the foreign language, and being able to react accordingly are further criteria for being a good teacher. This chapter sets out to develop an understanding of the role of FLA and its impact on performance in the language lesson by translating the research results into my teaching context. Two aspects that are of major relevance are 1) the learning environment and 2) the role of the teacher.

The replication study showed that neither of the two conditions had a significant impact on the learners' anxiety level or performance: the amount of interpretation was independent of the condition the subjects experienced. Assuming that this tendency, observed in an experimentally-manipulated setting with induced anxiety, also holds for a natural teaching setting, i.e., in an actual foreign language lesson, means that neither the learning environment nor the role of the teacher have an impact on FLA or, in turn, on performance in the target language. Arguing that these factors do not influence FLA at all is a daring statement, considering the literature on the sources of FLA (see Section 2. 9.). Contrary to the observations of this study, previous research has listed classroom atmosphere, form of instruction and teacher support as some of the main factors influencing the presence or absence of FLA. In particular, high levels of surveillance and

the requirement to perform well are thought to be anxiety-provoking for learners (Onwuegbuzie 1999). Although the introduction of the video camera and the remark that the subjects' performance was important for the experiment's success were intended to create these two aspects, they did not trigger higher levels of FLA. Whether levels of formality or strictness when giving instructions were high, or whether the behavior towards the subjects was friendly and supportive (including the arrangement of the setting) did not influence levels of anxiety. While FLA does not seem to be a problem in terms of harming the performance of Austrian EFL learners, neither does it produce more advanced output in the target language. What conclusions can be drawn from this apparent indifference to FLA? How should teachers deal with this topic or is it irrelevant to successful teaching and learning after all?

As we have seen above, the findings indicate that FLA is neither facilitating nor debilitating for learners' performance (keeping in mind that performance in this case refers only to the extent of interpretation and does not include grammar or vocabulary knowledge). Since it does not seem to be negative in nature, it is not necessary to avoid FLA at all costs. At the same time, since its facilitating character could not be proven, teachers should not create anxiety-triggering situations either. Thus, teachers should try to maintain balanced levels of FLA, which was actually the case in the replication since no statistically significant levels of FLA were observed. Even if the results of the replication seem to suggest that there is no need for active intervention, raising the learners' awareness of FLA and also providing them with coping strategies is nonetheless important. Although the form of instruction, learning environment and teaching style might not have an impact on FLA (and this has only been proven true for a very small sample), numerous other sources and situations may provoke FLA. In such an instance, teachers need to be able to recognize FLA, to identify its origin(s) and to provide effective help in the form of coping strategies. The implications of FLA for teaching are best summed up in Horwitz's (1986: 125) words: "The symptoms and consequences of foreign language anxiety should thus become readily identifiable to those concerned with language learning and teaching". Only if language instructors acknowledge the importance of factors other than cognitive capacity, might they be able to understand why sometimes the best students in practice sessions score lowest on tests, or why learners who are brilliant writers cannot produce a single word when they are asked to speak in front of the class, and only if teachers comprehend this link can they support learners with such difficulties. We as language instructors need to address issues such as FLA in order to reassure pupils that experiencing those feelings is normal and nothing to be ashamed of. If we

remain silent about these topics, we perpetuate the misconceptions that mistakes are unacceptable or that one has to understand every single word to be a successful language learner. In so doing, learners who are already anxious will withdraw more and more from the language lesson, as their suppressed worries will lead to increasing FLA. Instead, teachers should speak openly with their pupils about anxiety, and even try to motivate the most insecure and shy students in the class to participate. If learners are aware that learning can only occur if we make mistakes and take risks, they will be less anxious about foreign language learning – or in fact, about learning any subject at all.

8. Conclusion and outlook

The purpose of this thesis was to examine the relation between FLA and the use of interpretive and denotative elements in the EFL classroom. The motivation for delving into this topic was based on two sources. First, the phenomenon of FLA concerns both my subjects, namely English and Psychology, and the thought of combining those two disciplines in my thesis was fascinating and challenging at the same time. Secondly, FLA is still a relatively new construct and research on it has been rather scarce and has yielded somewhat contradictory findings. The European context, in particular, has remained largely unexplored with regard to FLA and how it might influence language learners. Both my personal interest and the research gap in this area inspired this thesis, which aimed at getting one step closer to filling this niche of exploring FLA in Austria.

The first part provided the theoretical underpinning, which was necessary to develop an understanding of the concept of FLA. The concept of FLA as a psychological construct leading to negative feelings such as worry, nervousness, doubts and fear was explained and the distinction between communication apprehension, test anxiety, and fear of negative evaluations (the three individual elements triggering FLA) were introduced. Furthermore, state anxiety, trait anxiety and situation-specific anxiety were presented as the three labels used to categorize FLA and it was argued that labeling FLA a situation-specific anxiety seemed the most logical from what previous research on the characteristics of FLA had shown. Next, the role of FLA was examined to determine whether it had a facilitating or debilitating effect on language learning. Levels of achievement and motivation in language courses were taken as indicators of either the harmful or supportive effects of FLA. The literature review indicated that FLA mostly interferes with successful language learning, with the speaking skill being most affected by FLA (although reading,

listening and writing tasks also trigger FLA and those skills also deteriorate in its presence). The observed link between FLA and language achievement led to the question of causality: i.e., whether FLA produces low output in the foreign language or whether weak foreign language skills actually trigger FLA. Inconsistent research findings have left this question unanswered. The different sources and reasons for FLA have been studied more successfully, and research has offered various explanations for FLA, ranging from problems in the native language, to incorrect understanding of study goals, perfectionism, or problems with classroom procedures, teaching activities or classroom environment. Learners suffering from FLA due to any of those reasons will develop a certain behavior which is typical of anxious learners. This can take different forms, but most of the time symptoms include avoidance behavior (such as skipping classes or not participating in the lessons), physical reactions (such as trembling, the inability to keep still during activities and inexplicable aches and pains, or learners being overly concerned and worried about not meeting the standards of the language course. What followed was a collection of the most important instruments for measuring FLA, including an exploration of the quantitative, qualitative and mixed-methodology approaches and their strengths and weaknesses. The instrument introduced in this section was the Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz et al. (1986), which is still the most widely-used FLA measurement instrument. The last section of the theoretical framework dealt with the implications of FLA for teaching. No clear solution could be found regarding the distinct perceptions on the role of FLA and the divergent findings about its impact on language learning. Whereas some studies emphasize that FLA needs to be eliminated at any cost, others proved that low levels of FLA might actually be able to motivate and encourage learners to make even more effort to master the foreign language. At the same time, it was recommended that teachers and language instructors definitely address FLA overtly, to make learners aware that what they experience is normal. Furthermore, equipping learners with certain coping strategies is essential to help them cope with any negative feelings towards the foreign language and to enable them to maintain contact with the language.

The second main part of this thesis contained the author's own empirical study aimed at investigating levels of FLA in the Austrian EFL context. The study was a replication of a previous study by Steinberg and Horwitz (1986), who examined the link between levels of FLA in a spoken production task and the amount of interpretive language in English as a foreign language. Based on the findings of this study, it was assumed that higher levels of FLA would produce less interpretive statements and that lower levels of FLA would boost interpretation. The original study

inspired and informed the replication study undertaken in this thesis, because it was groundbreaking in terms of FLA research, as it did not aim at investigating how FLA impacts achievement, as reflected in course grades and test scores, but rather, it was the first to narrow the research interest down to one particular aspect of spoken language production, namely interpretive storytelling. The researchers' findings confirmed their hypothesis, namely, that there was a negative correlation between FLA and interpretive language parts and therefore, added another argument in support of the debilitating nature of FLA.

However, the replication could not find results comparable to Steinberg's and Horwitz's findings. No significant difference in the learners' speech was found between anxious and non-anxious subjects. Students who were expected to feel anxious or not anxious, depending on the experimental conditions, produced language which was very similar with regard to the levels of interpretation it contained. It was argued that the results implied that FLA was not a dominant feeling for the majority of subjects in this study and even the few learners who experienced FLA were not impacted in their oral skills as far as interpretation was concerned. Nonetheless, interestingly, participants of both groups scored higher in the original study. The contradictory findings between the original study and the replication were attributed to various reasons, the most likely being that the subjects in the original study experienced an intrinsic motivation to perform well by taking part in the study voluntarily. It was also emphasized that, since the replication study's population only consisted of 12 students, the results need to be treated with caution and might not be representative of other samples. Future research might be able to investigate the same research question with an expanded sample to make results more significant. Other limitations of the study resulted from the difficulty to replicate the original study as several pieces of information on the procedure were missing. Therefore, conducting and evaluating the study in the same manner as the original study was a challenge and minor changes for the methodology used in the replication study were necessary.

Although FLA was not a serious issue with most learners in the present study, doing research on this topic was still interesting and beneficial for my own understanding of this complex phenomenon. Even if the participants in my study were not affected by FLA, the literature reviewed suggested that many other learners experienced it as an essential individual factor in foreign language learning. Consequently, I am of the opinion that teachers as well as learners do need to be familiarized with what FLA is and how it manifests itself in the classroom, so that they can react

to it by developing and applying particular coping strategies should it occur. Language instructors should be aware of their teaching methods, classroom procedures and how they treat learners. Finally, instead of creating feelings of anxiety and panic through their teaching, the aim of teachers should be to awaken their learners' interest in their subject and to instill in them a love of learning.

Since the results discussed in this thesis are those of a data set which was derived from an experimental research design, a next important step for research in this field might be to investigate FLA in a natural setting, i.e. the language lesson. While experimental designs can recreate such situations to a certain extent, they can never capture the reality of the classroom, and the dynamics between teacher and students (and students and students) are completely neglected, even though this has been found to be one of the most important sources of FLA. Observations made in an actual classroom situation would add another dimension to the whole discussion of FLA, as only then would the three factors of FLA – communication apprehension, fear of negative communication, and test anxiety – all come into play.

9. References

- Aida, Yukie. 1994. "Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese". *The Modern Language Journal* 78, 155-168.
- Alrabai, Fakieh. 2011. "Do Motivational Strategies Work? An Empirical Investigation of the Effectiveness of Motivational Strategies in Foreign Language Classes". LAP Lambert Academic Publishing.
- Arnold, Jane. 1999. *Affect in language learning*. Cambridge: Cambridge University Press.
- Awan, Riffat-un-Nisa; Azher, Musarrat; Anwar, Muhammad Nadeem; Naz, Anjum. 2010. "An Investigation of Foreign Language Classroom Anxiety and Its Relationship with Students' Achievement". *Journal of College Teaching & Learning* 7(11), 33-40.
- Bailey, Kathleen M. 1995. "Competitiveness and Anxiety in Adult Second Language Learning: Looking at and through the Diary Studies". In Brown, Douglas H.; Gonzo, Susan T. (eds). *Readings on Second Language Acquisition*. Englewood Cliffs, NJ: Prentice Hall Regents, 163-205.
- Brantmeier, Cindy. 2005. "Anxiety about L2 Reading or L2 Reading Tasks? A Study with advanced Language Learners". *The Reading Matrix* 5 (2), 67-85.
- Brown, Douglas H.; Gonzo, Susan T. (eds). 1995. *Readings on Second Language Acquisition*. Englewood Cliffs, NJ: Prentice Hall Regents.
- Brown, Douglas H. 1993. *Principles of Language Learning and Teaching*. (3rd edition). Englewood Cliffs, NJ: Prentice Hall Regents.
- Chastain, Kenneth. 1975. "Affective and ability factors in second language acquisition." *Language Learning* 25, 153-161.
- Cheng, Yuh-show. 2002. "Factors Associated with Foreign Language Writing Anxiety". *Foreign Language Annals* 35 (5), 647-656.
- Chen, Tsai-Yu; Chang, Goretti B.Y. 2004. "The Relationship between Foreign Language Anxiety and Learning Difficulties". *Foreign Language Annals* 37 (2), 279-289.
- Crookall, David; Oxford, Rebecca. 1991. "Dealing with Anxiety: Some Practical Activities for Language Learners and Teacher Trainees". In Horwitz, Elaine; Young, Dolly J. (eds.). *Language Anxiety. From Theory and Research to Classroom Implications*. Upper Saddle River: Prentice Hall, 141-150.

- Daly, John A. 1979. "Writing apprehension in the classroom: Teacher role expectations of the apprehensive writer". *Research in the Teaching of English* 13, 37-44.
- Daly; John A.; Miller, Michael D. 1975. "The empirical development of an instrument to measure writing apprehension". *Research in the Teaching of English* 9, 242-249.
- Dörnyei, Zoltán. 2005. *The psychology of the language learner : individual differences in second language acquisition*. New York, NY: Routledge.
- Dörnyei, Zoltán. 2007. *Research methods in applied linguistics: quantitative, qualitative, and mixed methodologies*. Oxford: Oxford University Press.
- Elkhafaifi, Hussein. 2005. "Listening Comprehension and Anxiety in the Arabic Language Classroom". *The Modern Language Journal* 89 (2), 206-220.
- Ehrman, Madeleine E.; Oxford, Rebecca L.. 1995. "Cognition Plus: Correlates Of Language Learning Success". *The Modern Language Journal* 79, 67-89.
- Ellis, Rod. 1994. *The study of second language acquisition*. Oxford: Oxford University Press.
- Endler, Norman S. 1980. "Person-situation interaction and anxiety". In Kutash Irwin L. (Ed.) *Handbook on stress and anxiety!* San Francisco: Jossey-Bass, 241-266.
- Eysenck, Michael W. 1979. "Anxiety, learning and memory. A reconceptualization". *Journal of Research in Personality* 13, 363-385.
- Fields, Cheryl M. 1978. "How Berlitz taught me Spanish rapidamente". *The Chronicle of Higher Education*, 4-6.
- Foss, Karen A.; Reitzel, Armeda C. 1988. "A Relational Model for Managing Second Language Anxiety". *TESOL Quarterly* 22 (3), 437-454.
- Ganschow, Leonore; Sparks, Richard L.; Anderson, Reed; Jovorsky, James; Skinner, Sue; Patton, Jon. 1994. "Differences in Language Performance among High-, Average-, and Low-Anxious College Foreign Language Learners". *The Modern Language Journal* 87 (1), 42-55.
- Gardner, Robert C.; Gliksman, Louis; Smythe, Padric C. 1978. "Attitudes and behaviour in second language acquisition: A social psychological interpretation.". *Canadian Psychological Review/Psychologie canadienne* 19(3), 173-186.
- Gardner, Robert C.; Clément, Richard; Smythe, Padric C.; Smythe Cynthia L. 1979.

- “Attitudes and motivation test battery: revised manual”. *Research Bulletin No. 10*. London/Ontario: University of Western Ontario.
- Gardner, Robert C. 1985. “The Attitude/Motivation Test Battery: Technical Report”. <http://publish.uwo.ca/~gardner/docs/AMTBmanual.pdf> (11 Feb. 2016).
- Gardner, Robert C.; Lalonde, Richard N.; Moorcroft, Regine; Evers, Frederick T. 1987. “Second language attrition: The role of motivation and use”. *Journal of Language and Social Psychology* 6, 29-47
- Gardner, Robert C.; MacIntyre, Peter D. 1993. “On the Measurement of Affective Variables in Second Language Learning”. *Language Learning* 43, 157-184.
- Gardner, Robert C.; Tremblay, Paul F.; Masgoret, Anne-Marie M.. 1997. “Towards a full mode of second language learning: an empirical investigation”. *The Modern Language Journal* 81 (3), 344-362.
- Gardner, Robert C. 2010. *Motivation and Second Language Acquisition. The Socio-Educational Model*. New York: Lang.
- Gass, Susan; Behney, Jenniger; Plonsky, Luke. 2013. *Second language acquisition: an introductory course*. (4th edition). New York: Routledge.
- Gordon, Edward M.; Sarason, Seymour B. 1955. “The Relationship between ‘Test-Anxiety’ and ‘Other Anxieties’”. *Journal of Personality* 23, 317-323.
- Gregersen, Tammy; Horwitz, Elaine K. 2002. „Language Learning and Perfectionism: Anxious and Non-Anxious Language Learners’ Reactions to Their Own Oral Performance”. *The Modern Language Journal* 86, 562-570.
- Gregersen, Tammy. 2003. “To Err Is Human: A Reminder to Teachers of Language-Anxious Students”. *Foreign Language Annals* 26 (1), 25-32.
- Hewitt, Elaine; Stephenson, Jean. 2012. “Foreign Language Anxiety and Oral Exam Performance: A Replication of Phillip’s MLJ Study”. *The Modern Language Journal* 96 (2), 170-189.
- Horwitz, Elaine K.; Horwitz Michael B.; Cope, JoAnn. 1985. “Scale of Reactions to Foreign Language Class:’ Unpublished instrument, University of Texas at Austin.
- Horwitz, Elaine K., Horwitz Michael B., Cope, JoAnn. 1986. “Foreign language classroom anxiety”. *Modern Language Journal* 70(2), 125-132.
- Horwitz, Elaine K.; Young, Dolly J. (eds.). 1991. *Language anxiety: From theory and research to classroom implications*. Englewood Cliffs, NJ: Prentice Hall.
- Horwitz, Elaine K. 2001. “Language anxiety and achievement”. *Annual Review of Applied*

Linguistics 21, 112- 127.

Kim, Joo-hae. 2000. "Foreign Language Listening Anxiety: A Study of Korean Students Learning English". Unpublished doctoral dissertation, University of Texas, Austin.

Kleinmann, Howard H. 1977. "Avoidance behavior in adult second language acquisition." *Language Learning* 27, 93-107.

Knight, R.; Waal-Manning Hendrika; Spears G. 1983. "Some norms and reliability data for the State-Trait Anxiety Inventory and the Zung Self-Rating Depression scale". *British Journal of Clinical Psychology* 4, 245-249.

Kutash Irving L.; Schlesinger Louis B. 1980. *Handbook on stress and anxiety*. San Francisco: Jossey-Bass.

Krashen, Stephen. 1981. *Second language acquisition and second language learning*. Oxford: Pergamon Press.

Laerd statistics. 2013. "Route #1.Replication-based dissertations".
<http://dissertation.laerd.com/route1-getting-started.php> (7 Jan. 2016).

Laerd statistics. 2013. "Route B. Generalisation". <http://dissertation.laerd.com/route1-getting-started-step1-p2.php> (7 Jan. 2016).

Laerd statistics. 2013. "Kendall's Tau-b using SPSS Statistics".
<https://statistics.laerd.com/spss-tutorials/kendalls-tau-b-using-spss-statistics.php> (7 Jan. 2016).

Laux, Lothar. 1981. *Das State-Trait-Angstinventar: STAI*. Göttingen: Beltz.

Lee, James F. 1991. "Clashes in L2 Reading: Research Versus Practice and Readers' Misconceptions". In Young, Dolly J. (ed.). *Affect in foreign language and second language learning: a practical guide to creating a low-anxiety classroom atmosphere*. New York: McGraw Hill, 49-63.

Leichmann, H. 1977. "A diary of one person's acquisition of Indonesian". Unpublished manuscript, English Department, University of California, Los Angeles.

Levine, Glenn S. 2003. "Student and Instructor Beliefs and Attitudes about Target Language Use, First Language Use, and Anxiety: Report of a Questionnaire Study". *The Modern Language Journal* 87 (3), 343- 364.

Levitt; Eugene E. 1980. *The psychology of anxiety*. Hillsdale: Lawrence Erlbaum Associates.

Liu, Meihua. 2006a. "Anxiety in Chinese EFL students at different proficiency levels". *System* 34, 301-316.

Liu, Meihua. 2006b. "Anxiety in EFL Classrooms: Causes and consequences". *TESL*

- Reporter* 39 (1), 13-32.
- Liu, Meihua. 2007. "Anxiety in Oral English Classrooms: A Case Study in China". *Indonesian Journal of English Language Teaching* 3 (1), 119-137.
- Liu, Meihua. 2009. *Reticence and Anxiety in Oral English Lessons*. Bern: Peter Lang.
- Liu, Meihua; Huang, Wenhong. 2011. "An Exploration of Foreign Language Anxiety and English Learning Motivation." *Education Research International*, 1-8.
- Liu, Meihua; Ni, Huiliuqian. 2015. "Chinese University EFL Learners' Foreign Language Writing Anxiety: Pattern, Effect and Causes". *English Language Teaching* 8(3), 46-58.
- MacIntyre, Peter D.; Gardner, Robert C. 1989. "Anxiety and second language learning: Toward a theoretical clarification". *Language Learning* 39, 251-275.
- MacIntyre, Peter D.; Gardner, Robert C. 1991a. "Methods and Results in the Study of Anxiety and Language Learning: A Review of the Literature". *Language Learning* 41 (1), 85-117.
- MacIntyre, Peter D.; Gardner Robert C. 1991b. "Investigating language class anxiety using the focused essay technique". *The Modern Language Journal* 75 (3), 296-304.
- MacIntyre, Peter D.; Gardner Robert C. 1991c. "Language Anxiety. Its relationship to other anxieties and to processing in native and second languages". *Language Learning* 41(4), 513-534.
- MacIntyre, Peter D.; Gardner Robert C. 1994a. "The subtle effects of language anxiety on cognitive processing in the second language". *Language Learning* 44(2), 283-305.
- Macintyre, Peter D.; Gardner, Robert C. 1994b. "The Effects of Induced Anxiety on Three Stages of Cognitive Processing in Computerized Vocabulary Learning". *Studies in Second Language Acquisition* 16 (1), 1-17.
- MacIntyre, Peter D. 1995. "How Does Anxiety Affect Second Language Learning? A Reply to Sparks and Ganschow". *The Modern Language Journal* 79 (1), 90-99.
- MacIntyre, Peter D. 1999. "Language Anxiety: A review of the research for language teachers." In Young, Dolly J. (Ed.). *Affect in foreign language and second language learning*. Boston: McGraw-Hill, 24-45.
- MacIntyre. Peter D. 2002. "Motivation, Anxiety and Emotion in Second Language Acquisition". In Robinson, Peter (ed.): *Individual Differences and Instructed Language Learning*. Amsterdam, Netherlands: Benjamins, 45-68.
- Macmillian Dictionary*. <http://www.macmillandictionary.com/> (20 Jan. 2016).
- McCroskey, James C. 1970. "Measures of communication - bound anxiety". *Speech Monographs* 37 (4), 269-277.

- Mischel, Walter; Peake Philip K. 1982. "Beyond déjà-vu in the search for cross-situational consistency". *Psychological Review* 89, 730-755.
- Moore, T. 1977. "An experimental language handicap (personal account)". *Bulletin of British Psychological Society* 30, 107-110.
- Murray, Henry A. 1971. *Thematic apperception test*. Cambridge, Mass.: Harvard University Press.
- Oda, Ala' H. 2011. "The Effect of Anxiety on Learning English as a Foreign Language". *Journal of the College of Arts* 58, 1-24.
- Oller, John W.; Perkins, Kyle (eds.). 1978. *Language in Education: Testing the Tests*. Rowley: Newbury House.
- Oller, John W. 1981. "Research on the Measurement of Affective Variables: Some Remaining Questions." In Andersen, Roger (ed.): *New dimensions in second language acquisition research*. Rowley: Newbury House, 14-28.
- Onwuegbuzie, Anthony J; Bailey, Philip; Daley, Christine E. 1999. "Factors associated with foreign language anxiety". *Applied Psycholinguistics* 20, 217-239.
- Osboe, Sarah; Fujimura, Tomoko; Hirschel, Rob. 2007. "Student Confidence and Anxiety in L2 Speaking Activities". *Proceedings of the Independent Learning Association 2007 Japan Conference: Exploring theory, enhancing practice: Autonomy across the disciplines*. Kanda University of International Studies, Chiba, Japan.
- Oxford, Rebecca. 1999. "Anxiety and the language learner. New Insights". In Arnold, Jane. *Affect in Language Learning*. Cambridge: Cambridge University Press, 58-67.
- Pajares, Frank; Johnson, Margaret J. 1994. "Confidence and competence in writing: The role of self-efficacy, outcome expectance, and apprehension". *Research in the Teaching of English* 28, 313-331.
- Phillips, Elaine M. 1992. "The Effects of Language Anxiety on Students' Oral Test Performance and Attitudes". *The Modern Language Journal* 76, 14-26.
- Phillips, Elaine M. 1999. "Decreasing Language Anxiety: Practical Techniques for Oral Activities". In Young, Dolly J. (ed.). *Affect in Foreign Language and Second Language Learning: A Practical Guide to Creating a Low-Anxiety Classroom Atmosphere*. Boston, MA: McGraw-Hill, 124-43
- Porte, Graeme (ed.). 2012. *Replication Research in Applied Linguistics*. Cambridge: Cambridge University Press.
- Price, M. K. 1991. "The subjective experience of foreign language anxiety: Interviews with

- anxious students". In Horwitz, Elaine K.; Young, Dolly J. (eds.). *Language anxiety: From theory and research to classroom implications*. Englewood Cliffs: Prentice Hall, 191-108.
- Rasinger, Sebastian M. 2008. *Quantitative Research in Linguistics. An Introduction*. "London: Continuum.
- Riasati, Mohammad J. 2011. "Language Learning Anxiety from EFL Learners' Perspective". *Middle-East Journal of Scientific Research* 7 (6), 907-914.
- Robinson, Peter (ed.). *Individual Differences and Instructed Language Learning*. Amsterdam, Netherlands: Benjamins.
- Saito, Yoshiko; Horwitz, Elaine K.; Garza, Thomas J. 1999. "Foreign Language Reading Anxiety." *Modern Language Journal* 83, 202-18.
- Sarason Irwin G. (ed.). 1980. *Test Anxiety: Theory, Research and Applications*. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- Schuhmann, F. E. 1978. "Diary of a language learner: A further analysis". Paper presented at the Los Angeles Second Language Research Forum, University of Southern California, Los Angeles.
- Schwarzer, Ralf (ed.). *Self-related cognition in anxiety and motivation*. Hillsale, NJ: Erlbaum.
- Scovel, Thomas. 1978. "The effect of affect on foreign language learning. A Review of the Anxiety Research". *Language Learning* 28, 129-142.
- Scovel, Thomas. 2001. *Learning new languages: a guide to second language acquisition*. Boston, Mass.: Heinle & Heinle.
- Sellers, Vanisa D. 2000. "Anxiety and Reading Comprehension in Spanish as a Foreign Language". *Foreign Language Annals* 33(5), 512-520
- Silva, Tony. 1993. "L1 vs L2 writing: ESL graduate students' perceptions". *TESL Canada Journal / Revue TESL du Canada* 10 (1), 27-47.
- Sparks, Richard L.; Ganschow, Leonore E. 1991. "Foreign Language Learning Differences: Affective or Native Language Attitude Differences?" *The Modern Language Journal* 75, 3-16.
- Spielberger, Charles D.; Gorsuch, R.L.; Lushene, R.E. 1970. *State-Trait Anxiety Inventory, Manual for the State-Trait Inventory*. Palo Alto: Consulting Psychologists Press.
- Spielberger, Charles D. 1983. *Manual for the State-Trait Anxiety Inventory (Form Y)*. Palo Alto: Consulting Psychologists Press.
- Steinberg, Faith S.; Horwitz, Elaine K. 1986. "The Effect of Induced Anxiety on the Denotative and Interpretive Content of Second Language Speech". *TESOL Quarterly* 20,

131-136.

- Swain, Merrill; Burnaby, Barbara. 1976. "Personality characteristics and second language learning in young children: A pilot study". *Working papers in Bilingualism* 11, 115-128.
- Tobias, Sigmund. 1979. "Anxiety Research in Educational Psychology". *Journal of Educational Psychology* 71 (5), 573-582.
- Tobias, Sigmund. 1986. "Anxiety and cognitive processing of instruction". In Schwarzer, Ralf (ed.). *Self- related cognition in anxiety and motivation*. Hillsale, NJ: Erlbaum, 35-54.
- Vellutino, F.; Scanlon, D. 1986. "Linguistic Coding and Metalinguistic Awareness: Their Relationship to Verbal And Code Acquisition in Poor and Normal Readers". In Yaden, David B.; Templeton, Shane (eds.). *Metalinguistic Awareness and Beginning Literacy*. Portsmouth, NH: Heinemann, 115-41.
- Vogely, Anita. 1998a. "Addressing Listening Comprehension Anxiety". In Young, Dolly J. (ed.). *Affect in foreign language and second language learning: a practical guide to creating a low anxiety classroom atmosphere*. New York: McGraw-Hill, 106-123.
- Vogely, Anita. 1998b. "Listening Comprehension Anxiety: Students' Reported Sources and Solutions". *Foreign Language Annals* 31(1), 67- 80.
- VOICE. 2013. *The Vienna-Oxford International Corpus of English* (version 2.0 online). Director: Barbara Seidlhofer; Researchers: Angelika Breiteneder, Theresa Klimpfinger, Stefan Majewski, Ruth Osimk-Teasdale, Marie-Luise Pitzl, Michael Radeka. <http://voice.univie.ac.at> (28 June 2015).
- Von Wörde, Renée. 2003. "Students' Perspectives on Foreign Language Anxiety". *Inquiry* 8(1), 1-19.
- Walsleben, M. 1976. "Cognitive and affective factors influencing a learner of Persian (Farsi) including a journal of second language acquisition". Unpublished manuscript, English Department, University of California, Los Angeles.
- Wang, Shengli. 2010. "An Experimental Study of Chinese English Major Students' Listening Anxiety of Classroom Learning Activity at the University Level". *Journal of Language Teaching and Research* 1 (5), 562-568.
- Watson, David; Friend, Ronald. 1969. "Measurement of Social- Evaluative Anxiety". *Journal of Consulting and Clinical Psychology* 33, 448-451.
- Wine, Jeri D. 1980. "Cognitive-attentional Theory of Test Anxiety" In Sarason, Irwin G. (ed.). *Test Anxiety: Theory, Research and Applications*. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers, 349-85.
- Williams, Kenneth. 1991. "Anxiety in formal second/foreign language learning". *RELC Journal* 22, 19-28.

- Yaden, David; Templeton, Shane (eds.). *Metalinguistic Awareness and Beginning Literacy*. Portsmouth, NH: Heinemann.
- Yan, Jackie X.; Horwitz, Elaine K. 2008. "Learners' Perceptions of How Anxiety Interacts with Personal and Instructional Factors to Influence Their Achievement in English: A Qualitative Analysis of EFL Learners in China" *Language Learning: A Journal of Research in Language Studies*, 151-183
- Yerkes, Robert M.; Dodson, John D. 1908. "The relation of strength of stimulus to rapidity of habit-formation." *Journal of Comparative Neurology and Psychology* 18, 506-510.
- Young, Dolly J. 1986. "The Relationship Between Anxiety and Foreign Language Oral Proficiency Ratings". *Foreign Language Annals* 19 (5), 439-445.
- Young, Dolly J. 1990. "An investigation of students' perspectives on anxiety and speaking". *Foreign Language Annals* 23, 539-553
- Young, Dolly J. 1991. "Creating a Low-Anxiety Classroom Environment: What Does Language Anxiety Research Suggest?" *The Modern Language Journal* 75 (4), 426-437.
- Young, Dolly. J. 1999. "Foreign Language Writing Anxiety Scale (FLWAS)". In Young, Dolly J. (Ed.). *Affect in foreign language and second language learning: A practical guide to creating a low-anxiety classroom atmosphere*. New York: McGraw Hill, 257.
- Young, Dolly J. 1999. *Affect in Foreign Language and Second Language Learning: A Practical Guide to Creating a Low-Anxiety Classroom Atmosphere*. New York: McGraw-Hill.
- Zuckerman, Marvin; Lubin, Bernard. 1960. *Multiple affect adjective checklist*. San Diego: San Diego Educational and Industrial Testing Services.

Appendices

Appendix A

Picture 1



(Murray 1971)

Picture 2



(Murray 1971)

Picture 3



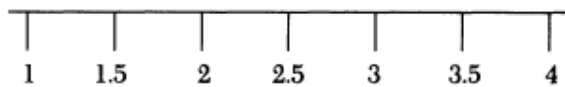
(Murray 1971)

Rater Instructions

FIGURE 1
Rater Instructions

Please rate each picture description according to the amount of denotative or interpretive material it contains.

4. Performance is heavily loaded with personal interpretation of picture, going beyond the elements actually present.
3. Performance contains a significant, but not striking, amount of interpretation. The amounts of denotative and interpretive material are approximately equal.
2. Most information is denotative, with a few interpretive elaborations.
1. Communication is almost entirely denotative; almost no interpretation is provided.



(Steinberg and Horwitz 1986)

STAI German Version Form X1

Fragebogen zur Selbstbeschreibung

STAI-G Form X 1

Name _____ Mädchenname _____
 Vorname _____ Geburtsdatum _____ Alter _____ Jahre
 Beruf _____ Geschlecht m/w
 Datum _____ Institution _____
 Uhrzeit _____

Anleitung: Im folgenden Fragebogen finden Sie eine Reihe von Feststellungen, mit denen man sich selbst beschreiben kann. Bitte lesen Sie jede Feststellung durch und wählen Sie aus den vier Antworten diejenige aus, die angibt, wie Sie sich jetzt , d. h. in diesem Moment , fühlen. Kreuzen Sie bitte bei jeder Feststellung die Zahl unter der von Ihnen gewählten Antwort an. Es gibt keine richtigen oder falschen Antworten. Überlegen Sie bitte nicht lange und denken Sie daran, diejenige Antwort auszuwählen, die Ihren augenblicklichen Gefühlszustand am besten beschreibt.	ÜBERHAUPT NICHT	EIN WENIG	ZIEMLICH	SEHR
	1	2	3	4
1. Ich bin ruhig	1	2	3	4
2. Ich fühle mich geborgen	1	2	3	4
3. Ich fühle mich angespannt	1	2	3	4
4. Ich bin bekümmert	1	2	3	4
5. Ich bin gelöst	1	2	3	4
6. Ich bin aufgeregt	1	2	3	4
7. Ich bin besorgt, daß etwas schiefgehen könnte	1	2	3	4
8. Ich fühle mich ausgeruht	1	2	3	4
9. Ich bin beunruhigt	1	2	3	4
10. Ich fühle mich wohl	1	2	3	4
11. Ich fühle mich selbstsicher	1	2	3	4
12. Ich bin nervös	1	2	3	4
13. Ich bin zappelig	1	2	3	4
14. Ich bin verkrampft	1	2	3	4
15. Ich bin entspannt	1	2	3	4
16. Ich bin zufrieden	1	2	3	4
17. Ich bin besorgt	1	2	3	4
18. Ich bin überreizt	1	2	3	4
19. Ich bin froh	1	2	3	4
20. Ich bin vergnügt	1	2	3	4

(Laux 1981)

Total frequencies of item choice on the STAI for the nonanxiety group

Items	Überhaupt Nicht	Ein We- nig	Ziemlich	Sehr
1. Ich bin ruhig		2	4	
2. Ich fühle mich geborgen			4	2
3. Ich fühle mich angespannt	1	3	1	1
4. Ich bin bekümmert		4	2	
5. Ich bin gelöst		3	3	
6. Ich bin aufgeregt	4		1	1
7. Ich bin besorgt, daß etwas schiefgehen könnte		3	3	
8. Ich fühle mich ausgeruht		1	2	3
9. Ich bin beruhigt	5	1		
10. Ich fühle mich wohl		1	3	2
11. Ich fühle mich selbst- sicher	1	2	2	1
12. Ich bin nervös	1	4		1
13. Ich bin zappelig	4	2		
14. Ich bin verkrampft	2	4		
15. Ich bin entspannt			6	
16. Ich bin zufrieden		2	2	2
17. Ich bin besorgt	6			
18. Ich bin überreizt	4	2		
19. Ich bin froh		3	3	
20. Ich bin vergnügt		1	5	

Percentages of item choice on the STAI for the nonanxiety group

Items	Überhaupt Nicht	Ein We- nig	Ziemlich	Sehr
1. Ich bin ruhig		33,3	66,6	
2. Ich fühle mich geborgen			66,6	33,3
3. Ich fühle mich angespannt	16,6	50	16,6	16,6
4. Ich bin bekümmert		66,6	33,3	
5. Ich bin gelöst		50	50	
6. Ich bin aufgeregt	66,6		16,6	16,6
7. Ich bin besorgt, daß etwas schiefgehen könnte		50	50	
8. Ich fühle mich ausgeruht		16,6	33,3	50
9. Ich bin beruhigt	83,3	16,6		
10. Ich fühle mich wohl		16,6	50	33,3
11. Ich fühle mich selbst- sicher	16,6	33,3	33,3	16,6
12. Ich bin nervös	16,6	66,6		16,6
13. Ich bin zappelig	66,6	33,3		
14. Ich bin verkrampft	33,3	66,6		
15. Ich bin entspannt			100	
16. Ich bin zufrieden		33,3	33,3	33,3
17. Ich bin besorgt	100			
18. Ich bin überreizt	66,6	33,3		
19. Ich bin froh		50	50	
20. Ich bin vergnügt		16,6	83,3	

Total frequencies of item choice on the STAI for the anxiety group

Items	Überhaupt Nicht	Ein We- nig	Ziemlich	Sehr
1. Ich bin ruhig		3	2	1
2. Ich fühle mich geborgen		1	2	3
3. Ich fühle mich angespannt	2	2	2	
4. Ich bin bekümmert	3	1		2
5. Ich bin gelöst	1	4	1	
6. Ich bin aufgeregt	4	1	1	
7. Ich bin besorgt, daß etwas schiefgehen könnte	2		3	1
8. Ich fühle mich ausgeruht	2	3		1
9. Ich bin beruhigt	4	1	1	
10. Ich fühle mich wohl		1	4	1
11. Ich fühle mich selbst- sicher		1	4	1
12. Ich bin nervös	2	2		2
13. Ich bin zappelig	4	1	1	
14. Ich bin verkrampft		4	1	1
15. Ich bin entspannt	1	2	2	1
16. Ich bin zufrieden	1	3	1	1
17. Ich bin besorgt	2	2	2	
18. Ich bin überreizt	2	1	3	
19. Ich bin froh		5		1
20. Ich bin vergnügt		2	3	1

Percentages of item choice on the STAI for the anxiety group

Items	Überhaupt Nicht	Ein We- nig	Ziemlich	Sehr
1. Ich bin ruhig		50	33,3	16,6
2. Ich fühle mich geborgen		16,6	33,3	50
3. Ich fühle mich angespannt	33,3	33,3	33,3	
4. Ich bin bekümmert	50	16,6		33,3
5. Ich bin gelöst	16,6	66,6	16,6	
6. Ich bin aufgeregt	66,6	16,6	16,6	
7. Ich bin besorgt, daß etwas schiefgehen könnte	33,3		50	16,6
8. Ich fühle mich ausgeruht	33,3	50		16,6
9. Ich bin beruhigt	66,6	16,6	16,6	
10. Ich fühle mich wohl		16,6	66,6	16,6
11. Ich fühle mich selbst- sicher		16,6	66,6	16,6
12. Ich bin nervös	33,3	33,3		33,3
13. Ich bin zappelig	66,6	16,6	16,6	
14. Ich bin verkrampft		66,6	16,6	16,6
15. Ich bin entspannt	16,6	33,3	33,3	16,6
16. Ich bin zufrieden	16,6	50	16,6	16,6
17. Ich bin besorgt	33,3	33,3	33,3	
18. Ich bin überreizt	50	16,6	50	
19. Ich bin froh		83,3		16,8
20. Ich bin vergnügt		33,3	50	16,6

Transcript of study

Person 1:

Picture 1:

Level A: I see a horse and fields with workers and a woman, who has books with her, and another one, who, I think, is pregnant.

Level B: A man, who works with the horse.

Level C: I think they are farmers, who work in the fields for their money, and it seems like it is really hot because the farmer in the middle does not wear a t-shirt. In the background there is a house and I think it is theirs and they might have gone from there to the fields. It is not a long way.

Picture 2:

Level A: I see a man, furniture with books and a woman who looks inside the room. She opens the door and she is very **(frozen)** and very shocked maybe .

Level B: It could be that the woman sees something she does not want to see.

Level C. Maybe she sees her boyfriend or husband with another woman or something like that.

Picture 3

Level A: I also see a woman and in the background two men who kill another man with a knife and the woman is very **(straight)** and looks very unhappy.

Level B: The men are very concentrated on the other man who is being killed. It is an unhappy scene.

Level C: It could be that there was a criminal case before. The man who is being killed has stolen something from the woman and the woman says to the other men that they should kill him because the man is bad and not a good man.

Person 2

Picture 1

Level A: So I can see a woman holding books and a man without a t-shirt with a horse on a field. I think this should be pyramids in the background.

Level B: I think the man is working the field with the horse and the woman in the front should show a woman studying or a woman that is allowed to learn.

Level C: Maybe this could be from another century, so before our age and the woman was allowed to educate herself and maybe the woman in the background is not happy that she is allowed to do that.

Picture 2

Level A: I can see a room with a table and a cupboard with flowers and a lamp and a woman is standing in the door or rather in front of the door looking inside.

Level B: I think she is looking for something inside the room, maybe someone is inside the room. She looks angry or mad.

Level C: Maybe she is looking for her husband or her son and maybe they did something bad which made her mad.

Picture 3

Level A: I can see a little boy in the front and three men in the background. One of them is lying on something, maybe this is a bed. The other two men hurt him or they are stabbing him with a knife I think.

Level B: I think the two men with the knife are doctors and want to do surgery on the man who is lying and the boy wears something like an old school uniform.

Level C: I have something on my mind, but I am not sure if that is connected to the other two men with the knife. Maybe the boy is from a rich family and at a better school and wants to become a doctor.

Person 3

Picture 1

Level A: There is a farmer's wife and farmers and a horse and a field. In the background you can see a house and mountains.

Level B: They are working the fields and the wife does not really help the farmers.

Level C: Maybe it is in the Middle Ages. There is a second woman in the picture and the women do not really work in the field, I think. Only the men are working in the field.

Picture 2

Level A: There is a woman who looks into a room. In the room there is a desk, a cupboard, a bookshelf, flowers, a lamp.

Level B: The woman looks after something, but we do not see after what.

Level C: Maybe she is searching something or she calls the kids because dinner is ready or something like that.

Picture 3

Level A: You can see a boy in the front and in the background there are two men cutting another man's stomach.

Level B: Maybe they operate him or they want to <un> x </un> him pain.

Level C: It might be in a war and they only want to help him because he needs it or they are bad and they only want to hurt him

Person 4

Picture 1

Level A: I see a horse and men, farmers, and a mother on the left side and hills and houses. The woman holds a book in her hand. The clothes are old and old-fashioned and the horse works the field. It could be a poor family.

Level B: The family works on the farm. The old woman on the left side is standing there. The young girl wants to learn with the books and tries to get a better life and the boy works in the fields.

Level C: I think it is a poor family. They have to work on the farm all day and help mother and father. The girl wants to get a better life and wants to go to school and learn to have a better job, but the boy cannot do this, he has to help.

Picture 2

Level A: I see a woman, a room, a cupboard, flowers, a vase, books.

Level B: She looks into the room as if something happened, but she does not know what.

Level C: I think she heard a noise and looks into the room to know what it is.

Picture 3

Level A: I see people, a knife, a child, and this is a gun.

Level B: They are doctors. The child is cutting the man lying on the bed and they want to study what is inside the men and it is horrible for him.

Level C: It might be in the 19th century, so a long time ago, and the doctors in this picture want to find out new things in medicine, so they are cutting him to see the organs inside him.

Person 5

Picture 1

Level A: I can see a woman with some books in her hand and a man who is working a field with a horse and another woman is standing next to a tree and looks over the man to check what he is doing. Also, I see a lake behind a barn or house.

Level B: I think the man works in a field and he is a farmer and I think the woman on his left side is his wife and the younger woman maybe is his daughter and she does not want to work in the same job as her father or mother did, so she has the books in her hands and she wants to study. She is also well-dressed and I think she is a student.

Level C: The girl is going to school while her parents are working. I think before she goes to school, she has to help her parents with work and maybe her mother is tired and she looks a little bit sad. I think she is sad, because she has to go to school but she also wants to help her parents, but cannot do both at the same time.

Picture 2

Level A: I can see some flowers on a desk and a woman who is opening the door and is looking for something and there are also many books standing there. The furniture seem old and expensive.

Level B: I think the woman is looking for something, maybe her children are playing in this room and she wants to visit them and look if everything is okay. Or maybe she heard some noise and she wants to know what it was or maybe something dropped down and she wants to see what it was.

Level C: Maybe the woman was cooking dinner and she heard a noise from this room. Maybe there is also a second floor, because there is also a door and she goes downstairs and looks what is happening in this room.

Picture 3

Level A: There are three guys and one of these guys lays on the ground and the others have got a knife in their hands and they want to cut him with it. Or maybe they are murderers. There is a guy with a suit.

Level B: I think it could be an operation scene and maybe the two guys in the background of the picture are doctors. And maybe it is a rich kid, maybe this pictures describes that he will die and it should show us that money cannot buy everything, because for example when he is very ill, nothing can help him.

Level C: I think this boy was very ill for a long time. At first, he was healthy, then he became ill and now he needs an operation. He is dying because nobody can help him, because he is so ill. The doctors give their best, but they look very nervous and I think they know what it means to this guy.

Person 6:

Picture 1

Level A: I can see three people and a horse: One woman with books in her hands, another woman is leaning against a tree, and the third human is a man, who is holding the horse.

Level B: The man is showing the horse the way, maybe where the horse should go and the woman with the books in her hands is looking at the horizon, maybe she has seen something. The woman next to the tree is leaning against it and she is sleeping or just staring at the sun or enjoying the sun.

Level C: Maybe it was years ago, like the 18-hundreds or so and these are farmers in America and the young lady in the front with the books wants to go study, but her parents who are the other two people, the one leaning against the tree and the farmer, do not have enough money and she has to look for money or she is just looking for an opportunity to go to the city to work there and to make money, so she can go study in the city and become a doctor or a lawyer.

Picture 2

Level a: I see a woman in a dress, an open door, a bookshelf, a lamp, a flower in a vase, and a table.

Level B: The woman in the open door is looking into the room and she holds the door knob and she looks scared. I think her face looks scared.

Level C: Maybe she is just looking into the room searching for her child or she is seeing something in the corner of the room, maybe somebody sitting there or maybe she has also seen a crime, because of the scared face. I think in the next second she will smash the door and run away.

Picture 3

Level A: I see four people, or I think four men, and a lamp, a knife.

Level B: I think one person is lying on a bed and his stomach is being cut by another man and I think that this person is screaming or crying. And one person is standing in the front and is looking like maybe he is watching out for somebody

Level C: Maybe it is about a crime, I think maybe about drugs. The man in the front with the black suit maybe is the drug boss and the man whose stomach is cut might be a dealer who is bad, who took bad actions and now he has to deal with it.

Person 7

Picture 1

Level A: I can see a farm, three people, one is probably working on it standing there with a horse. It is a man, he is shirtless and there is a girl standing in the front with a book, she is holding a book in her hand. Maybe she is the daughter of the man on the field and the woman on the left side. The woman on the left side is touching her belly, she looks like she may be pregnant.

Level B: I think that maybe the father is trying to command the horse to go somewhere on the field right now, maybe to work the field. The mother looks like she is relaxing and the daughter...well what could the daughter do? I do not know.

Level C: Maybe before this picture the daughter just came home from school, she brought her books with her. Maybe the mother came out of the house to call the daughter and the dad in for lunch. And what could have happened after? Maybe they went inside the house and ate.

Picture 2

Level A: This is inside a house, there is a woman standing in a door. I can see flowers standing on a table, a lamp, which is running right now. There is a shelf and over the shelf is another shelf hanging from the wall with books on it. The woman looks like maybe she is searching for something in the room.

Level B: She is probably searching something inside the room or maybe someone is inside the room and she does not know.

Level C: Maybe she heard a strange noise inside the house and she

was trying to find out what it possibly could have been. And what could have happened after? Maybe she found nothing and went to bed again.

Picture 3

Level A: I can see four people, all of them are men. One of them is lying on a couch and I can see something that looks like a rifle. In the background there is a wall and one of the men has a knife.

Level B: One of the men is lying and they are cutting his stomach. Maybe they are killing him, it does not look like they are doctors or anything or as if they are trying to save him. It looks like they are actually killing him. I think it looks like he is not alive anymore.

Level C: Maybe they robbed him or maybe they are just murderers. And what happened afterwards? They stole everything he had and went away.

Person 8

Picture 1

Level A: I can see a woman holding books. In the background there is a man with a horse, there are houses in the background. On the left side is another woman.

Level B: -

Level C: I think the woman is searching for something, maybe the man in the background.

Picture 2

Level A: I can see a woman, a door, a table, some flowers, a lamp, a shelf and books.

Level B: The woman comes into the room and is opening the door and I think she is also searching for something.

Level C: Maybe she had a discussion with the husband and she is very angry and ran away and now she is searching for him and that is why she looks so confused.

Picture 3

Level A: I can see another woman, I think, in the front of the picture and in the background are three men.

Level B: The three men in the background hurt the person lying on the bed.

Level C: I Think this maybe is a picture of the National Socialism, maybe the woman in the front is an officer or so and the men in the background want to know something from the person lying on the bed, but he will not tell them and that is the reason why they cut off his hand or so.

Person 9

Picture 1

Level A: I see people on a field, maybe they are farmers, a horse and it is in the past.

Level B: The woman is learning from the books. The man is farming.

Level C: This is the harvest.

Picture 2

Level A: I see a woman and a table and flowers, a lamp, books.

Level B: The woman looks into the room.

Level C: Maybe she is looking for her child.

Picture 3:

Level A: I see people and a boy. There is an operation going on in the picture.

Level b: There is an operation going on. It may also be in the past because of the operation instruments.

Level C: The man on the operation table is sick, the doctors are saving him.

Person 10

Picture 1

Level A: There is a woman and she is holding books and behind the woman is another woman on the left side and in the middle of the picture is a man and a horse and in the background there are hills and there is a house.

Level B: The man is working on the field, the woman on the left side is standing next to a tree.

Level C: The woman on the left side watches the man doing work and the girl might just have come home from work or from school.

Picture 2

Level A: A woman, a room, there are books and a table, lamps.

Level B: The woman is looking through the door and she looks into the room.

Level C: It could be that the woman heard anything, a noise or so, and that is why she looks into the room.

Picture 3

Level A: There are doctors and a patient is lying on the table and there is a nurse and a woman.

Level B: The doctor cuts the patient on the table and the male nurse watches.

Level C: The woman could have come into the room and the doctor could cut the patient against his will, because the man on the table looks as if he was in pain.

Person 11

Picture 1

Level A: I can see four people and a horse and I guess they are farmers .

Level B: Like I said, they are farming something.

Level C: I do not know what could have happened, but one woman is holding books in her hand and the other woman is staring at the air.

Picture 2

Level A: There is a room and a woman is looking into the room. I can see a table and lamps. The woman is wearing a dress. And I can see a bookshelf.

Level B: The woman is watching something and looks through the open door.

Level C: I do not know, but maybe the woman lives in the house and she heard something and opened the door and is now watching what is going on there.

Picture 3

Level A: I can see a man who is watching a murder action. Two men are performing surgery on a dead boy or young man, who does not wear any t-shirt.

Level B: They are performing surgery on this man with a knife.

Level C: I do not know, but maybe they are doctors or they are taking illegal actions and this boy in the front is trying to convince me not to look at it.

Person 12

Picture 1

Level A: I see a woman holding books, a man with a horse on the field, a house in the back-ground, the sea and a woman standing in the left.

Level B: I think the guy plants seeds on the field.

Level C: The woman is going to tell the man that the meal is ready and his daughter comes home from school.

Picture 2

Level A. I see a woman looking through the door and a room with a plant and a lamp.

Level B: I think the woman is going into the room to read a book or something.

Level C: I think the woman is going into the room to read a book.

Picture 3

Level A. I see a little boy and two people doing surgery on a guy.

Level B : There is an operation.

Level C: Maybe the guy has cancer or something and they are doing surgery.

Key of symbols:

Uncertain transcriptions	Word fragments, words or phrases which cannot be reliably identified are put in parentheses ().
Unintelligible Speech	Unintelligible speech is represented by x's approximating syllable number and placed between <un> </un> tags.

Source:

VOICE. 2013. *The Vienna-Oxford International Corpus of English* (version 2.0 online). Director: Barbara Seidlhofer; Researchers: Angelika Breiteneder, Theresa Klimpfinger, Stefan Majewski, Ruth Osimk-Teasdale, Marie-Luise Pitzl, Michael Radeka. <http://voice.univie.ac.at> (28 June 2015).

Appendix B

English Abstract

This diploma thesis explores the link between Foreign Language Anxiety (FLA) and oral performance in English as a Foreign Language (EFL) as observed with Austrian learners at the secondary level.

The phenomenon of FLA and its effect on language learning has been of great interest for applied linguists for some time, with the majority of linguists investigating the relation between FLA and language proficiency. In order to confirm either the debilitating or facilitating impact of FLA on Second Language Acquisition (SLA), final course grades and/or test scores have usually been considered to be the best indicators of how achievement is influenced by FLA. However, other criteria for examining the effect FLA has on language learning – especially on oral production – have remained largely unexplored. Steinberg and Horwitz (1986) were the first researchers to take a different approach to FLA, with the objective of investigating how different anxiety levels contribute to denotative and interpretive language elements in speech. Their findings – that higher levels of FLA trigger less interpretive speech, whereas lower levels correlate with a larger amount of interpretation using spoken utterances – added groundbreaking insights into FLA research. However, over the last 30 years no attempts have been made to confirm or refute their findings by replicating their study, and it is therefore the objective of this thesis to undertake this task. To this end, a replication study modeled on the original study entitled “The Effect of Induced Anxiety on the Denotative and Interpretive Content of Second Language Speech” was conducted. The language analyzed in the replication study derives from an experiment carried out at an Austrian vocational school leading to higher education entrance qualifications and was elicited through Murray’s Thematic Apperception Test (1971). Anxiety levels were calculated using Spielberger’s State-Trait Inventory questionnaire (1983). The findings of the replication study across populations, settings and time show that Steinberg’s and Horwitz’ findings do not hold for the Austrian EFL context.

Using descriptive and inferential statistics, no statistically-significant correlation was found between levels of FLA and interpretive statements, which led to the conclusion that FLA was not a predictor of successful or unsuccessful performance in EFL in the study at hand.

German Abstract (Deutsche Zusammenfassung)

Die vorliegende Diplomarbeit beschreibt den an österreichischen SchülerInnen beobachteten Zusammenhang zwischen Fremdsprachenangst und mündlicher Leistung in Englisch als Fremdsprache (EFL).

Das Phänomen der Fremdsprachenangst und sein Einfluss auf das Erlernen von Sprachen sind seit einiger Zeit von hohem Interesse für angewandte Sprachwissenschaftler, welche größtenteils die Beziehung zwischen Fremdsprachenangst und Sprachkompetenz untersucht haben. Endnoten von Sprachkursen und/ oder Testergebnisse wurden dabei als die besten Indikatoren für das Feststellen eines schädlichen beziehungsweise fördernden Charakters von Fremdsprachenangst auf den Zweitspracherwerb betrachtet. Andere mögliche Effekte von Fremdsprachenangst für das Sprachenlernen - und speziell für die mündliche Leistung - blieben bis zum heutigen Zeitpunkt jedoch relativ unerforscht.

Steinberg und Horwitz (1986) waren die ersten Forscher, welche einen anderen Ansatz zur Fremdsprachenangst wählten, mit dem Ziel zu untersuchen, wie unterschiedliche Angstniveaus zu denotativen beziehungsweise interpretativen Sprachelementen in der mündlichen Rede in EFL führen. Ihr Ergebnis, dass höhere Niveaus an Fremdsprachenangst weniger interpretative Sprache herbeiführen, während niedrigere Niveaus mit einer größeren Menge an Interpretation in mündlichen Aussagen einhergehen, lieferte bahnbrechende Erkenntnisse für die Forschung über Fremdsprachenangst. Dennoch wurden keine Versuche unternommen, ihre Ergebnisse mittels Replikation zu bestätigen oder zu widerlegen, was daher das Ziel dieser Diplomarbeit darstellt. Eine Replikation der Originalstudie "The Effect of Induced Anxiety on the Denotative and Interpretive Content of Second Language Speech" wurde angestellt. Die Daten, welche in der Replikation analysiert wurden, stammen aus einer empirischen Studie, die an einer österreichischen Berufsbildenden Höheren Schule durchgeführt wurde, und wurden durch Murrays Thematischen Apperzeptionstest (1971) gewonnen. Die Angstniveaus wurden mittels deutscher Version von Spielbergers State-Trait Angstinventar gemessen. Die Ergebnisse aus der Replikation, welche eine Änderung der Stichprobe, des Umfeldes und des Zeitpunktes erfuhr, zeigten, dass Steinbergs und Horwitz' Ergebnisse nicht für den österreichischen Kontext generalisiert werden können.

Es wurde keine statistisch relevante Korrelation zwischen Angstniveau und interpretativen Aussagen durch die Anwendung deskriptiver und inferenzstatistischer Verfahren gefunden, was die Schlussfolgerung zulässt, dass Fremdsprachenangst in EFL kein Prädiktor für eine erfolgreiche Leistung in der vorliegenden Studie war.