

MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„Exploring foreign language emotions
in the Austrian lower-secondary English classroom“

verfasst von / submitted by

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angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of
Master of Education (MEd)

Wien, 23. 05. 2023 / Vienna May 23rd 2023

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

UA 199 507 525 02

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

Masterstudium Lehramt Sek (AB) Lehrverbund
UF Englisch Lehrverbund
UF Psychologie und Philosophie Lehrverbund

Betreut von / Supervisor:

Univ.-Prof. Mag. Dr. Christiane Dalton-Puffer

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Acknowledgements

First and foremost, I would like to thank my supervisor Univ.-Prof. Mag. Dr. Christiane Dalton-Puffer for her great patience, valuable feedback, and continued support throughout writing my master's as well as bachelor's thesis.

Furthermore, I would like to express my warmest thanks to the educators and participants involved in my data-collection process: Thank you, Liliana and Brigitte, for making it possible to explore your students' foreign language emotions. Many thanks also go to Daniela, Sabine, Sandrina, Branko, Michaela, and Robert, and especially to the learners who shared their experience with me.

I would also like to express deep gratitude to my parents, Lili and Erwin, and to my friends, who have supported me from my first school years to finally completing this thesis. I would particularly like to thank Ozan and Nadja for their continuous encouragement and support through several difficult chapters not only in my thesis but also in life in general.

Lastly, I thank Marian for always being there for me. You make me worry less and smile more.

Thank you!

1. Introduction

“Don’t worry be happy” (McFerrin 1988)

Artists have been incorporating ideas found in popular psychology in their works for many years. For example, in the famous acapella song “Don’t worry be happy”, Bobby McFerrin (1988) emphasizes the importance of worrying less to achieve more happiness in life. The simplicity of not only the song arrangement but also of its clear message may have been the reason for its remarkable success all over the world. However, the question remains whether this simple piece of advice may be helpful in all aspects of life. One may frequently face a myriad of situations that can be challenging and, thus, anxiety-laden at work or in school, for instance, whereas the absence of perceived challenge may lead to boredom. Consequently, it may be possible that the refusal to worry does not automatically evoke happiness and enjoyment after all. In fact, according to scholars, the effects of emotions can be manifold since “[a]ny emotion can be facilitative or restrictive, motivating or demotivating, adaptive or maladaptive” (Prior 2019: 522).

Exploring the role of emotions in great detail, researchers have been trying to grasp the complexity of negative and positive affect for the past few decades especially. A large number of investigations have already produced invaluable insights in various research fields including teaching and learning. However, findings suggest that the sources and effects of different emotions are much more complex than implied by popular culture and media. Research in the context of second and foreign language learning, for example, has shown that learners may experience a multitude of emotions simultaneously in their classrooms. These emotions may interact with each other and can be linked to independent variables related to learner characteristics, learning outcomes, and institutions. Furthermore, learner groups may differ considerably from each other when it comes to their foreign language emotions.

The thesis at hand aims to review the current discourse concerning emotions in the foreign language classroom by outlining related theories and summarizing results from previous empirical investigations. Most of these research projects obtained data from advanced foreign language students, whereas only few also included younger participants. The present thesis will describe and interpret the findings of a study focusing on the enjoyment and anxiety of Austrian lower-secondary learners of English. Statistical analyses will be performed to support or reject the following three

assumptions: Firstly, it is hypothesized that similar to findings from other learner groups more enjoyment than anxiety is experienced, and the two FL emotions are linked. Secondly, it is proposed that enjoyment and anxiety are closely related to learner characteristics, self-assessment, and achievement variables. Thirdly, it is argued that participants of a different gender, in different academic years, at different performance levels, or with different learning outcomes differ in their FL emotions. Since the school subject *English* is mandatory in the majority of Austrian schools for 10- to 14-year-olds, significant results of the present study may carry important implications for both students and educators.

This thesis is structured as follows: Chapter 2 discusses the role and impact of emotions in the learning process more generally, whereas section 3 establishes the theoretical and empirical groundwork for understanding the relations between emotions and foreign language learning more specifically. The methodology of the research project is introduced in chapter 4, and, subsequently, the thesis presents its key results in section 5. Finally, the implications of these results are discussed, and a summarizing conclusion is drawn in chapters 6 and 7, respectively.

2. Emotions in the learning process

Since emotions “are notoriously difficult to grasp scientifically” (Piniel & Albert 2018: 128), there is not one universal definition used by all researchers in the field of psychology. However, many scholars agree that the term ‘emotion’ describes a multi-componential concept comprised of perceiving, experiencing, and processing certain phenomena (Izard 2010: 368). In the study at hand, Keltner, Oatley, and Jenkins’ definition has been adopted if not further specified. This definition states that emotions are “multifaceted responses to events that we see as challenges or opportunities in our inner or outer world” and “responses to events [...] that are important to our goals” (Keltner, Oatley & Jenkins 2014: 27).

The notion of ‘emotion’ is frequently defined in opposition or in relation to ‘mood’, ‘affect’, and ‘trait’. According to Oatley (2004: 4), moods are not specifically referring to a certain event or person whereas emotions usually refer to a specific object and are less free-floating. For instance, while one may not be able to specify the reason for one’s irritability (i.e., being in an irritable mood), the source of the emotion anger is usually known. Moreover, emotions can be differentiated from moods by their shorter

lifespan: While moods usually persist for hours, days or weeks, emotions usually dissolve after minutes or a few hours (Keltner, Oatley & Jenkins 2014: 28). With regard to the term 'affect', scholars usually refer to a much broader idea, which encompasses emotions, moods, and aspects of one's personality, (Pinel & Albert 2018: 129). Traits constitute another concept frequently linked to the terminology of emotions. According to Keltner, Oatley, and Jenkins (2014: 29) traits are closely related to one's personality and may last even longer than moods. Examples for traits include shyness or agreeableness.

Teaching and learning research did not focus on emotions until the late 2000s even though they were already considered to be vital in the 1980s by scholars such as Krashen (1982) and Weiner (1985). According to Krashen (1982: 32), the experience of emotions by learners may have a facilitating or impeding effect on language acquisition depending on the affective filter that is activated. For instance, when a student is feeling anxious, the processing of input may consequently be prevented; that means that the affective filter, i.e., anxiety, may act as a barrier sliding in place (Hedge 2000: 21). In Weiner's (1985) attributional theory, it is argued that the degree of control over success and failure perceived by learners constitutes another important factor directly related to emotions: Depending on whether learning outcomes are attributed to internal or external causes, different kinds of positive and negative emotions may be evoked (Weiner 1985: 561), which may in turn influence future efforts (Weiner 1985: 566). If negative experiences are, for example, attributed to internal causes repeatedly, learners might expect to become anxious, and performance may decrease consequently (MacIntyre & Gardner 1991: 110). In fact, anxiety in particular may "create neural static, sabotaging the ability of the prefrontal lobe to maintain working memory" (Goleman 1995: 27). This and similar findings lead researchers to argue that emotions in general may indeed be an integral part of cognition (Schumann 1994: 232) and, therefore, of learning. Although the topic of emotions in the learning process remained rather under-researched up until the 21st century, these publications laid the groundwork for contemporary investigations.

Over the last two to three decades, there has been a substantial increase in studies on the previously overlooked relationship between emotions and the learning process. Similarly to various fields of psychology, research in the field of learning at first primarily focused on negative emotions such as sadness, anger, or fear and their implications (Fredrickson & Joiner 2018: 195). In reference to instructed learning, test

anxiety, foreign language anxiety, and other negative emotional constructs have, thus, been investigated “for a considerably longer period of time and with much greater intensity” than emotions of positive valence (Simons & Smits 2021: 23). This trend even led scholars such as Mohammadipour et al. (2018: 87) to claim that the role of positive emotions had “been abandoned” in the past. According to Fredrickson and Joiner (2018: 195), it is possible that pleasant emotional experiences were viewed as barely significant and even as having no useful or serious purpose until positive psychology (PP) was introduced by Seligman and Csikszentmihalyi in 2000.

The concept of PP has gained widespread popularity over the last twenty years (Shao et al. 2020: 2). Seligman first mentioned PP as a structured discipline in his Presidential Address in front of the American Psychological Association in 1998 (Seligman 1999: 561). The roots of PP, however, can on the one hand be found in Aristotle’s teachings of *eudaimonia*, which refer to the role well-being and happiness play in one’s life (Robinson 1989: 90) and on the other hand in the humanistic approach in psychology (Maslow 1954). PP’s aim is to be a complementary approach in psychology counterbalancing those that are solely pathology focused (Peterson 2006: 5). Instead of exclusively concentrating on mental illnesses and abnormalities, psychology should also occupy itself with more optimistic research subjects as, for example, with happiness, love, well-being, wisdom, or character strengths, so a more holistic understanding of human responses can be reached (Seligman & Csikszentmihalyi 2000: 13). To theorize how to flourish in life and what makes one’s life worth living, PP pays attention to three pillars: positive emotions at the subjective level, positive characteristics at the individual level, and positive institutions at the group level (Peterson 2006: 20). Positive emotions in the context of PP refer to the subjective experience of satisfaction, flow (see section 3.2.), sensual pleasures, joy, happiness, and well-being as well as optimism, faith, and hope. An individual’s positive traits, for instance, include courage, aesthetic sensibility, the capacity for love and its expression, interpersonal skills, the ability to forgive, high talent, wisdom, perseverance, originality, and future-mindedness. Nurturance, responsibility, altruism, moderation, tolerance, work ethic, and civility are investigated at the group level and represent ‘civic virtues’ (Seligman & Csikszentmihalyi 2000: 5). Over the last decades, a large number of scholars have advocated the application of PP in learning and in EFL learning specifically as this may not only offer a more holistic view but also provide

opportunities to positively impact the learning process (Ahmadi-Azad, Asadollahfam & Zoghi 2020: 2).

An increasing number of scholars such as Lantolf and Swain (2019: 522) and Chen et al. (2021: 17) emphasize that learning is indeed a highly emotional experience and that “both head and heart” are needed in educational settings (Cefai & Cavioni 2014: 160). Moreover, according to Mercer et al. (2019: 14), the well-being of learners and their emotional self-regulation are considered to be crucial for them to actively and successfully participate in society. Therefore, these two aspects are oftentimes incorporated in the teaching curriculum.

In Austria, emotional education is predominantly included in the curricula for younger students. For learners at the age of 6 to 10, for instance, the curriculum explicitly states that their education should include opportunities to develop emotional components of their personality (BMB: Lehrplan VS und SoS: 7). It is also stated that social, emotional, intellectual, and physical education are intricately connected and should be considered in the selection and weighting of the syllabus (BMB: Lehrplan VS und SoS: 14). Learners should, for example, acquire the necessary competence to manage and resolve emotions through the use of language, i.e., the expression of their own and others’ feelings, perceptions, and emotions (BMB: Lehrplan VS und SoS: 52). While these learning goals connected to emotional education are stated in the curriculum explicitly as overarching objectives, the curricula for older students rather incorporate them in certain subjects or subsections.

In Austrian lower-secondary schools, students should be enabled to utilize and expand their emotional capacities in the context of learning about language and communication, for example in the subject German according to the curricula (BMB: Lehrplan MS: 5; BMB: Lehrplan AHS: 11). Furthermore, in subjects such as biology, chemistry, music, and art, emotional competencies are explicitly included in the curricula’s learning aims (BMB: Lehrplan MS: 69-82; BMB: Lehrplan AHS: 88-104). In music class, learners should, for instance, improve their emotional intelligence and develop emotional as well as cognitive connections to various kinds of music (BMB: Lehrplan AHS: 101-102). Students attending upper-secondary classrooms are only required to engage with the topic of emotions in five school types. For instance, the curricula of the higher vocational schools for fashion, tourism, and economical studies aim to facilitate social, personal, communicative, and emotional competence across all subjects (BMB: Lehrplan HLM: 2; BMB: Lehrplan HLT: 2; BMB: Lehrplan HLW: 2).

Similar to the curricula in lower-secondary schools, emotional education is also integrated in specific subjects such as psychology and philosophy (BMB: Lehrplan AHS: 75; BMB: Lehrplan HLW: 64), ethics (BMB: Lehrplan AHS: 123), German (BMB: Lehrplan AHS: 125), chemistry (BMB: Lehrplan AHS: 185), computer science (BMB: Lehrplan AHS: 213), music (BMB: Lehrplan AHS: 215), art (BMB: Lehrplan AHS: 221-222), nutritional science (BMB: Lehrplan AHS: 236), communication design (BMB: Lehrplan HTL-Grafik: 6), and typography (BMB: Lehrplan HTL-Grafik: 22). The prominent incorporation of emotional aspects in the Austrian curriculum evident from the examples above constitutes another reason why emotions should be considered when it comes to investigating learning and teaching in the Austrian classroom scientifically.

Overall, it seems that Austrian students learn about emotions more generally and how to manage their own in early school years. Subsequently, there is a focus on applying learners' emotional competence to learning on a lower secondary level. Finally, in upper secondary, the curriculum highlights the application of emotions to broader contexts. The present research focus aligns with the emotional-learning aims in the curricula for lower-secondary grades. To gain a deeper understanding of the role emotions play in the learning process, researchers have conceptualized theoretical frameworks explaining the functions and implications of emotional experiences in the classroom. While Pekrun's control-value theory (Pekrun 2006; Pekrun & Perry 2014) and Fredrickson's broaden-and-build theory (Fredrickson 2001; Fredrickson & Joiner 2018) have been reviewed and empirically investigated extensively by scholars in the field, Shao et al. (2020) recently presented a synthesis of the two theories called the L2EPP model, which focuses on the functions and implications of emotions in second language acquisition (SLA). These three conceptualizations will be discussed in the following subchapters.

2.1. Control-value theory

The control-value theory (CVT) by Pekrun (2006) focuses specifically on achievement emotions, which comprise emotions "arising from studying, working, or participating in sports [...]" and which "relate to activities and outcomes that are typically judged according to competence-based standards of quality" (Pekrun 2019: 143). The CVT builds on Feldman Barrett and Russell's circumplex model of emotions from 1998 as well as earlier work by Elliot (2006) and primarily classifies emotions according to two

dimensions: valence and activation. While emotions may be positive (i.e., pleasant) or negative (i.e., unpleasant) with regard to their valence, they may also be identified as either activated or deactivated in physiological terms.¹ As can be observed in Figure 1, this leads to four main groups of emotions: (a) pleasant activated, (b) pleasant deactivated, (c) unpleasant deactivated, and (d) unpleasant activated emotional experiences.²

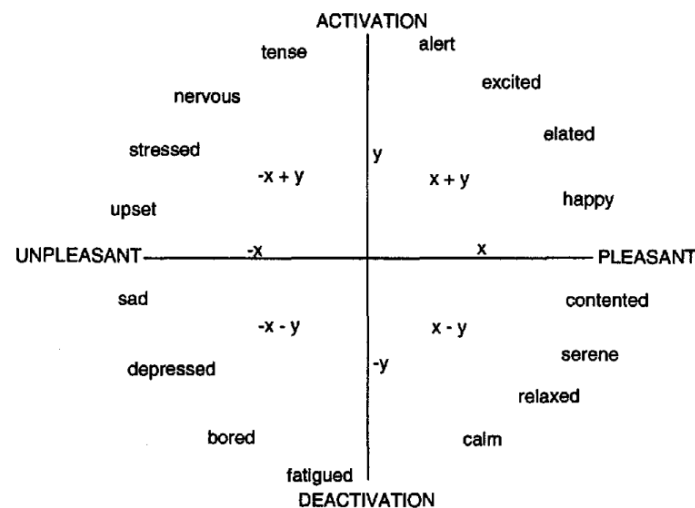


Figure 1. Circumplex model of emotions. The circumplex model of emotions by Feldman Barrett and Russell (1998: 970) illustrates the classification of emotional states according to their valence (x) and activation (y). Four groups of emotions can be identified: unpleasant activated ($-x+y$), unpleasant deactivated ($-x-y$), pleasant deactivated ($x-y$), and pleasant activated ($x+y$) emotions.

According to the circumplex model by Feldman Barrett and Russell (1998: 970) and the CVT (Pekrun 2006: 326), feeling relieved, calm, or relaxed, for instance, can be classified as positive deactivated emotional experiences while positive activated emotions include joy, excitement, and pride, among others. In the CVT and the model described above, another distinction is made between negative activated emotions such as anger, fear or anxiety and negative deactivated ones as for example exhaustion, boredom, or sadness.

In addition to activation and valence, Pekrun (2006: 317) adds the dimension of object focus to the CVT creating a three-dimensional taxonomy of achievement

¹ While Feldman Barrett and Russell's model (1998) does not distinguish between emotions, mood, or affect, the CVT follows the definition of achievement emotions. Both theories do not include the concept of gradience when it comes to emotions' valence or activation as the focus of the initial model was to illustrate the bipolarity of emotions which was then tested and confirmed in three individual studies.

² In recent publications in the context of the CVT and other emotion-related models the adjectives positive and negative are used predominantly instead of pleasant and unpleasant.

emotions. This third dimension introduces the distinction between activity emotions and outcome emotions. While enjoyment, relaxation, anger, and boredom can be classified as emotions linked to a certain activity, hope, hopelessness, or anxiety can be defined as prospective outcome emotions and pride, gratitude, contentment, shame, or disappointment as retrospective outcome emotions, respectively. Furthermore, joy or relief can be identified as either prospective or retrospective outcome emotions depending on the context (Pekrun 2019: 144). According to Pekrun and Linnenbrink-Garcia (2012: 262), it is equally important to consider the object focus of emotions in the research field of learning and not just look at the other two dimensions as this makes it possible to assess whether the emotions at hand are concerned with a certain academic task or are merely the results of learning. However, the object focus is not only disregarded in Pekrun's (2006) CVT hypotheses but also in the researcher's own later publications such as Pekrun et al. (2017), in which this third dimension is not even mentioned. A possible explanation may be that in empirical research relying on quantitative data it can be difficult to classify some emotions according to their object focus. For instance, when analyzing the experience of enjoyment and its causal relationships, it would be necessary to identify whether its influence stems from enjoying the task at hand or from a prospective outcome-related emotion.

The CVT and especially its theoretical assumptions regarding learning success have been investigated empirically multiple times. A longitudinal study by Pekrun et al. (2017: 1665) revealed that there was not only a correlational but also a causal relationship between emotions and achievement in learning. For instance, it was found that positive activated emotions positively influence learning, as they may facilitate deeper learning processes, promote intrinsic motivation and interest, focus the learners' attention to the task at hand, and protect their cognitive resources. Moreover, this group of emotions may have a positive influence on the use of learning strategies and achievement. That is, learners who experience positive activated emotions seem to use a greater number and variety of learning strategies (Pekrun & Linnenbrink-Garcia 2012: 259).

Whereas these types of emotions typically influence the learning process and its outcomes in a positive way, the opposite result was found regarding negative deactivated emotions. These emotions may have an impeding effect as they lead to a decrease in both intrinsic and extrinsic motivation, and impede learners' focus as well

as in-depth learning (Pekrun 2006: 326). It was found that the remaining two groups of emotions are more flexible regarding their influence on the learning process: On the one hand, negative activating emotions such as anxiety, anger or shame may induce irrelevant thoughts such as fear of failure and undermine intrinsic motivation, thereby limiting cognitive resources. On the other hand, these emotional experiences may also increase extrinsic motivation to avoid failure and may result in learners using stricter learning strategies such as rote memorization. Moreover, feeling relaxed or relieved, i.e., positive deactivated emotions, may reduce learners' short-term effort and attention levels while simultaneously improving long-term motivation (Pekrun 2019: 151). According to the longitudinal study by Pekrun et al. (2017: 1665), it can be said that test scores and grades may (a) negatively predict negative emotions and (b) positively predict positive emotions. The same effect could be observed vice versa as the investigated emotions also predicted learning outcomes.

These findings support the central hypothesis of the CVT which says that learning behavior is influenced by one's appraisal of (a) the value of the learning activities and their outcomes and (b) the subjective degree of control over these activities and outcomes. Moreover, these appraisals affect one's emotions, which in turn affect learning behaviors. The outcomes of one's learning behavior influence future appraisals and, thus, future emotions (Pekrun 2006: 317-318). According to Pekrun (2019: 146), for instance, learners may be more likely to experience frustration or anger when they feel the demands of a certain achievement activity cannot be met by their efforts, which may, consequently, decrease their motivation. Furthermore, students may feel enjoyment if they think that they will be able to complete a certain task and that the learning material is valuable, which leads to higher engagement. Therefore, another factor influencing emotions according to the CVT constitutes learners' subjective importance of achievement outcomes. If students experience high controllability, and are not invested in the achievement outcome, low anxiety is expected while the opposite may hold true for perceiving a course or class as important but not feeling competent enough to complete its tasks.

According to the CVT, emotions fulfill important functions in the learning process: they are influential factors when it comes to learners' (a) "cognitive resources enabling individuals to focus attention on achievement tasks; (b) interest and motivation to perform these tasks; and (c) use of learning strategies and self-regulation of learning" (Pekrun 2019: 150). Even though achievement emotions have received growing

attention by researchers, Pekrun (2019: 154) calls for their further investigation in the context of achievement as well as their implications for health and well-being in general. These implications are also considered in the broaden-and-build theory proposed by Barbara Fredrickson (2001), who focuses her research on the functions of positive emotions in particular.

2.2. Broaden-and-build theory

The insights gained from the CVT, and its empirical validations are highly similar to the central premises in Barbara Fredrickson's broaden-and-build theory of positive emotions (BBT). The BBT consists of two hypotheses, viz. (a) the broaden and (b) the build hypothesis, and it can be considered another theoretical framework in which affect and its relationships with, for instance, achievement are analyzed. Since 1998, Fredrickson's theory has been empirically researched and revised accordingly numerous times (especially in the past few years) and has remained a prevalent subject of discussion. When investigating emotions and their functions, the BBT is still considered a highly relevant concept and is, therefore, included in this thesis.

In her work, Fredrickson argues for a clear distinction between positive and negative emotions as each category can be associated with specific behavioral tendencies (Fredrickson 2001: 219-220): While negative emotions such as disgust, fear, or anger may produce acts of rejection, protective behaviors, or even the urge for destruction, positive emotions are proposed to lead to different responses explained below. Similarly to the notions that led to the development of PP, it is argued that effects of positive emotions such as "joy, interest, contentment, and love" should receive as much attention as those of negative affect (Fredrickson 1998: 300). Consequently, Fredrickson outlines the BBT as an innovative and inclusive model, which is illustrated in Figure 2. The BBT can be described in four steps (Fredrickson 2013: 15-16): In a first step, one's "usual styles of acting or thinking" (Fredrickson 2001: 220) are broadened briefly whenever positive emotions are experienced, and new activities, relationships, and creative ideas can be explored. If this broadening effect takes place repeatedly, enduring personal resources not only of physical and intellectual nature but also social skills are built in a second step. These, for instance, include cognitive skills, knowledge, resilience, and social support. In a third step, these resources stemming from the frequent experience of positive emotions may improve one's subjective well-being and health.

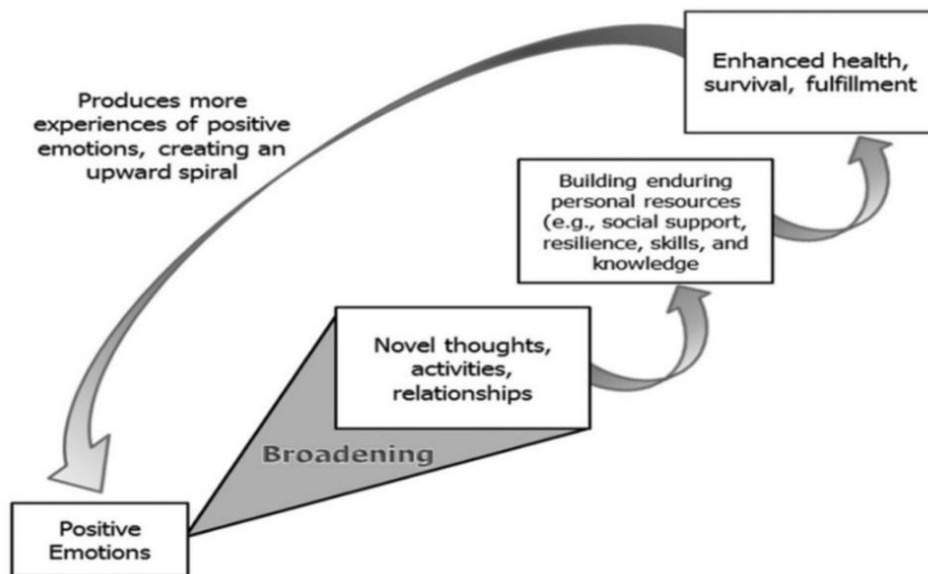


Figure 2. Broaden-and-build theory of positive emotions. According to the illustration by Fredrickson and Cohn (2008: 783), the experience of positive emotions has a broadening effect on one's thought-action repertoire, producing novel thoughts, activities, and relationships. These products subsequently build enduring personal resources, which in turn contribute to enhanced health, survival, and fulfillment. In a last step, an upward spiral is created as this experience leads to more experiences of positive emotions.

From a more evolutionary perspective, Fredrickson (2013: 15) adds that this build function of positive emotions stems from securing one's survival by building necessary resources over time. While negative emotions prompted instant responses such as fight or flight urges, positive emotions "carried adaptive significance for our human ancestors over longer timescales" (Fredrickson 2013: 15). As their thought and action repertoire was broadened, novel knowledge, skills, and alliances essential to surviving could be discovered. In a last step of the theory shown in Figure 2, experiencing a state of well-being, health, and survival evokes new positive emotions, which fuel the process once more. Therefore, the BBT may be interpreted in the form of an upward spiral (Isgett & Fredrickson 2015: 866). In a learning setting, for example, this could mean that a broader variety of learning strategies are accessible to learners who experience enjoyment or interest. If these positive emotions are evoked by, for instance, learning materials or teachers more frequently, learners may have internalized strategies that are uniquely beneficial to them, which may help them achieve higher results or perform better in specific tasks. Performing well in a certain class may in turn make learners feel fulfilled, which leads to further positive emotions. Mohammadipour et al. (2018: 93), for instance, found that learners who were engaged

and contributed to a higher extent showed a more frequent use of language learning strategies; these learners also stated that they experienced positive emotions in their English lessons.

Over the past two decades, the broaden as well as the build hypothesis of the BBT have been tested empirically numerous times: Findings from a study by Fredrickson and Branigan (2005: 326-327), for instance, support the hypothesis that participants' attention scope and patterns of thinking and acting may be broadened by positive emotions such as contentment and amusement, which were elicited through the medium of films. It was also found that anger, neutrality, and anxiety widened participants' thought-action repertoires, which were measured by means of a Twenty Statements Test, to a lesser extent than emotions of positive valence. Moreover, according to Fitzpatrick and Stalikas (2008: 139), the broadening effect can also be observed when an individual shows a greater variety of new ideas and behavior or reflects on and solves problems in a more effective way.

An earlier research project on the beneficial effects of positive affect by Fredrickson and Joiner (2002: 172-173) produced similar results: Not only a strong relation between positive emotions and attention levels was observed but participants also showed a broader use of coping strategies when their levels of positive emotions were higher. According to Fredrickson et al. (2000: 249), it can be argued that the regulation of the emergence of negative emotions and their successful management can be supported significantly by the presence of positive emotions. Tugade and Fredrickson (2004: 331) further explore this argument and conclude that experiencing positive emotions is closely connected to coping abilities such as efficiently handling situations evoking stress or anxiety and to successfully dealing with one's psychological and physiological suffering. The researchers state that the experience of positive emotions plays a significant role in resilient participants' ability to overcome negative emotions and to prevent subsequent health threats. For instance, emotions which have been shown to increase the risk of cardiovascular diseases, such as anger, hostility, or anxiety, may be reduced through the experience of positive emotions due to their health-promoting and regulatory qualities.

Building on Fredrickson's work, MacIntyre, Dewaele, and their colleagues (e.g., MacIntyre & Gregersen 2012; Dewaele & MacIntyre 2014; MacIntyre & Mercer 2014) were the first SLA researchers to focus on PP and the BBT in the early 2010s (Shao et al. 2020: 3). MacIntyre and Gregersen (2012: 200-201), for instance, emphasize that

students learning a language may benefit from the virtuous circle described by Fredrickson i.e., from positive affect in the classroom. It is pointed out that especially the effect of positive emotions on cognition, negative affect, interpersonal resources, and resilience are relevant in this field and advantageous for language learners. According to Shao et al. (2020: 3), the work of MacIntyre and his fellow scholars also brought new developments in the field such as the study of learner strengths including empathy, hardiness, or courage into the spotlight of L2 research. While the researchers' contributions highlight the relevance of PP and thus of the BBT in the field of language learning and teaching, they also commented on limitations and critical responses toward the two constructs.

Even though scholars such as Held (2004: 12) recognize empirical evidence for the positive effects of optimism and positivity on one's life expectancy and general health, one common concern addresses the oversimplification of PP's findings. Such oversimplifications, for instance, may include the impression that positive thinking alone could solve any problem; this may be offensive to people dealing with serious difficulties such as suffering from depression. In an earlier publication by Lazarus (2003: 96), it is, moreover, stated that PP tends to ignore positive aspects of negative affect as well as negative effects of positive emotions due to a choice of conceptualization and of measurements that are not sufficiently complex. Solutions to these objections were, for example, proposed by MacIntyre, Gregersen, and Mercer in publications from 2016 and 2019. MacIntyre, Gregersen, and Mercer (2019: 263) emphasize that in order to avoid these oversimplifications, which may be found in rather popular, non-scientific media, it is important to assess the applied theories of PP and its research in SLA in a way that is balanced in reference to context and participants. Furthermore, scholars state that a broader range of research methods needs to be used in order to account for measurement issues (MacIntyre, Gregersen & Mercer 2016: 377). According to Linley et al. (2006: 14), research in the field of PP can avoid these fallacies by rejecting the assumption that "a positive psychological position would ever be right for all of the people, all of the time" and by, instead, committing to critical reflection.

In 2018, Fredrickson and Joiner reflected on their own and their colleagues' research on the BBT and its hypotheses. They concluded that even though parts of this upward spiral induced by positive emotions had been investigated extensively, it is necessary to conduct further research in order to fully explain the effects of positive

emotions. For example, testing causal relationships more thoroughly, conducting controlled laboratory experiments, and using more recent and rigorous statistical analyses drawing on data from frequent repeated measures and larger sample sizes may prove to be valuable (Fredrickson & Joiner 2018: 198). The BBT has, therefore, been increasingly applied to practical fields, including SLA and foreign language (FL) acquisition. In this particular field, Shao et al. (2020) propose the L2EPP model, which combines the BBT and the CVT and applies these theories to the research area of language learning.

2.3. L2EPP model

The theoretical model of second language emotions and positive psychology (L2EPP) synthesizes research and theories from three disciplines relevant to language learning: education, language, and psychology. It aims (a) to draw attention to the research niche regarding the role of not only negative but also positive emotions in language acquisition, (b) to link essential findings to the field of SLA, and (c) to show opportunities to improve language-learning instruction (Shao et al. 2020: 2).

Similarly to the previously discussed theories, the L2EPP model highlights the necessity of integrating emotional components and PP into the study of language learning, which has been emphasized by a number of scholars, such as MacIntyre, Gregersen, and Mercer (2016: 374). Figure 3 shows how the L2EPP model interlinks different aspects that have been found to be relevant in the study of SLA with one another and, thereby, sets them into a system building on previous research (Shao et al. 2020: 6). In the L2EPP model, Shao et al. (2020: 6-9) further explain their systematic categorization of potential as well as previously investigated variables and support their claims with pre-existing literature and research findings summarized below. Simultaneously, it outlines possible relations between variables that can be investigated further and indicates where intervention research could take place. Examples for relevant variables are given in the model and categorized into four areas: institution, characteristic, emotion, and outcome.

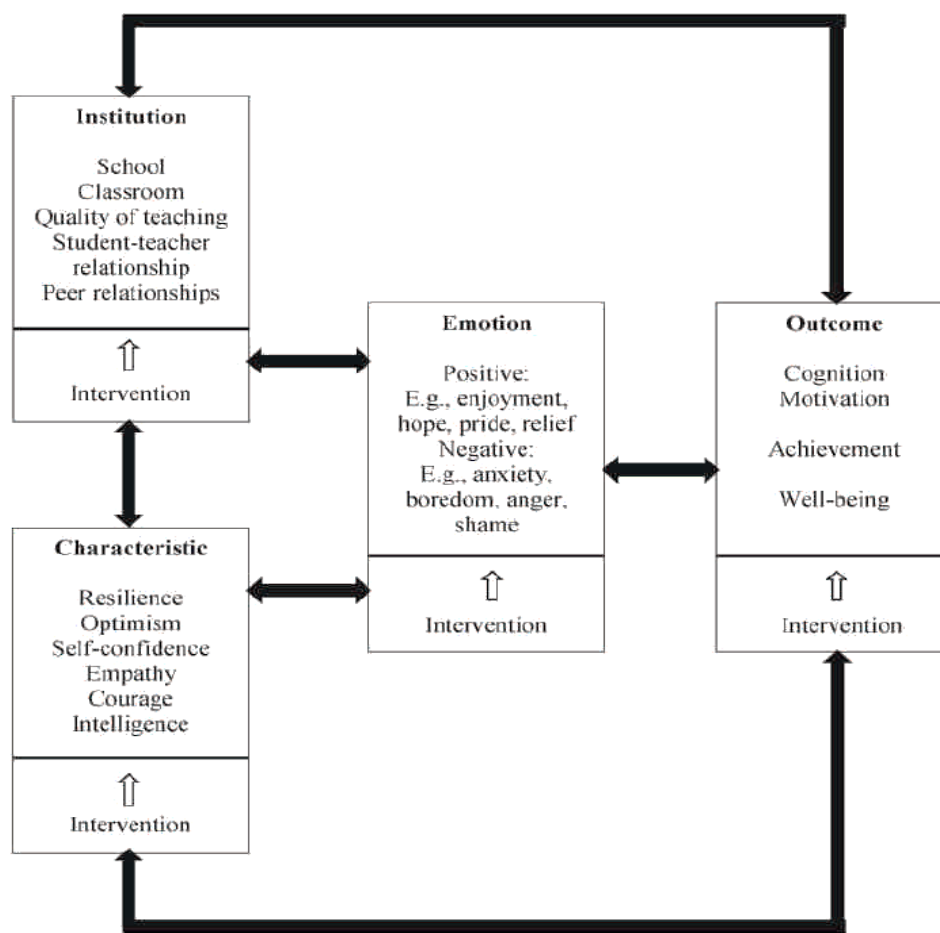


Figure 3. L2EPP model. The illustration by Shao et al. (2020: 6) outlines relevant aspects in SLA research and how they may be linked to other aspects according to previous research. These aspects include variables regarding institutions, learners' characteristics, emotions, and outcomes and are connected through arrows indicating their connection. In each category, the possibility to implement an intervention is included.

As can be seen in Figure 3, aspects subsumed under the field of *institution* include variables related to the context in which L2 learning may take place, such as the learners' school or classroom, the quality of teaching taking place in these classrooms, and students' relationships to their peers and teachers (Shao et al. 2020: 6). These factors have not received a great amount of attention in previous research although scholars such as Peterson (2006: 20) have already highlighted the beneficial influence positive environments may have on learners' characteristics and emotional experiences. Drawing on Pekrun's CVT, Shao et al. (2020: 7) suggest that institutional factors should not be overlooked when it comes to research as they may be in a distal relation with teachers' and learners' affect. An investigation by Lazarides and Buchholz (2019: 50) with German middle school students, for example, showed that learners' boredom and anxiety were negatively related to classroom management while teacher support positively correlated with classroom-level enjoyment. Moreover, findings by

Khajavy, MacIntyre, and Barabadi (2018: 619-620) suggest that causal relationships between institutional factors including classroom climate or student cohesiveness and students' enjoyment and anxiety can be found as well.

The categories *characteristic* and *emotion* are comprised of a number of variables, which have been investigated in the context of general education as well as SLA (Shao et al. 2020: 7-8). These, for instance, include resilience, self-confidence, or empathy in the area of learner characteristics and positive as well as negative emotions such as enjoyment or anxiety. As mentioned before, the L2EPP heavily builds on research related to the CVT and the BBT. This foundation is most evident in these categories which combine the two theories. According to Shao et al. (2020: 5), the CVT and the BBT both view the cultivation of positive emotions and the management of negative emotions as central factors related to learners' characteristics, psychological and physical health, cognitive resources, and learning environments. However, while the BBT predominantly discusses the role of positive emotions, the CVT also includes negative affect in its theoretical framework and research. Therefore, both theories are included in the L2EPP, so a more holistic view of affect in SLA investigations can be realized (Shao et al. 2020: 5). Moreover, this inclusion of the CVT in the L2EPP and, thus, in a language-learning research setting may be considered a relatively novel approach since the CVT is more frequently found in general education studies while the BBT has already been introduced to the domain of language acquisition a number of times as mentioned in the previous chapter.

Another category in the L2EPP model comprises variables relating to the *outcome* of learning. The term *outcome*, however, does not only refer to language performance as pointed out by Shao et al. (2020: 8). Instead, it is meant to also include aspects of learner cognition, motivation, and well-being, which have not received as much attention in SLA research as achievement has. Similarly to characteristic and emotion in this category, findings from the BBT and the CVT that have been discussed in the previous chapters are highly relevant to the L2EPP model. While positive emotions may, for example, lead learners to solve problems in a more creative way and support their attention and cognition levels (Fredrickson & Branigan 2005: 326-327), negative emotions such as anxiety or boredom may reduce cognition and attention (Pekrun & Perry 2014: 132). Learners' motivation has already been in the focus of previous scholarly discourse for quite some time, examples including the social-educational model by Gardner (1985) or the L2 motivational self-system by

Dörnyei (2005). However, only more recent studies include a deeper reflection of the relationship between motivation and learners' achievement emotions in their investigations: Research on motivation, emotions, and habits in an academic context conducted by Méndez-Aguado et al. (2020: 8), for example, shows positive relations between L2 motivation and positive emotions as well as negative correlations of motivation and negative emotions. According to Seligman et al. (2009: 294), achieving positive education in the sense of PP means to not only consider learner proficiency or other aspects of achievement but also their general well-being related to the learning process. This variable is included in the L2EPP model, so researchers no longer overlook other aspects of the term learning *outcome*.

As Figure 3 indicates, the four categories should not be seen as isolated areas of research but should be connected with each other in research designs so their correlations and causal relationships can be investigated further. Moreover, Shao et al. (2020: 9) highlight the importance of putting theory into practice and developing PP interventions which can positively impact both learners' well-being and language proficiency. An example for an intervention on the institutional level constitutes the implementation of a code of conduct in classrooms defining rules based on both formal regulations and PP assumptions to improve classroom environments (Gabryś-Barker 2016: 171). Moreover, learners' characteristics such as creativity or open-mindedness and their linguistic competence may be promoted by combining PP activities with a poetry project (Piasecka 2016: 88). In order to directly influence students' emotions, motivation and performance, Kossakowska-Pisarek (2016: 110) incorporated aspects of self-control into a vocabulary training project. Furthermore, the introduction of content-and-language-integrated-learning principles may improve outcomes related to learners' subjective well-being and language proficiency: As suggested by Mercer et al. (2018: 22), combining teaching of language skills with content in the FL classroom could be an opportunity to introduce students to topics related to PP such as positivity, gratitude, kindness, tolerance, or empathy in a meaningful way.

3. Emotions in foreign language learning

Most of the research on the topic of emotions in the FL classroom centers around two emotional constructs: foreign language classroom anxiety (FLCA) and foreign language enjoyment (FLE) (Botes, Dewaele & Greiff 2020: 282). According to scholars,

these two variables should be seen as language learners' left and right feet (Dewaele & MacIntyre 2016: 233-234) rather than as opposite ends of one emotional-state continuum (MacIntyre & Gregersen 2012: 197). Since FLCA and FLE are evoked from different but at-times overlapping sources (Botes, Dewaele & Greiff 2020: 283), the two emotions are usually negatively correlated in empirical studies (Dewaele & MacIntyre 2014: 248). However, it is important to note that FLCA and FLE may be experienced individually, simultaneously, or even not at all when acquiring a foreign language (Botes, Dewaele & Greiff 2020: 284). The conceptual and methodological development of FLCA and FLE research as well as findings from previous studies will be discussed in the following subsections.

3.1. Foreign language classroom anxiety

Investigating anxiety in the FL classroom has been in the focus of research for quite some time making it “the most widely studied emotion” in the field (MacIntyre 2017: 11). The research can be divided into three broad strands: the confounded approach, the specialized approach, and the current dynamic approach (MacIntyre 2017: 11). Early concepts regarding achievement- or exam-related anxiety were already defined in the late 1930s. During the confounded approach, researchers at first had too broad a definition of anxiety and did not consider which forms of anxiety affect language learners more specifically (MacIntyre 2017: 11-12). In the following decades, the concept of FL anxiety was developed further and became increasingly popular among researchers (Pekrun 2019: 142). Marking the beginning of the Specialized Approach (MacIntyre 2017: 14), Horwitz, Horwitz, and Cope (1986: 125) conceptually distinguished foreign language classroom anxiety (FLCA) from general anxiety: This specific form of anxiety can be defined as “a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom learning arising from the uniqueness of the language learning process” (Horwitz, Horwitz & Cope 1986: 128). In short, FLCA is considered “the worry and negative emotional reaction aroused when learning or using a second language” (MacIntyre 1999: 27). In a classroom setting, learners experiencing FLCA may for instance feel inadequate, may be afraid of failing, and may display emotional reactions in various forms such as being irritable or nervous. Although FLCA is frequently used synonymously with foreign language anxiety (FLA), the latter may also refer to the experience of apprehension or tension in an FL learning environment that is not restricted to a classroom. FLA may, for instance,

emerge when FL learners use the language in a real-life context or even when they only think about a similar situation (Horwitz 2017: 33). Moreover, FLA scales may also only focus on specific skill areas such as reading, listening, speaking, or writing (Dewaele & MacIntyre 2014: 240) while FLCA scales usually measure emotions in the classroom more holistically.

It was found that when using scales focusing on situations specifically encountered in FL learning, results proved to be more meaningful and consistent in comparison to other concepts related to anxiety such as test anxiety in general (Horwitz 2010: 154). The Attitude-Motivation Test Battery (AMTB) introduced by Gardner (1985: 177-184) can be considered the first measurement tool addressing anxiety specific to language learning. However, the role of motivation was more prominent at the time of the AMTB's introduction and, thus, FL anxiety and its implications were mostly overlooked. When measuring FLCA nowadays, researchers typically make use of or adapt items from Horwitz, Horwitz, and Cope's (1986: 129-130) Foreign language classroom anxiety scale (FLCAS) (see e.g., Botes, Dewaele & Greiff 2020; Resnik & Dewaele 2020; Dewaele & MacIntyre 2014). The FLCAS consists of 33 items and is regarded as a highly reliable research tool (Dewaele & MacIntyre 2014: 240). Oftentimes, eight key items are extracted from the original FLCAS, which according to MacIntyre (1992: 185) does not interfere with measurement reliability. The internal reliability of this condensed version of the FLCAS was verified by scholars multiple times and proved to be satisfactory with a Cronbach's alpha of 0.894 in Resnik and Dewaele's analysis (2020: 6) for instance. These eight items reflect (a) participants' lack of confidence (e.g., "I always feel that the other students speak the FL better than I do"), (b) their physical symptoms related to anxiety (e.g., "I can feel my heart pounding when I'm going to be called on in FL class"), and (c) their nervousness (e.g., "I get nervous and confused when I am speaking in my FL class" (Dewaele & MacIntyre 2014: 274))³.

FLCA can be regarded as one of the most extensively researched emotions in SLA (Botes, Dewaele & Greiff 2020: 281), and was predominantly investigated as a rather stable construct, i.e., one where FL learners transfer from one situation onto another (Horwitz 2010: 154). In recent years, however, there has also been an increasing interest in investigating anxiety as a dynamic rather than a solely stable property. This trend refers to the Dynamic Approach (MacIntyre 2017: 23) or also called

³ See appendix for the short version of the FLCAS.

the idiodynamic approach. According to Gregersen (2020: 68), language anxiety should be seen as dynamic since it correlates and stands in causal relationships with a number of constantly changing variables: These variables are, for instance, related to the individual learners' characteristics such as their personality, self-concept, motivation, or their willingness to communicate. Furthermore, linguistic variables including aptitude and language proficiency may influence or be influenced by language anxiety. Moreover, this emotion may mediate or be mediated by factors connected to the learning environment such as peer-group relationships and responses (Côté & Gaffney 2021: 105). Another argument supporting the dynamic nature of language anxiety is constituted by the fact that language anxiety and its supposed counterpart enjoyment may be experienced simultaneously (Gregersen 2020: 68). FLCA may also emerge when learners participate in activities they usually appreciate. In some cases, FLCA can be triggered by a small obstacle, which may lead to a chain reaction multiplying learners' anxiety. This phenomenon called the self-exacerbating syndrome starts with a small amount of anxiety. This experience leads the learners to worry that others might notice their emotional state, which in turn triggers more anxiety (Dewaele & Dewaele 2020: 48). Overall, FLCA can be investigated "as a trait, a state, as situation-specific, and as fluctuating on a moment-to-moment basis" (Gregersen 2020: 68).

In the idiodynamic strand of research, FLCA is examined over different time frames such as months, years, or even seconds (Dewaele & Dewaele 2020: 47). In their study, Gregersen, MacIntyre, and Meza (2014: 578-580), for example, observed their participants' heart rates and considered state language-anxiety self-ratings during a three-minute oral presentation. It was found that all participants experienced high levels of anxiety momentarily while most also spent time in the low anxiety zone. Therefore, it can be said that FLCA experiences may vary strongly from one point of time to another in the same learning context. Even though previous research on this negative activating emotion related to prospective outcomes (see section 2.1) has been extensive, FLCA remains a popular topic in SLA studies. One reason for this prevailing interest may be the fact that new developments including the introduction of foreign language enjoyment to the field have encouraged novel perspectives for investigations (Chen et al. 2021: 2).

3.2. Foreign language enjoyment

As a counterpart to FLCA, foreign language enjoyment (FLE) was brought into the spotlight of SLA research with the PP movement. It can be considered a positive activating emotion which is predominantly linked to activities (see section 2.1). Moreover, the FLE concept is based on the BBT (Li, Jiang & Dewaele 2018: 184) as the experience of enjoying a foreign language and its linked learning process may broaden one's interest and simultaneously build linguistic competence over time.

FLE and enjoyment are linked to the core emotion joy, which describes the experience of pleasant personal and interpersonal achievements (Reeve 2005: 316). This set of emotions should not be confused with the sole satisfaction of homeostatic needs, i.e., pleasure (Seligman & Csikszentmihalyi 2000: 12). Instead, FLE can be defined as a complex emotional state meeting psychological needs in FL learning and "capturing interacting dimensions of challenge and perceived ability" (Dewaele & MacIntyre 2016: 216). Seligman and Csikszentmihalyi (2000: 12) further stress that enjoyment in general goes beyond the limits of pleasure and instead may lead to more meaningful outcomes. Considering FLE, these outcomes may, for instance, refer to the acquisition of a foreign language (Resnik & Dewaele 2020: 2). In fact, FLE is considered one of the most frequently experienced positive emotions in the language learning process (Jiang & Dewaele 2019: 14). According to Botes, Dewaele and Greiff (2020: 282), FLE refers to "a positive disposition towards the FL learning process, towards peers, and towards teachers". This disposition can, thus, be divided into a private and a social dimension of FLE. Through means of principal component analysis, Resnik and Dewaele (2020: 2-3) confirmed this division and explained that while friendliness and support of teachers and peers are considered social aspects (i.e., interpersonal), the perception of fun and interest in the subject constitute factors related to the private dimension of FLE (i.e., personal).

Enjoyment is a highly important component in Csikszentmihalyi's (1996: 110) concept of flow: Experiencing flow describes an emotional state in which one's skills are aligned with one's challenges. When in a flow state, one shows a high degree of engagement and involvement, losing sense of time and self for the duration of an activity (Csikszentmihalyi 2008: 4). Enjoyment takes place when both (i) psychological needs are met and (ii) outcomes are of significant personal value (Dewaele & MacIntyre 2016: 217), and if these two criteria are fulfilled achieving a flow state is possible. Note that experiencing enjoyment also includes going beyond one's needs

and thereby achieving novel results that may even be unexpected according to Csikszentmihalyi (2008: 46). It is also stressed that tasks which are too challenging for students may inhibit flow experiences and evoke anxiety, boredom, or apathy in learners (Csikszentmihalyi 1996: 111). In fact, it can be said that being able to complete a task and to concentrate, setting clearly defined goals, and receiving impromptu feedback are factors closely related to experiencing enjoyment (Csikszentmihalyi 1996: 111-113). In a similar vein, Dewaele and MacIntyre (2014: 242) identify two main sources leading to daily FL enjoyment: getting closer to achieving a goal and building interpersonal relationships.

Since language learners' flow experiences may be highly beneficial to their linguistic development (Li, Jiang & Dewaele 2018: 184), enjoyment as a closely related construct may also considerably impact students' learning process and outcomes. When language learners discuss enjoyment, they usually refer to particular tasks, a whole learning session or a course overall. Consequently, knowing if learners enjoy certain tasks and courses should be seen as a crucial factor influencing the quality of teaching (Dewaele & MacIntyre 2014: 242).

In order to methodically collect data on learners' enjoyment in different contexts, a number of measuring instruments have been developed: The first scale strictly focusing on FLE was created by Dewaele and MacIntyre in 2014: This first version of the FLE scale (FLES)⁴ is based on the Interest/Enjoyment subscale by Ryan, Connell and Plant (1990). While seven items were drawn and adapted from this subscale, the social dimension of FLE was also considered in items relating to peers and teachers, group membership and the social environment in general (e.g., "The peers are nice", "We form a tight group", or "There is a good atmosphere" (Dewaele & MacIntyre 2014: 273)). Moreover, private-FLE aspects such as how FL mistakes are dealt with, learners' identity, and improvement in using the target language as well as their attitudes concerning FL learning (e.g., "Making errors is part of the learning process", "I feel as though I'm a different person during the FL class", "I learnt to express myself better in the FL", or "I've learned interesting things", (Dewaele & MacIntyre 2014: 273)) were added, totaling 21 items (Dewaele & MacIntyre 2014: 243). These items require participants to state their level of agreement on a 5-point Likert scale and, as stated before, comprise aspects related not only to enjoyment in foreign language learning but also to the experience of interest, fun, creativity, and pride in this context. The 21

⁴ See appendix for the 21-item version of the FLES.

statements in the FLES were phrased positively and in such a way that learners reflect on their past FL-class experiences globally rather than focusing on particular tasks or lessons (Dewaele & MacIntyre 2014: 243).

As Dewaele and MacIntyre's (2014) instrument has been used frequently in FLE research, it was translated into different languages and shortened numerous times to improve understanding and usability. In 2016, for instance, Dewaele and MacIntyre (2016: 221-223) used a principal component analysis and discovered that five out of the 21 items could be subsumed under the dimension FLE-Private while eight items reflected the dimension FLE-Social (i.e., 13 items in total). More recently, Dewaele and Dewaele (2020: 54-56) further shortened the FLE-scale to ten items in total. Also other research designs in the last few years included adapted versions of the FLE scale: ten items reflecting the dimensions FLE-Private and FLE-Social were for instance used to investigate FLE of learners in Saudi Arabia (Dewaele & Alfawzan 2018: 33), Spain (Dewaele, Franco-Magdalena & Saito 2019: 417), and China (Jiang & Dewaele 2019: 16). The original FLE scale was also shortened to eleven items and translated into Chinese by scholars such as Li, Jiang and Dewaele (2018: 186). In this study with Chinese high-school students, three FLE dimensions were identified: FLE-Teacher, FLE-Private and FLE-Atmosphere (Li, Jiang & Dewaele 2018: 191). Moreover, Resnik and Dewaele (2020: 6) extracted twelve items from the original FLE scale and adapted them to elicit information about social and private enjoyment related to first-language learning as well as foreign language learning. Both developed scales showed high internal statistical consistency.

Language learning can be viewed as a complex system which is influenced by interacting variables such as social, cognitive, and affective factors (de Bot, Lowie & Verspoor 2007: 18-19). Therefore, similar to individuals' FLCA, their FLE should not be seen as static but may change rapidly, for instance, depending on the task topic (Elahi Shirvan & Talebzadeh 2018: 34). A large number of researchers have adapted their research designs in a way that captures this dynamic nature of FLE, applying an idiodynamic approach. Zhang, Liu, and Lee (2021: 4), for instance, used the Anion Variable Tester software in order to capture learners' dynamic FLE during collaborations: After participants rated their FLE multiple times while watching a video of their group working together, the software analyzed their FLE levels and visualized them in the form of graphs. Furthermore, FLE scales have been used in combination with other instruments such as journals, interviews or enjoymeters (Elahi Shirvan,

Taherian & Yazdanmehr 2021: 5). Mixing methods in their approaches this way allows researchers to highlight the dynamic and individual components of FLE at multiple points in time even further (Zhang, Liu & Lee 2021: 2).

3.3. Previous studies on FLCA and FLE

SLA researchers have empirically investigated FLCA and FLE extensively over the past few years. Following Dewaele and MacIntyre's (2014: 242) recommendation, many choose study designs targeting positive and negative emotions simultaneously instead of focusing on only one valency dimension. Most of these studies affirm that FLCA and FLE negatively correlate on a significant level (Dewaele & MacIntyre 2014: 248; Botes, Dewaele & Greiff 2020: 288; Resnik & Dewaele 2020: 7). Nevertheless, the two FL emotions should be seen as two separate entities since their sources, effects, and correlating variables may differ (Chen et al. 2021: 1-2).

For example, learners' cultural and regional backgrounds may influence the two emotions in different ways: Chinese participants, for instance, scored higher on FLCA (Jiang & Dewaele 2019: 21) and lower on positive emotions in comparison to learners from other countries (Li 2020: 254). Moreover, participants from North America reported the lowest FLCA scores and significantly higher FLE levels than learners from Asia, Europe, or Arabic countries (Dewaele & MacIntyre 2014: 254). In other cases, however, similar FLCA and FLE mean scores have been obtained across learners of different cultural or regional backgrounds (Dewaele et al. 2022: 258). The different results in the literature highlight that further research specific to the FLCA and FLE of Austrian learners may be required to investigate whether the findings from other regional contexts are comparable, which is a major aim of the project at hand.

Further aspects that are frequently investigated by researchers and linked to the two FL emotions include (a) learner-characteristic variables such as gender, age, years of instruction, or multilingualism, (b) learning-outcome variables such as proficiency, or self-perceived proficiency, and (c) variables linked to institutions such as the classroom environment, peer-relationships, and the teacher. The following three subsections will explore these variables in more detail.

3.3.1. Findings related to learner characteristics

Both FLCA and FLE are linked to a number of learner-specific variables. One of these aspects includes gender differences in the experience of emotions: It was found that

female participants in general reported significantly higher levels of both FLCA and FLE (Dewaele & MacIntyre 2014: 254). These differences in gender were also confirmed for participants aged 12 to 13 and 16 to 18 (Dewaele & Dewaele 2017: 18-19). In another investigation by Dewaele et al. (2016: 59), only a small effect size was observed, as females participating in the study scored higher for both positive and negative emotions than males. However, while a number of studies found that gender-effects on FLCA and FLE are of significance, a recent publication by Piniel and Zólyomi (2022: 194) claims otherwise. In their meta-analysis of 48 FLCA-research projects, it is revealed that differences related to participants' gender are not statistically significant after all and that the relationship between FLCA and gender is not influenced by target language, regional contexts, university study major, or age. Since Piniel and Zólyomi's (2022) study refers to FLCA exclusively, deeper analyses regarding FLE may be necessary to further investigate possible gender-related differences. Ultimately, it should be noted that gender-linked differences generally stem from students' surrounding culture and education that caters to girls and boys in different ways (Ur 2012: 272). Therefore, possible effects should not simply be attributed to biological distinctions.

Learners' age constitutes another variable frequently examined in combination with FL emotions. Analyzing their data, Dewaele and MacIntyre (2014: 253) report that participants' FLE scores increased steadily from a pre-teen age to their thirties apart from a slight dip observed for those in their teenage years. Furthermore, FLE levels peaked with participants in their forties and then flattened out. Findings also showed that teenagers had significantly higher scores of FLCA than those in other age groups while pre-teens scored lower than participants aged 13 to 29 (Dewaele & MacIntyre 2014: 253). When exploring the link between age, FLCA, and FLE of teenage learners more closely, a pseudo-longitudinal study showed that no significant difference between FLCA mean scores of 12-to-13-year-olds, 14-to-15-year-olds, and 16-to-18-year-olds was observable whereas FLE scores were highest for the third group and lowest for the second (Dewaele & Dewaele 2017: 17). It should be noted that "the causes of FLE and FLCA are highly dynamic and change over time" (Dewaele & Dewaele 2020: 51). Therefore, analyses concerning causal correlations between the two FL emotions and independent variables may be fruitful as they may suggest further differences between age groups. For example, Dewaele and Dewaele (2017: 20) investigate which socio-biographical and psychological aspects might play a role when

it comes to learners' emotions: For those learners aged 12 to 13, relative standing in the peer group was moderately predictive of FLE while already acquired FL knowledge predicted FLCA with a moderate effect size. 14-to-15-year-olds' FLE was positively linked to their attitude towards the FL as well as towards the teacher, to the number of acquired languages, and negatively to teacher predictability. These variables predicted 44.5% of FLE's variance, i.e., showed large effect sizes. Furthermore, relative standing and FL knowledge were predictors of FLCA with medium effect sizes in this age group. It was also observed that 16-to-18-year-olds' FLE was solely predicted by the learners' attitude towards the teacher explaining 44.5% of variance whereas relative standing and teacher predictability predicted FLCA with a medium effect size (Dewaele & Dewaele 2017: 17-18).

When it comes to learner-related variables and their link to FL emotions, the educational level of respondents is oftentimes considered in analyses as well. Contrary to expectations, findings for age and length of instruction are not identical: The onset of acquisition has, for instance, been linked to FLCA scores (Dewaele 2010: 175): Learners with a later start presented higher levels of FLCA than their peers, which may even lead to differences in the same age group. Moreover, comparing learners' FL emotions at different educational levels, Dewaele and MacIntyre (2014: 252-253) found an increase in FLE from a mid-high school to a PhD level that was slight but steady. Furthermore, FLE group scores were significantly lower for mid-high schoolers than for those with a BA, MA, and PhD; however, there were no further significant FLE differences found between the groups. In the context of FLCA, scores rose to a non-significant extent from mid-high school to high school and to BAs before a significant decrease could be observed, and both the MA and the PhD group showed lower FLCA levels than participants in the BA group (Dewaele & MacIntyre 2014: 252-253). In a later study, Dewaele and MacIntyre (2016: 262) further highlight these findings and conclude that learners who were more advanced in their education show lower scores of FLCA and higher levels of FLE. As Ur (2012: 258) points out, "[a]dults are usually learning voluntarily, have chosen the course themselves, and have a clear purpose in learning". Therefore, it should be noted that emotional accounts of learners who are still in their years of compulsory education and of those who have chosen to keep studying an FL afterwards might differ to a great extent. Differences in the extent of emotional experience, for instance, have been found when zooming in on a BA level, where learners in their first years reported more emotional experiences connected to

FL learning in general than those in later years (Piniel & Albert 2018: 141). Consequently, considering participants' learning context should be a priority in order to compare different learner groups in a meaningful way.

Another aspect that has been connected to FLE and FLCA concerns learners' level of multilingualism, viz. how many and which other languages they know as well as their proficiency in these languages. For instance, anxiety when learning an FL is usually lower the more languages learners have acquired previously, especially when the target language is part of a known linguistic family, i.e., when there is a shorter typological distance to languages already existing in the learner's repertoire (Dewaele 2010: 64). Dewaele and MacIntyre (2014: 249) also found that multilingual participants scored lower on FLCA and reported higher levels of FLE. In the same study, those who currently studied more FLs reached higher levels of FLE while FLCA was not impacted by this variable as extensively. Furthermore, FLCA was more strongly impacted by the general number of languages known than by other aspects of multilingualism, such as FLs studied and mastery thereof (Dewaele & MacIntyre 2014: 249-250). In a recent study, these findings could be replicated: In addition to a significant correlation between multilingualism and FLA as well as FLE, respectively, it was discovered that the two variables multilingualism and self-perceived FL proficiency significantly interacted in their influence on FLA but not on FLE (Botes, Dewaele & Greiff 2020: 290). Moreover, the extent of multilingualism's influence on FL emotions is closely linked to the learners' proficiency of the target language. According to Dewaele (2007: 404), learners who know three or four languages experience higher levels of self-confidence and perceive themselves as more proficient, which leads them to be better communicators. In fact, the study showed that multilinguals that were advanced FL learners experienced lower anxiety levels than other participants. According to Dewaele (2010: 105), multilingualism can "serve as a crutch" for learners that are intermediate learners of the target language and reduce their anxiety levels. However, only minimal effects were found for those with a lower or higher level of proficiency. Investigating anxiety patterns of pentalinguals, Dewaele (2010: 186) further identified a significant and linear increase from learners' first language to their fifth. These findings suggest an interaction effect of multilingualism and learners' level of proficiency in the FL (Botes, Dewaele & Greiff 2020: 285). Although multilingualism and its effect on FL emotions have not received as much attention as other variables

in the past (Botes, Dewaele & Greiff 2020: 284), several empirical findings show promise and should be investigated further in future research projects.

3.3.2. Findings related to learning outcomes

Learners' success in acquiring a second language or an FL may in part be ascribed to unique differences on an emotional level (Côté & Gaffney 2021: 105). In fact, FLE and FLCA have been linked to a number of outcome-related variables such as FL achievement, and proficiency: In a study of British high school students, not only a negative correlation between FLE and FLA was identified, but there was also a significant positive effect of participants' achievement concerning their last FL tests on FLE as well as a negative impact on FLCA, respectively (Dewaele et al. 2018: 683-684). Moreover, results from Li, Dewaele, and Jiang (2020: 504) show that FL achievement negatively correlates with FLCA and positively correlates with FLE. These findings support Dewaele and MacIntyre's (2014: 250-251) claim that learners with higher achievement levels score higher on FLE and lower on FLCA than those with lower achievement levels. Investigating Japanese students' FL emotions in relation to their oral proficiency, Saito et al. (2018: 729-732) report that FLCA negatively affected long-term language achievement, while FLE was identified as a positive predictor of short-term and long-term achievement. Exploring the role of FLE more closely, Jin and Zhang (2021: 958-959) discovered that Chinese high school students' FL mid-term scores were directly influenced by their enjoyment of FL learning, while teacher support and support of peers only affected their achievement indirectly. Moreover, FLE was identified as a more reliable predictor of test results and proficiency scores than FLCA (Dewaele & Alfawzan 2018: 41).

In many studies investigating FL emotions and their relations to outcomes, participants are asked to rate their achievement themselves instead of performing a task or taking a test to assess their language proficiency. These ratings could also be empirically linked to FLE and FLCA in many instances: Dewaele and MacIntyre (2014: 249; 2016: 262), for instance, report correlations between FLE, FLCA, and self-perceived proficiency. In further studies, it was found that this variable not only correlates with the two FL emotions on a significant level (Botes, Dewaele & Greiff 2020: 290) but is also predicted by them (Li, Dewaele & Jiang 2020: 503). According to Li, Dewaele, and Jiang (2020: 503), learners with low FLCA and high FLE levels may be more confident and thus assess themselves as more proficient. Moreover,

learners who identify as more advanced in their study of an FL report higher levels of FLE and lower levels of FLCA (Botes, Dewaele & Greiff 2020: 298). This idea was also supported by Dewaele and MacIntyre (2014: 252), who report that those participants who rated their relative standing in their peer group as above average also scored higher on FLE and lower on FLCA. These complex relations between proficiency and FL emotions can be compared to the process of mastering an instrument (Botes, Dewaele & Greiff 2020: 298): As it is challenging to play the violin at a beginner level, one may encounter a myriad of unpleasant emotional states and anxiety trying to produce music. However, the more advanced one becomes, the more enjoyable is the experience of playing the violin.

3.3.3. Findings related to institution

The FL learning experience is “an emotional place” (Pekrun & Linnenbrink-Garcia 2014: 1) that is highly influenced by its environment and context, including course materials, peers, and the teacher (Pan & Zhang 2021: 4). Therefore, a rising number of research projects focus on variables related to the institutions in which learning takes place and how these factors interact with FL emotions: The extent of FLE and FLCA can be predicted by the classroom environment (Li, Huang & Li 2021: 7; Pan & Zhang 2021: 18). In fact, participants who perceived their classroom atmosphere as positive reported lower anxiety and higher enjoyment levels than their peers. Moreover, Jiang and Dewaele’s claim (2019: 20) that especially FLE is closely connected to peer and teacher characteristics and less to self-related variables has been affirmed: FLE was indeed found to be more context-dependent (Pan & Zhang 2021: 18), while FLCA was only affected by classroom environment in the early stages of FL learning (Li, Huang & Li 2021: 8). This smaller effect of classroom atmosphere on FLCA may be explained by FLCA’s general conceptualization as being more closely related to internal factors such as individual performance on exams than external ones (Jiang & Dewaele 2019: 20). Nevertheless, scholars suggest that FLCA stemming from an intense classroom atmosphere may be eased by teachers and peers whom the learner perceives as supportive and friendly (Pan & Zhang 2021: 18).

Studies investigating institutional factors oftentimes include a focus on what role peers play when it comes to FL learners’ emotions. Analyzing qualitative data, Dewaele & MacIntyre (2014: 264), for example, found that the dynamic nature of learners’ FL emotions may not only stem from the current language activity they are engaged in but

also from their peers' comments. Furthermore, participants in the study stated that speaking in front of their classmates frequently induced anxiety or enjoyment in them. Similar findings have been reported by Elahi Shirvan and Taherian (2021: 45), who state that FLCA and FLE scores are unpredictable over time because the two FL emotions are highly sensitive to feedback, i.e., to the reactions and judgements learners, for instance, receive from their peers. Moreover, Pan and Zhang's research (2021: 17) suggests that personality factors such as extraversion may play a profound role in learners' experience of FLCA and FLE. This personality trait also correlated with participants' opinion of their peers. As a mediating variable, extraversion may impact the individual perception of their classmates, which in turn influences learners' FL emotions once more.

The teacher has also been found to influence the classroom environment and thereby learners' emotions. This makes the role of the FL instructor another variable frequently examined when it comes to institutional factors. FLCA is closely tied to the teacher since receiving teacher feedback or explanations is a necessity of instructed learning environments. It can, however, be anxiety provoking for some learners and may even set off a butterfly effect, in which learners' worry of being noticed as anxious can lead to even more FLCA (Elahi Shirvan & Taherian 2021: 45). Empirical investigations have, in fact, linked teacher comments to changes in FLE and FLCA (Dewaele & MacIntyre 2014: 264-265; Li, Huang & Li 2021: 7). Moreover, FLE has been reported to be more closely related to teacher factors, such as predictability or the teachers' FL use, than FLCA (Dewaele et al. 2018: 692, Pan & Zhang 2021: 18).

These findings have led scholars to highlight the importance of facilitating a positive working environment for learners and to simultaneously create a safe space for language learning (Dewaele & MacIntyre 2014: 264-265). In a positive classroom environment, learners are able to actively engage in and enjoy language learning while having to take only a minimum of risks of being vulnerable in front of their peers and teachers. Using the metaphor of Gregersen, MacIntyre, and Olson (2017: 110) that FLCA and FLE are two inner wolves fighting for attention, Elahi Shirvan and Taherian (2021: 44) conclude that the way learners experience their peers' and teachers' reactions or behavior feeds one of the two wolves that drive or hinder FL learning, respectively.

4. Methodology

The research project at hand explores the FL emotions of Austrian lower-secondary EFL students by examining the results of a quantitative cross-sectional study. The following subsection focuses on the research questions and hypotheses.

4.1. Research questions and hypotheses

While research on students' FL emotions has been quite extensive, the study at hand investigates learners in the Austrian lower-secondary EFL classroom specifically. To my knowledge, this context appears to have not received any attention in contrast to upper-secondary or higher educational levels in other countries (see section 3.3). In the present research project, these specific learners' levels of FLE and FLCA, the two FL emotions' potential correlations with other variables, and possible group differences in mean scores were explored to further the knowledge in this particular field. More specifically, this thesis focuses on the following three main research questions and tests the given hypotheses derived from previous findings (cf. Dewaele & MacIntyre 2014; Saito et al. 2018; Botes, Dewaele & Greiff 2020; Jin & Zhang 2021; Dewaele et al. 2022):

RQ1: What can be observed about FLE and FLCA in Austrian lower-secondary EFL learners?

H1A: Higher levels of FLE than FLCA are experienced by Austrian lower-secondary EFL learners.

H1B: There is a negative correlation between learners' FLE and FLCA scores.

RQ2: To what extent are these two FL emotions linked to Austrian lower-secondary EFL learners' characteristics and learning outcomes?

H2A: A positive correlation between FLCA and learners' age as well as academic year can be identified whereas the emotion negatively correlates with their achievement, self-perceived proficiency, and degree of multilingualism.

H2B: A positive correlation between FLE and learners' achievement, self-perceived proficiency, and degree of multilingualism can be identified whereas the emotion negatively correlates with the participants' age and academic year.

RQ3: To what extent do learner groups in the Austrian lower-secondary EFL context differ when it comes to their FL emotions?

H3A: Female participants reach higher scores of FLCA and FLE than their male peers.

H3B: More advanced learners (i.e., fourth-year students) report lower FLCA and higher FLE levels than beginners (i.e., first-year students).

H3C: Students at the performance level *Standard-AHS* score higher on FLE and lower on FLCA than their peers at the performance level *Standard*.

- H_{3D}: Students who report that they currently learn languages in addition to German and English report higher levels of FLE and lower levels of FLCA.
- H_{3E}: Learners who assess their English skills as better than their peers' reach higher FLE and lower FLCA scores than their colleagues.

4.2. Data collection

In order to obtain the necessary data quickly and efficiently, a questionnaire was compiled, translated to German, and piloted before its distribution. The instrument was administered in German since all students participating in the study had a knowledge of German while some of them had only had English lessons for less than a year, i.e., their English proficiency was potentially limited.

In May 2021, the questionnaire was piloted with 8 Austrian first-year EFL students from a different school, representing the youngest participants in the research project. Their responses were not included in the final sample. However, the questionnaire was adapted according to these students' uncertainties and questions. In a next step, the teachers of the participants were consulted to account for age appropriateness of the vocabulary used and for the possibly limited German proficiency of some students. Their comments were considered and integrated into the questionnaire to ensure that the students would understand and be able to answer the questions more easily.

In June 2021, after having received written consent of their parents and permission of the school's principal, the researcher distributed the final version of the questionnaire to 144 participants. The participating students were once more asked for their individual consent before filling out the survey in their school's computer room. Using an online tool for the questionnaire ensures anonymity of students and teachers (Dörnyei 2007: 121). This may support honesty and consequently lessen potentially biased assessments aimed at pleasing teachers.

4.3. Instrument

The online questionnaire consisting of six web pages was generated using the program SoSci Survey (Leiner 2019): On the first page, a short introductory text was included to explain the aims of the study at hand and highlight the students' anonymity.

On the second page, participants were asked to rate 21 statements concerning their experience of FLE and FLCA⁵. To keep the questionnaire as short as possible,

⁵ See appendix for the FLES (21-item version), the FLCAS (8-item version), and the complete questionnaire used in this study.

the short version of the FLCAS was translated and used for the negative FL emotion. The eight extracted FLCA items have been frequently included in field-specific studies (e.g., Dewaele & MacIntyre 2014; Resnik & Dewaele 2020) and reflect learners' lack of confidence, their nervousness, as well as their physical symptoms of anxiety. Furthermore, analyses showed satisfactory internal reliability of these FLCA items. For the positive FL emotion, 13 statements were extracted and translated from the FLES instead of including it in its entirety. Ten of these FLE items reflected the enjoyment of FL learners on a private level (items 3, 4, 9, 11, and 12 of the 21-item version), on a social level (items 7, 10, 14, 15, 16, 17, 18, and 21), or regarding the atmosphere of the FL class (items 7, 10, 18, and 21). For these ten items, analyses revealed high internal consistency reliability in previous studies (e.g., Dewaele & Dewaele 2020) despite the omission of items 1, 2, 5, 6, 8, 13, 15, 16, 17, 19, and 20 from the original 21-item version of the FLES. Nevertheless, items 15, 16, and 17 were kept in the questionnaire to include the aspect *FLE-Teacher*. To improve participants' comprehension, the symbols + and – were added to the possible ratings of the FLCA and FLE statements. Consequently, a five-point Likert scale was used ranging from *Stimme gar nicht zu* (--), i.e., *strongly disagree*, to *Stimme vollkommen zu* (++), i.e., *strongly agree*. An unrelated example was given for illustrative purposes.

On the third page, participants were asked to state their school class, age, and gender. Moreover, they had to indicate whether they were proficient in any further languages apart from German and English. If they affirmed this question, a fourth page asked them which additional languages they knew. Furthermore, they were asked to indicate whether they could understand these languages in a written or spoken form, whether they could speak and write in the languages, and whether they were currently studying the languages. Once more, an example was given. On the fifth page, participants reported their self-perceived English proficiency using school grades and were asked whether they would assess their English skills as better than, worse than, or similar to their colleagues' proficiency. Moreover, students had to report their last English exam grades, their winter-term grades and whether they were currently assessed in the performance level *Standard* or *Standard-AHS*. As a third option to this question, they could state that they were currently being assessed according to the curriculum of special needs schools. First-year students were not asked this question. However, all students could choose the answer *Teilgenommen* (i.e., *Participated*),

when asked for their last test and term grades. This grade is typically given to students assessed according to the special-needs curriculum.

The last question was open-ended and allowed the participants to add their own remarks. On the sixth page, a short completion note was included thanking students for their participation. On average, it took participants about 20 minutes to complete the survey. This can be regarded an appropriate length for questionnaires according to Dörnyei (2007: 110).

4.4. Participants

The sample included questionnaire responses from 144 EFL learners. The average age was 13.27 years (SD = 1.53). As shown in Table 1, descriptive analyses revealed that 41% of the participants were 13 or 14 years old ($n = 59$), while 35.4% were aged 10 to 12 ($n = 51$) and 15- to 16-year-olds made up 23.6% ($n = 34$) of the responses.

Table 1. Age and gender of participants.

In Table 1, information about participants' age and gender is provided. The table shows the number of learners (n) and their respective percentage (%).

	<i>n</i>	%
AGE		
10 – 12 YEARS	51	35.4
13 – 14 YEARS	59	41
15 – 16 YEARS	34	23.6
GENDER		
MALE	92	63.9
FEMALE	48	33.3
OTHER	4	2.8

Table 1 further shows that male participants ($n = 92$, 63.9%) outnumbered female ones ($n = 48$, 33.3%)⁶. This predominance of male learners was also identified in Dewaele and Dewaele's (2017) sample, which focused on a similar age group. In contrast, other research projects such as Dewaele and MacIntyre (2014) and Resnik and Dewaele (2020) reported a majority of female participants; these studies also included older and more advanced learners on an upper-secondary or even tertiary level in their samples.

⁶ 4 participants (2.8%) chose neither female nor male when disclosing their gender.

The students participating in the study at hand were enrolled in an Austrian middle school ('Mittelschule'), i.e., a lower-secondary school in Vienna. In this four-year school, lessons are generally conducted in German except for English classes, in which students learn English as a foreign language (EFL) from their first year onwards. Therefore, participants shared a knowledge of German and at least a basic understanding of English since the data collection took place in the second term of the Austrian school year. Out of the 144 students, only 14 (9.7%) did not learn or have receptive or productive skills in any other language, whereas the remaining 130 (90.3%) stated otherwise. In fact, 42.4 percent ($n = 61$) of this highly multilingual sample reported that they knew one language in addition to German and English; 34.7 percent ($n = 50$) indicated that they were quadrilinguals, and 13.2 percent ($n = 19$) even named three or four additional languages from their linguistic repertoire. In Table 2 below, these and further findings concerning the learners' forms of multilingualism are illustrated:

Table 2. Multilingualism of participants.

Table 2 includes the number of participants ($N = 144$) stating they know or do not know languages in addition to German and English. For each additional language, 0 to 4, the number of cases (n) and their percentage (%) are given. Furthermore, the columns illustrate students' responses not only regarding their reading, listening, speaking, and writing skills in the mentioned languages but also whether they were currently learning or studying further languages.

ADDITIONAL LANGUAGES	MENTIONED		READING SKILLS		LISTENING SKILLS		SPEAKING SKILLS		WRITING SKILLS		LEARNING / STUDYING	
	n	%	n	%	n	%	n	%	n	%	n	%
0	14	9.7	45	31.3	35	24.3	30	20.8	65	45.1	100	69.4
1	61	42.4	76	52.8	69	47.9	81	56.3	65	45.1	31	21.5
2	50	34.7	20	13.9	33	22.9	27	18.8	11	7.6	10	6.9
3	12	8.3	2	1.4	6	4.2	6	4.2	1	.7	3	2.1
4	7	4.9	1	.7	1	.7	-	-	2	1.4	-	-

When asked how many of these additional languages they understood in a written form, 31.3 percent of the participants reported to possess no reading skills in other languages. That means, two thirds of the students ($n = 99$, 68.8%) stated they could read in at least one more language. An even larger number of participants reported to have listening skills in additional languages as opposed to only about a quarter of the group ($n = 35$, 24.3%) who did not. Simultaneously, 75.7 percent of students ($n = 109$)

claimed they could understand at least one additional language in a spoken form apart from German and English. Speaking skills were indicated even more frequently⁷: The majority of learners ($n = 81$, 56.3%) stated that they were able to speak one further language whereas only about 20 percent added no oral proficiency. The same number of participants ($n = 65$, 45.1%) reported to possess writing skills in one additional language or in none. However, most participants ($n = 79$, 54.9%) could write in at least one further language. When asked about whether they were currently learning or studying another language, almost 70 percent of the participants ($n = 100$, 69.4%) negated, and only less than one third ($n = 44$, 30.6%) affirmed. While in total 37 different languages (see appendix) were mentioned by participants, the most common languages were Turkish ($n = 36$, 25%), Arabic ($n = 32$, 22.2%), and Bosnian, Croatian, Montenegrin, or Serbian ($n = 21$, 14.6%).

When it comes to students' academic years, it was found that 30 participants (20.8%) attended the two first-year classes; 38 students (26.4%) were in the second grade of middle school, i.e. class 2A or 2B; 33 learners (22.9%) stated they were in the third grade, and the 43 fourth-year students in classes 4A, 4B, or 4C made up almost one third of the sample (29.8%). Table 3 provides further information regarding the learners and teachers in the investigated EFL classes.

Table 3. Investigated EFL classes.

Table 3 lists the number of participating students from the nine investigated EFL classes as well as their relative percentages ($N = 144$). Information on the English teacher teams in the four academic years is given.

	1 ST YEAR ($n = 30$)		2 ND YEAR ($n = 38$)		3 RD YEAR ($n = 33$)		4 TH YEAR ($n = 43$)		
	1A	1B	2A	2B	3A	3B	4A	4B	4C
<i>n</i>	16	14	16	22	15	18	15	16	12
%	11.1	9.7	11.1	15.3	10.4	12.5	10.4	11.1	8.3
TEACHERS	A + B		C + D		A + B		E + F		

As shown in Table 3, the highest number of students participating in the study at hand were from class 2B ($n = 22$, 15.3%), while the lowest number of learners was from class 4C ($n = 12$, 8.3%). In the nine EFL classes, the same textbook series was used

⁷ It is unclear why a large number of students indicated that they possess speaking but not listening skills in further languages.

throughout the four academic years, and in all English lessons there were two teachers present: The teacher team consisting of *Teacher A* and *Teacher B* taught English in classes 1A, 1B, 3A, and 3B. Furthermore, 2A and 2B's English teachers were *Teacher C* and *Teacher D*, while *Teacher E* and *Teacher F* were the EFL instructors in the three fourth-year classrooms 4A, 4B, and 4C.

From the second year onwards, learners in Austrian middle schools are assessed according to the performance levels *Standard* or *Standard-AHS* when it comes to their test and course grades in English, Math as well as German. While the former level requires students to perform more basic tasks, the latter includes tasks with a higher degree of difficulty, i.e., learners on this performance level generally have to be more proficient. However, the classes are heterogenous, i.e., students are not divided into performance-level groups. In both performance levels, the same five school grades *Sehr gut*, *Gut*, *Befriedigend*, *Genügend*, and *Nicht genügend* can be achieved with an added statement of the student's performance level. These grades can be compared to the school grades *A* to *F*, respectively. In the specific middle school of the participants, students with special cognitive needs such as learning disabilities or other impairments are integrated in the same classrooms but are assessed according to the curriculum of special needs schools. In the study at hand, all 30 first-year students were assessed according to the curriculum of Austrian middle schools. From the 114 participants in second- to fourth-year classes, the majority of learners, i.e. 72 students ($N_1 = 114$, 63.2%), were on the performance level *Standard* and 37 participants ($N_1 = 114$, 32.5%) on *Standard-AHS* while only 5 ($N_1 = 114$, 4.4%) were assessed with regards to the special-needs curriculum. In the full sample ($N = 144$), these 5 students made up only about 3.5 percent of participants. This group would require a larger sample size to be statistically assessable. Therefore, no mean-value differences and correlations regarding this learner group could be investigated. It is also important to note that these students are assessed differently and have additional teachers to support them. This means that the special-needs students cannot be grouped together with the other participants. However, this paper includes a short qualitative analysis of this specific learner group in section 5.2.2.

4.5. Data analysis

The obtained data was transferred to IBM's (2021) Statistical Package for Social Sciences (SPSS 28), in which all required statistical analyses were performed. Data

from the pre-test and piloting phase as well as incomplete data sets were excluded. As mentioned in the previous section, the data from the five participants assessed according to the special-needs curriculum were also not included in the statistical analysis but analyzed separately in a qualitative manner (see section 5.2.2). Values regarding term and exam grades were recoded so that the best grades reflect the highest values and vice-versa. In order to calculate mean values correctly, FLCA items 3 (transl. 'I don't worry about making mistakes in English class.') and 4 (transl. 'I feel confident when I speak in English class.') of the questionnaire also had to be reverse-coded due to their phrasing. Average scores were calculated for FLCA, FLE, and their respective subdomains. As shown in Table 4, an analysis of the scales used in the present study indicated good inter-item reliability estimates for most aspects.

Table 4. Reliability of FL-emotion scales.

Table 4 shows the reliability estimates of *Global FLCA*, *Global FLE*, and these emotions' subdimensions *Lack of confidence*, *Nervousness*, *FLE-Private*, *FLE-Social*, *FLE-Teacher*, and *FLE-Atmosphere*. The number of items and Cronbach's alpha are included for each aspect. *Physical Symptoms* (FLCA) is excluded because it comprises only one questionnaire item.

	NUMBER OF ITEMS	CRONBACH'S α
GLOBAL FLCA	8	.72
LACK OF CONFIDENCE	4	.46
NERVOUSNESS	3	.78
GLOBAL FLE	13	.85
FLE-PRIVATE	5	.77
FLE-SOCIAL	8	.77
FLE-TEACHER	3	.81
FLE-ATMOSPHERE	4	.6

Global FLCA of participants was determined by calculating the mean value of all eight included FLCA items (see appendix). For the subdomain *Lack of confidence*, the FLCA items 1, 3, 4, and 8 were used, and for *Nervousness* 5, 6, and 7 were included in the calculations. In order to calculate mean values regarding global FLE, all 13 FLE items were used. The subdomains of FLE investigated in this study included *FLE-Private* (FLE items 1, 2, 5, 7, and 9) and *FLE-Social* (items 3, 4, 6, 8, 10, 11, 12, and 13). The latter is divided into *FLE-Teacher* (items 4, 8, and 13) and *FLE-Atmosphere* (3, 6, 11, and 12), which were also included in the analysis. Almost all scales reached a Cronbach's alpha exceeding 0.7 and approaching 0.8, which is the range recommended by Dörnyei and Taguchi (2009: 94-95) in second-language research.

Only *Lack of confidence* and *FLE-Atmosphere* did not meet this acceptability criterion, as the two subdomains' scales showed a Cronbach's alpha of 0.6 or lower. Therefore, any significant findings regarding these two aspects should be viewed critically and analyzed carefully in the research project at hand.

In order to answer the research questions of the present study, a number of statistical tests were executed, including paired and independent-samples *t*-tests, Pearson product-moment correlations, and one-way ANOVAs combined with Tukey's post-hoc tests. Furthermore, Spearman's rank correlations, Kruskal-Wallis tests, and Mann-Whitney *U*-tests were performed to account for non-parametric ordinal variables, such as term grades. Finally, the open-ended question was answered by 19 participants. Their predominantly short responses were manually analyzed by means of qualitative-content analysis.

5. Results

In the following subsections, results from the analyses of the quantitative and qualitative data will be presented.

5.1. Quantitative analyses

Table 5 illustrates mean value calculations regarding learners FL emotions. Average scores of FLE and its subdomains ranged from 3.63 to 4.03.

Table 5. Mean values of FL emotions and subdomains.

In Table 5, the average scores (*M*) and corresponding standard deviation (*SD*) of FLCA, FLE, and their respective subdomains are listed. The mean value of *Physical symptoms* is also included and refers to FLCA item 2 of the questionnaire.

	MEAN VALUE (<i>M</i>)	STANDARD DEVIATION (<i>SD</i>)
GLOBAL FLCA	2.68	0.85
LACK OF CONFIDENCE	2.72	0.87
PHYSICAL SYMPTOMS	2.59	1.51
NERVOUSNESS	2.67	1.23
GLOBAL FLE	3.77	0.72
FLE-PRIVATE	3.82	0.84
FLE-SOCIAL	3.74	0.76
FLE-TEACHER	4.03	1.01
FLE-ATMOSPHERE	3.63	0.83

They were higher than those of FLCA and its corresponding aspects, ranging from 2.59 to 2.72, in the investigated sample. Standard deviation values ranged from .72 (*Global FLE*) to 1.51 (*Physical symptoms* related to FLCA). The minimum scores of all variables listed above was 1, and their maximum scores were 5, spanning over the entire scale range except for *Global FLCA* with a maximum of 4.75. Figure 4 allows for a closer analysis of the distribution of the global FLE and FLCA scores.

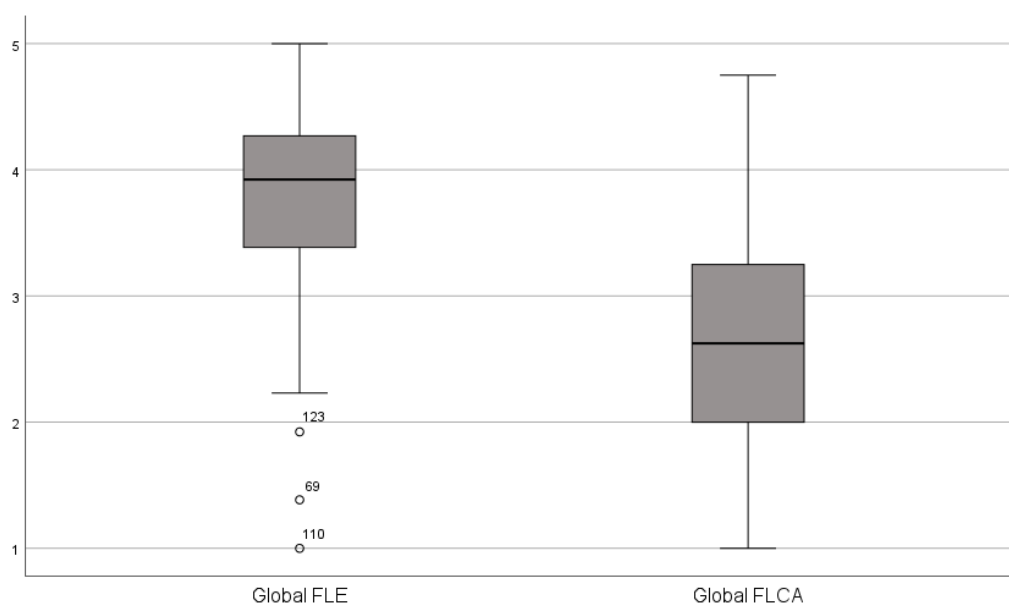


Figure 4. Boxplot: Comparing global FLE and FLCA mean scores. This figure illustrates the distribution of global FLE and FLCA values. According to the scales used in the study at hand, these scores could range from 1 to 5.

The boxplots in Figure 4 suggest that only three outliers reported a global FLE score below 2 and that global FLCA scores showed a greater variability than FLE values. Furthermore, the interquartile range of *Global FLE* is smaller, which indicates that average scores in this section are distributed more tightly around the median than those of *Global FLCA*.

5.1.1. Differences and relations between FL emotions

A paired *t*-test comparing global FLCA and FLE showed that there was a significant difference in mean values ($t(138) = 11.16, p = <.001$). It was found that participants reported more FLE ($M = 3.77 \pm 0.72$) than FLCA ($M = 2.68 \pm 0.85$). Furthermore, Cohen's *d* (2013: 25-26) suggests a strong effect size (Cohen's $d = .95$)⁸.

⁸ According to Cohen (2013: 25-26), a *d* value of .2 can be considered a small effect size, .5 a medium effect size, and .8 a large effect size, respectively.

In Table 6, results of Pearson product-moment correlations between the two emotions as well as all their respective subdomains are illustrated. The table shows a significant positive correlation between *Global FLE* and all four of its subdomains. Simultaneously, *Global FLCA* significantly correlated with *Lack of confidence* and *Nervousness*, which are both subdomains of FLCA.

Table 6. Correlation matrix of FL emotions and subdomains.

Table 6 shows the relationships between global FLCA and FLE as well as the two emotions' subdimensions. For each aspect, its Pearson correlation coefficient (r) is given, and significance is indicated with * ($p < .05$) or ** ($p < .01$).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) GLOBAL FLCA	-	.80**	.83**	-.07	-.14	-.01	.09	-.15
(2) LACK OF CONFIDENCE	.80**	-	.38**	-.27**	-.28**	-.22**	-.07	-.31**
(3) NERVOUSNESS	.83**	.38**	-	.12	.04	.15	.2*	.03
(4) GLOBAL FLE	-.07	-.27**	.12	-	.87**	.94**	.77**	.86**
(5) FLE-PRIVATE	-.14	-.28**	.04	.87**	-	.65**	.48**	.64**
(6) FLE-SOCIAL	-.01	-.22**	.15	.94**	.65**	-	.86**	.88**
(7) FLE-TEACHER	.09	-.07	.2*	.77**	.48**	.86**	-	.57**
(8) FLE-ATMOSPHERE	-.15	-.31**	.03	.86**	.64**	.88**	.57**	-

A weak non-significant correlation between *Global FLCA* and *Global FLE* scores was found ($r = -0.07$, $p = .405$) in the present study. When analyzing the relations of the two emotions on their subdomain levels, one can find that the FLCA dimension *Lack of Confidence* negatively correlates with *Global FLE* ($r = -0.27$), *FLE-Private* ($r = -0.28$), *FLE-Social* ($r = -0.22$), and *FLE-Atmosphere* ($r = -0.31$) on a small to medium but highly significant level ($p < .01$). Furthermore, *Nervousness*, a subdomain of FLCA, shares a small but significant positive correlation with the dimension *FLE-Teacher* ($r = 0.2$, $p = .019$).

To account for the ordinal nature of the FLCA variable *Physical symptoms*, Spearman's rank correlation coefficients were calculated: This dimension also positively correlated with *Global FLCA* ($r_s = 0.61$), *Lack of confidence* ($r_s = 0.34$), and *Nervousness* ($r_s = 0.39$) on a highly significant level ($p < .01$). However, no significant correlations between *Physical symptoms* and *Global FLE* or its related subdomains were found.

5.1.2. FL emotions and learner characteristics

In order to analyze FLE's and FLCA's relations to learner characteristics, further Pearson product-moment correlations were performed. Its results can be found in Table 7.

Table 7. Correlation matrix of FL emotions and learner characteristics.

In Table 7, Pearson correlation coefficients (r) of FL emotion scores and variables related to participants' characteristics are indicated. These variables include learners' age, academic year, and their degree of multilingualism. Significant correlations are marked with * ($p < .05$) or ** ($p < .01$).

	AGE	ACADEMIC YEAR	LANGUAGES MENTIONED	READING SKILLS	LISTENING SKILLS	SPEAKING SKILLS	WRITING SKILLS	LEARNING / STUDYING
GLOBAL FLCA	-.17*	-.19*	.11	.05	.07	.09	> -.01	.1
LACK OF CONFIDENCE	-.11	-.12	.03	-.03	-.03	-.01	-.06	.03
NERVOUSNESS	-.19*	-.2*	.11	.07	.11	.13	.06	.08
GLOBAL FLE	-.09	-.19*	.14	.13	.09	.08	.02	> -.01
FLE-PRIVATE	-.05	-.13	.18*	.12	.13	.15	.07	.04
FLE-SOCIAL	-.1	-.21*	.1	.12	.06	.02	-.02	-.03
FLE-TEACHER	-.17*	-.25**	.15	.11	.07	.01	.01	.03
FLE-ATMOSPHERE	-.02	-.14	.04	.11	.03	.02	-.03	-.07

Significant but small negative correlations between learners' age and *Global FLCA* ($r = -0.17$, $p = .044$), *Nervousness* ($r = -0.19$, $p = .029$), and *FLE-Teacher* scores ($r = -0.17$, $p = .043$) could be identified in the analysis. Simultaneously, the academic year participants were currently attending was also negatively correlated to the three aspects *Global FLCA* ($r = -0.19$, $p = .026$), *Nervousness* ($r = -0.2$, $p = .016$), and *FLE-Teacher* ($r = -0.25$, $p = .003$) on a significant level. Furthermore, *Global FLE* ($r = -0.19$, $p = .022$) and *FLE-Social* ($r = -0.21$, $p = .012$) were significantly related to learners' academic year. Participants' degree of multilingualism was not connected to their FL emotions except for one FLE dimension: A small positive correlation between *FLE-Private* and the number of additional languages learners mentioned to be skilled at was found ($r = 0.18$, $p = .039$).

Spearman's rank correlation coefficients further revealed that two aspects of multilingualism were also connected to an FLCA subdomain: *Physical symptoms* significantly correlated with the number of mentioned languages and with the number

of languages that participants were currently learning or studying. A small effect size was found in both instances ($r_s = 0.19$, $p = .026$). Learners' age and academic year were not linked to their *Physical symptoms* scores.

5.1.3. FL emotions and self-assessment

Further possible correlations of the FL emotions and learning outcomes were investigated: Considered variables included self-perceived proficiency and learners' relative standing in the peer group, both of which have been frequently used to quantify learning results in previous studies. Table 8 illustrates findings regarding the participants' self-assessment in the research project at hand.

Table 8. Correlation matrix of FL emotions, self-perceived proficiency, and relative standing.

Table 8 shows Spearman's rank correlation coefficients (r_s) of FL emotion scores and participants' self-perceived proficiency or relative standing in their peer group, respectively. The more proficient learners assessed themselves, the higher their scores of self-perceived proficiency and relative standing. Significance is indicated with * ($p < .05$) or ** ($p < .01$).

	SELF-PERCEIVED PROFICIENCY	RELATIVE STANDING
GLOBAL FLCA	-.41**	-.37**
LACK OF CONFIDENCE	-.39**	-.36**
PHYSICAL SYMPTOMS	-.15	-.14
NERVOUSNESS	-.29**	-.26**
GLOBAL FLE	.31**	.2*
FLE-PRIVATE	.4**	.24**
FLE-SOCIAL	.2*	.14
FLE-TEACHER	.06	.09
FLE-ATMOSPHERE	.34**	.21*

As can be observed in Table 8, another series of Spearman's rank correlation calculations showed that most of the investigated FL emotions' dimensions were closely connected to self-perceived proficiency and relative standing:

Participants' self-rated proficiency was significantly related to both FLCA and FLE: Negative correlations with *Global FLCA* ($r_s = -0.41$), *Lack of confidence* ($r_s = -0.39$), and *Nervousness* ($r_s = -0.29$) were identified. These relations were highly significant ($p < .001$) and showed medium effect sizes. Another small negative correlation with *Physical symptoms* was found; however, it was not significant ($r_s = -0.15$, $p = .078$). Indicating positive correlations of medium effect sizes, relations to *Global FLE* ($r_s = 0.31$), *FLE-Private* ($r_s = 0.4$), and *FLE-Atmosphere* ($r_s = 0.34$) were

highly significant ($p = < .001$). Furthermore, self-perceived proficiency also showed a small but significant correlation with *FLE-Social* ($r_s = 0.2$, $p = .021$), whereas *FLE-Teacher* did not correlate to a significant extent.

Similar findings were identified for learners' reported relative standing in the peer group: Negative correlations of medium effect sizes with *Global FLCA* ($r = -0.37$), *Lack of confidence* ($r = -0.36$), and *Nervousness* ($r = -0.26$), but not with *Physical symptoms* were found. Relative standing was not as closely related to *Global FLE* ($r = 0.2$, $p = .017$) as the latter was to self-perceived proficiency. Furthermore, relative standing was positively correlated to *FLE-Private* ($r = 0.24$, $p = .005$) and *FLE-Atmosphere* ($r = 0.21$, $p = .013$), but not to *FLE-Social* or *FLE-Teacher* on a significant level.

5.1.4. FL emotions and achievement

Table 9 shows relations between FL emotions and variables related to learning outcomes. Since different assessment formats are used in the groups, results are reported separately for learners in their first year ($n = 30$), for students assessed according to the performance level *Standard* ($n = 72$), and for those on the *Standard-AHS* level ($n = 37$).

Table 9. Correlation matrix of FL emotions and learning outcomes.

In Table 9, Spearman's rank correlation coefficients (r_s) for FL emotion scores and learners' term as well as exam grades are listed. The table shows results of the three groups: *First year students* ($n = 30$), learners currently assigned to the performance level *Standard* ($n = 72$), and those on the *Standard-AHS* level ($n = 37$). The higher the learners' reported achievement, the higher were the scores of the variables *Term grade* and *Exam grade*. Significant correlations are marked with * ($p < .05$) or ** ($p < .01$).

	1 ST YEAR (N = 30)		STANDARD (N = 72)		STANDARD-AHS (N = 37)	
	TERM GRADE	EXAM GRADE	TERM GRADE	EXAM GRADE	TERM GRADE	EXAM GRADE
GLOBAL FLCA	.06	-.02	-.19	-.28*	-.21	-.01
LACK OF CONFIDENCE	-.13	-.18	-.03	-.13	-.33*	-.15
PHYSICAL SYMPTOMS	.06	.02	.01	-.16	-.27	.14
NERVOUSNESS	.28	.27	-.25*	-.28*	-.04	.04
GLOBAL FLE	.47**	.48**	.05	.01	.24	.34*
FLE-PRIVATE	.51**	.49**	.24*	.19	.14	.33*
FLE-SOCIAL	.39*	.41*	-.06	-.07	.29	.3
FLE-TEACHER	.2	.3	-.12	-.15	.35*	.36*
FLE-ATMOSPHERE	.4*	.42*	.07	-.02	.3	.28

For each of these three groups, the Spearman's rank correlation coefficients of FL emotions and term grades as well as exam grades, respectively are provided in Table 9: Term and exam grades of first-year learners in the sample ($n = 30$) were not significantly related to FLCA or its subdomains. When it comes to the positive FL emotion investigated in the present study, however, significant positive correlations of medium to strong effect sizes between *Global FLE* and first-year students' last term grades ($r_s = 0.47, p = .009$) as well as exam grades ($r_s = 0.48, p = .007$) were identified. Results for the dimension *FLE-Private* were even stronger with positive correlation coefficients (r_s) of 0.51 ($p = .004$) for term grades and of 0.49 ($p = .006$) for first-years' exam grades. Further significant findings include positive correlations with *FLE-Social* (term grades: $r_s = 0.39, p = .031$; exam grades: $r_s = 0.41, p = .023$) and *FLE-Atmosphere* (term grades: $r_s = 0.4, p = .028$; exam grades: $r_s = 0.42, p = .021$) but not with *FLE-Teacher*.

With regard to the students assessed at the performance level *Standard* ($n = 72$), findings show a significant negative correlation of medium effect size between *Global FLCA* and their last exam scores ($r_s = -0.28, p = .016$) but not learners' term grades. Furthermore, *Nervousness* negatively correlated both with term ($r_s = -0.25, p = .034$) and exam grades ($r_s = -0.28, p = .017$) in this student group. Simultaneously, no significant correlations were identified for FLE except for a small-to-medium-sized positive correlation of *FLE-Private* and term grades ($r_s = 0.24, p = .042$).

Slightly different results were found concerning learners at the performance level *Standard-AHS* ($n = 37$): In this group, term grades negatively correlated with *Lack of confidence* ($r_s = -0.33, p = .049$) and positively correlated with *FLE-Teacher* ($r_s = 0.35, p = .033$). Both correlations were significant and of medium effect size. There was no significant correlation between exam grades and FLCA. However, this achievement related variable positively correlated with *Global FLE* ($r_s = 0.34, p = .042$) as well as *FLE-Private* ($r_s = 0.33, p = .046$), and *FLE-Teacher* ($r_s = 0.36, p = .031$). These three Spearman's correlation coefficients were significant and of medium effect size.

5.1.5. Differences regarding gender

A series of independent-samples *t*-tests showed no significant differences in mean values of global FLCA or FLE scores between male ($n = 89$) and female participants ($n = 46$). Only one aspect of FLE reached significance: Female learners ($M = 3.83 \pm 0.67$) reported higher levels of *FLE-Atmosphere* ($t(116.92) = 2.23, p = .027$) than their

male colleagues ($M = 3.53 \pm 0.9$). Furthermore, a small effect size is indicated for this dimension of FLE (Cohen's $d = .37$). Further analyses suggest non-significant trends of *Global FLE* ($t(120.64) = 1.94, p = .055$, Cohen's $d = .32$) and *FLE-Private* ($t(118.35) = 1.91, p = .058$, Cohen's $d = .31$): In both instances, male students (*Global FLE*: $M = 3.7 \pm 0.79$; *FLE-Private*: $M = 3.76 \pm 0.9$) reached lower scores than female participants (*Global FLE*: $M = 3.93 \pm 0.55$; *FLE-Private*: $M = 4.02 \pm 0.66$). A Mann-Whitney U -test revealed no significant differences in medians of FLCA's *Physical symptoms* ($U = 1889.5, p = .449$) between boys (median = 2) and girls (median = 3).

5.1.6. Differences regarding academic years

Mean-value differences between learner groups at different stages of their academic progress were analyzed. Table 10 lists mean values of FLCA, FLE, and the two emotions' respective dimensions according to learners' academic year. In order to compare mean values and identify potential effects of participants' academic year on FL emotions, one-way ANOVAs and Tukey post-hoc tests were performed. There were no significant differences between learners in academic-year groups regarding the FLCA dimensions *Lack of confidence* and *Physical symptoms*. Due to the latter concepts' ordinal nature, a Kruskal-Wallis test was performed instead of a one-way ANOVA. For the other FL-emotion dimensions, however, analyses showed a number of significant results, which were marked in Table 10 using *.

A statistically significant difference in *Global FLCA* between learners in different academic years was found ($F(3, 135) = 5.23, p = .002$). Its effect size was medium (Cohen's $f = 0.34$)⁹. Furthermore, a Tukey post-hoc analysis showed a significant difference between *Global FLCA* scores of second year to third year learners ($p = .002$, 95%-CI [0.2, 1.24]) and second year to fourth year students ($p = .008$, 95%-CI [0.12, 1.09]). In fact, participants in their second year ($M = 3.12 \pm 0.9$) had significantly higher mean values of FLCA than those in their third ($M = 2.4 \pm 0.77$) or fourth academic year ($M = 2.51 \pm 0.86$).

Another one-way ANOVA revealed that there was a medium and statistically significant difference in *Nervousness* between learners in different academic years ($F(3, 135) = 5.1, p = .002$, Cohen's $f = 0.34$). Tukey's HSD test found that second-year

⁹ Cohen's f can be classified into small ($f = .10$), medium ($f = .25$), or large effect sizes ($f = .40$) according to Cohen (2013: 285-287).

students significantly differed from third- ($p = .004$, 95%-CI [0.25, 1.76]) and fourth-years ($p = .007$, 95%-CI [0.19, 1.59]) regarding their *Nervousness* mean scores.

Table 10. Mean values of FL emotions according to academic years.

Table 10 shows the mean scores (M) and standard deviation (SD) for both FL emotions and their dimensions. Values were calculated and included in the table for learners in each of the four academic years, i.e., first year ($n = 30$), second year ($n = 34$), third year ($n = 32$), and fourth year ($n = 43$). * indicates that a one-way ANOVA revealed significant results for this aspect.

	1 ST YEAR ($n = 30$)		2 ND YEAR ($n = 34$)		3 RD YEAR ($n = 32$)		4 TH YEAR ($n = 43$)	
	M	SD	M	SD	M	SD	M	SD
GLOBAL FLCA*	2.73	0.65	3.12	0.9	2.4	0.77	2.51	0.86
LACK OF CONFIDENCE	2.76	0.76	3	0.92	2.5	0.78	2.62	0.94
PHYSICAL SYMPTOMS	2.5	1.61	3.09	1.62	2.34	1.43.	2.44	1.37
NERVOUSNESS*	2.78	1.14	3.28	1.33	2.28	1.19	2.4	1.06
GLOBAL FLE*	4.17	0.58	3.51	0.74	3.87	0.72	3.62	0.68
FLE-PRIVATE*	4.27	0.64	3.49	0.84	3.75	0.94	3.81	0.76
FLE-SOCIAL*	4.1	0.61	3.53	0.8	3.95	0.74	3.5	0.71
FLE-TEACHER*	4.43	0.88	3.96	1.13	4.31	0.97	3.6	0.89
FLE-ATMOSPHERE*	4.03	0.62	3.37	0.84	3.88	0.79	3.38	0.83

Similarly to *Global FLCA*, average scores of *Nervousness* were higher for those in their second year ($M = 3.28 \pm 1.33$) than those in year three ($M = 2.28 \pm 1.19$) and four ($M = 2.4 \pm 1.06$), as indicated in Table 10.

For the positive-emotion variable *Global FLE*, further highly significant differences could be shown in a one-way ANOVA ($F(3, 135) = 5.99$, $p = < .001$), which were of medium to large effect size (Cohen's $f = 0.37$). Learners in their first year reported significantly higher *Global FLE* mean scores of 4.17 (± 0.58) than their colleagues in the second ($p = .001$, 95%-CI [0.21, 1.1]) or fourth academic year ($p = .005$, 95%-CI [0.13, 0.97]), who reported mean scores of 3.51 (± 0.74) and 3.62 (± 0.68), respectively.

Testing effects of academic year on *FLE-Private*, a one-way ANOVA showed differences between at least two groups. These differences were significant and of medium effect size ($F(3, 135) = 5.14$, $p = .002$, Cohen's $f = 0.34$). Tukey's HSD test for multiple comparisons found that the mean value of *FLE-Private* was only significantly different ($p = < .001$, 95%-CI [0.26, 1.3]) between first-year ($M = 4.27 \pm 0.64$) and second-year students ($M = 3.49 \pm 0.84$).

Another one-way ANOVA revealed a significant difference in *FLE-Social* mean values between learner groups in different academic years with a medium to large effect ($F(3, 135) = 6.09, p = < .001$, Cohen's $f = 0.37$). A post-hoc test was performed, showing that *FLE-Social* scores were significantly higher for participants in their first year of Austrian middle-school than for those in their second ($p = .009$, 95%-CI [0.11, 1.05]) or fourth year ($p = .003$, 95%-CI [0.16, 1.05]). On average, first-year learners reported *FLE-Social* scores of 4.1 (± 0.61) whereas those of learners in year two and four were lower with 3.53 (± 0.8) and 3.5 (± 0.71), respectively. Furthermore, there was a statistically significant difference between fourth- and third-years ($p = .041$, 95%-CI [0.01, 0.88]), who had a higher *FLE-Social* mean score of 3.95 (± 0.74).

For the variable *FLE-Teacher*, further significant mean-value differences of medium effect size between academic years were found ($F(3, 135) = 5.46, p = < .001$, Cohen's $f = 0.35$). Tukey's post-hoc test revealed significant differences between learners in year four and those in years one ($p = .003$, 95%-CI [0.23, 1.43]) and three ($p = .011$, 95%-CI [0.12, 1.3]). In fact, fourth-year students reported significantly lower mean scores of *FLE-Teacher* ($M = 3.6 \pm 0.89$) than those in their first ($M = 4.43 \pm 0.88$) or third year ($M = 4.31 \pm 0.97$).

Moreover, a one-way ANOVA compared the effect of learners' academic year on *FLE-Atmosphere* and revealed highly significant differences between most groups of a medium to large effect size ($F(3, 135) = 6.4, p = < .001$, Cohen's $f = 0.38$). A Tukey HSD test showed multiple significant findings: First-year students ($M = 4.03 \pm 0.62$) had significantly higher mean values of *FLE-Atmosphere* than those in their second year ($M = 3.37 \pm 0.84, p = .006$, 95%-CI [0.15, 1.17]), and those in their fourth year ($M = 3.38 \pm 0.83, p = .004$, 95%-CI [0.16, 1.13]). Furthermore, third-years' comparatively high mean-values ($M = 3.88 \pm 0.79$) also differed significantly from second- ($p = .042$, 95%-CI [0.01, 1.02]) and fourth-years ($p = .033$, 95%-CI [0.03, 0.98]).

5.1.7. Differences regarding performance level

As shown in Table 11, several independent t-tests showed significant differences in FL emotion mean-values between students at performance level *Standard* and *Standard-AHS*, respectively. Participants at performance level *Standard* ($M = 2.88 \pm 0.79$) reported significantly higher *Global-FLCA* values than those at *Standard-AHS* ($M = 2.26 \pm 0.95, t(107) = 3.6, p = < .001$, Cohen's $d = .73$). Furthermore, *Standard*-level students' *Lack of Confidence* ($M = 2.88 \pm 0.79$) also exceeded mean-values of those

at a *Standard-AHS* level ($M = 2.3 \pm 1$); the effect size was medium to large ($t(107) = 3.48, p = < .001$, Cohen's $d = .7$).

Table 11. Mean values and t-test results of FL emotions according to performance levels.

In Table 11, mean values (M) and standard deviation (SD) of FL emotions and subdomains are given. It also shows results of a series of t -tests comparing learners at performance level *Standard* ($n = 72$) and *Standard-AHS* ($n = 37$), including Cohen's d values to list effect size. Significant differences are indicated with * ($p = < .05$) or ** ($p = < .01$).

	STANDARD ($n = 72$)		STANDARD-AHS ($n = 37$)		T-TEST RESULTS		
	M	SD	M	SD	$t(107)$	p	d
GLOBAL FLCA**	2.88	0.79	2.26	0.95	3.6	< .001	.73
LACK OF CONFIDENCE**	2.91	0.78	2.3	1	3.48	< .001	.7
NERVOUSNESS*	2.84	1.21	2.25	1.27	2.35	.01	.48
GLOBAL FLE	3.59	0.65	3.8	0.82	-1.44	.08	- .29
FLE-PRIVATE*	3.56	0.8	3.95	0.88	-2.33	.02	- .47
FLE-SOCIAL	3.61	0.72	3.7	0.85	- .6	.55	- .12
FLE-TEACHER	3.96	0.96	3.85	1.15	.56	.58	.11
FLE-ATMOSPHERE	3.43	0.78	3.7	0.95	-1.54	.13	- .31

For *Nervousness*, comparable results were found: Learners' mean values were significantly higher at performance level *Standard* ($M = 2.84 \pm 1.21$) than at *Standard-AHS* ($M = 2.25 \pm 1.27, t(107) = 2.35, p = .01$). However, the effect size was small to medium (Cohen's $d = .48$). Table 11 further illustrates that mean-value group differences in FLE and its dimensions were not significant with the exception of *FLE-Private*: Students assigned to the performance level *Standard* reported significantly lower *FLE-Private* scores ($M = 3.56 \pm 0.8$) than their colleagues at a *Standard-AHS* level ($M = 3.95 \pm 0.88, t(107) = -2.33, p = .02$). A small to medium effect size was found for this result (Cohen's $d = -.47$).

A Mann-Whitney U -test identified a significant difference in *Physical symptoms* of FLCA ($U = 955.5, p = .01$) between the two investigated learner groups. Similarly to *Global FLCA*, *Lack of confidence*, and *Nervousness*, those students assigned to performance level *Standard* had higher scores of *Physical Symptoms* (median = 3) than those to *Standard-AHS* (median = 2).

5.1.8. Differences regarding multilingualism

Not all of the learner groups in connection with the variable multilingualism (see Table 2 in section 4.4) met the criteria for parametric statistical analysis, such as minimum sample size and normal distribution of the data. Therefore, non-parametric tests such as Mann-Whitney *U*-tests and Kruskal-Wallis tests were performed to explore inter-group differences. Examining significant findings further, additional parametric tests were used if the necessary criteria were fulfilled:

Examining differences in medians between learner groups, a Mann-Whitney *U*-test revealed significant results: It was found that participants who stated to be proficient in languages in addition to German and English ($n = 93$) differed significantly from those who did not ($n = 14$) when it came to their *Global FLE* ($U = 560.5, p = .03$) and *FLE-Private* scores ($U = 547, p = .02$). In both cases, students with a higher degree of multilingualism reported higher levels of *Global FLE* (median = 3.92) and *FLE-Private* (median = 4) than their colleagues (*Global-FLE* median = 3.46, *FLE-Private* median = 3.3). No significant results were found for the other dimensions of FLE as well as FLCA and its subdomains.

A series of Kruskal-Wallis tests were performed to investigate the effect of multilingualism on learners' FL emotions. The tests showed no significant group differences in FLCA or FLE with regard to the general number of languages mentioned by participants, the number of languages in which they reported to possess reading or writing skills, and the number of languages they were currently learning or studying. However, the Kruskal-Wallis tests indicated that there were significant differences in *FLE-Private* ($H(3) = 9.16, p = .03$) between those who did not report speaking skills in further languages and those who spoke one or two additional languages: Those who did not claim to be skilled at speaking in further languages ($n = 30$, median = 3.6) showed lower levels of *FLE-Private* than those who said they could speak one ($n = 77$, median = 4) or two more languages ($n = 27$, median = 4.2) in addition to German and English. Similar results were found for participants' listening skills and their *FLE-Private* scores: A Kruskal-Wallis test again showed significant differences ($H(3) = 8.95, p = .03$) between participants who reported to understand a different number of languages when listening. In this instance, *FLE-Private* was also higher for those who possessed listening skills in one ($n = 67$, median = 4) or two more languages ($n = 31$, median = 4) than for those who did not ($n = 35$, median = 3.8). There were no significant results found for the other learner groups regarding their listening and speaking skills.

To explore these significant findings associated with multilingualism further, an ANOVA and a t-test were performed for the learner groups that met the necessary sample sizes. Similarly to the Kruskal-Wallis test, a one-way ANOVA revealed that there was a statistically significant difference of medium effect size between the learner groups regarding *FLE-Private* ($(F(2, 130) = 4.94, p = .01, \text{Cohen's } f = 0.28)$) when it comes to listening skills. Tukey's HSD test found that the mean value of *FLE-Private* was significantly different between learners understanding no further languages in a spoken form ($M = 3.47 \pm 1.01$) and those who reported one additional language ($M = 3.95 \pm 0.68, p = .02, 95\text{-CI } [-.89, -.08]$). Furthermore, learners who were able to understand two more languages when listening reported significantly higher mean values of *FLE-Private* ($M = 4.02 \pm 0.86$) than those who only possessed listening skills in German and English ($p = .02, 95\text{-CI } [-1.03, -.07]$). To further examine the difference between learners who speak one additional language and those who do not, an independent t-test was performed. Similar to the findings above, it showed significant differences in mean values of *FLE-Private* ($t(105) = -2.22, p = .03$) between these two groups. In fact, those participants who were able to speak one language in addition to German and English reported significantly higher mean values of *FLE-Private* ($M = 3.88 \pm 0.76$) than their colleagues who did not ($M = 3.5 \pm 0.89$).

5.1.9. Differences regarding self-assessment

Participants answered two questions in which they assessed their English skills (a) compared to their classmates and (b) using school grades. A series of t-tests indicated significant differences in FL emotions between learners who assessed their English skills as better than their colleagues' ($n = 46$) and those who stated that their level of proficiency is similar to or worse than their classmates' ($n = 93$). The t-test results as well as mean values and standard deviation are shown in Table 12: Highly significant differences of medium to large effect size were found between those who assessed their English skills as higher than their colleagues' and those who did not when it came to their *Global FLCA* scores ($t(137) = -3.8, p < .001, \text{Cohen's } d = -.68$) and their *Lack of Confidence* ($t(137) = -3.89, p < .001, \text{Cohen's } d = -.7$). In both instances, students with a higher self-assessment scored lower on *Global FLCA* ($M = 2.31 \pm 0.84$) and *Lack of Confidence* ($M = 2.33 \pm 0.89$) than their peers (*Global FLCA*: $M = 2.87 \pm 0.79$, *Lack of Confidence*: $M = 2.91 \pm 0.8$). Further significant group differences with a small to medium effect were found for the FLCA subdomain *Nervousness* ($t(137) = -2.45, p$

=.02, Cohen's $d = -.44$) and for *FLE-Private* ($t(137) = 2.03$, $p = .04$, Cohen's $d = .37$). The participants who assessed themselves as more proficient than their peers reported lower levels of *Nervousness* ($M = 2.31 \pm 1.22$) and higher *FLE-Private* scores ($M = 4.02 \pm 0.83$) than the learner group who rated their English skills as medium or lower than their colleagues' (*Nervousness*: $M = 2.85 \pm 1.2$, *FLE-Private*: $M = 3.72 \pm 0.83$).

Table 12. Mean values and t-test results of FL emotions according to self-assessment compared to others.

Table 12 indicates mean values (M) and standard deviation (SD) of FL emotions and their respective subdomains. Results of a series of t -tests comparing participants who assessed their English skills as better than the other learners' ($n = 46$) and those who felt their skills are not different from or poorer than the other students' skills ($n = 93$) are given. Significant differences are marked with * ($p < .05$) or ** ($p < .01$) and Cohen's d values are listed to indicate effect size.

	MEDIUM TO LOWER SELF-ASSESSMENT ($n = 93$)		HIGHER SELF-ASSESSMENT ($n = 46$)		T-TEST RESULTS		
	M	SD	M	SD	$t(137)$	p	d
GLOBAL FLCA**	2.87	0.79	2.31	0.84	-3.8	< .001	- .68
LACK OF CONFIDENCE**	2.91	0.8	2.33	0.89	-3.89	< .001	- .7
NERVOUSNESS*	2.85	1.2	2.31	1.22	-2.45	.02	- .44
GLOBAL FLE	3.7	0.69	3.9	0.75	1.56	.12	.28
FLE-PRIVATE*	3.72	0.83	4.02	0.83	2.03	.04	.37
FLE-SOCIAL	3.69	0.73	3.83	0.82	.99	.32	.18
FLE-TEACHER	4	1.01	4.13	1.03	.79	.22	.14
FLE-ATMOSPHERE	3.56	0.77	3.78	0.93	1.52	.13	.27

However, as the data in Table 12 shows, no significant results were found for *Global FLE* and its other subdomains. Furthermore, a Mann-Whitney U -test investigating *Physical Symptoms* related to FLCA did not show a significant difference between these learner groups either.

To explore differences between these learner groups more closely, a series of Kruskal-Wallis tests were performed. This non-parametric test was chosen since only 16 participants stated that their English skills were poorer than most of their classmates', and, therefore, the group size was too small to perform an ANOVA. A Kruskal-Wallis test for *Physical Symptoms* connected to FLCA showed no significant differences between the three learner groups, i.e., between groups with lower ($n = 16$), medium ($n = 77$), and higher self-assessment ($n = 46$). The tests, however, indicated that learners' *Global FLCA* rank scores differed significantly between the three groups

($H(2) = 19.55, p = < .001$). The group with lower self-assessment reported significantly higher levels of *Global FLCA* (median = 3.13) than those with medium self-assessment (median = 2.75) while those with higher self-assessment scored even lower (median = 2.06) than the other two groups. For *Lack of Confidence* ($H(2) = 18.77, p = < .001$), similar results were found: A post-hoc paired comparison showed that all groups significantly differed from each other and that once more the learners who assessed their English skills as below average (median = 3.25) had higher scores than those who thought their skills were average (median = 3) whereas the students who assessed themselves as above average had the lowest levels of *Lack of Confidence* (median = 2.25). When it comes to the students' *Nervousness*, a Kruskal-Wallis test and paired comparisons indicated a significant difference ($H(2) = 10.22, p = .01$) between the group with lower self-assessment (median = 3) and the group with higher self-assessment (median = 2.33). In this case, the former group also scored higher on *Nervousness* than the latter.

Further Kruskal-Wallis tests showed no significant differences between these two groups regarding their respective *Global FLE*, *FLE-Social*, and *FLE-Teacher* levels. Some of the learner groups, however, differed in their *FLE-Private* ($H(2) = 8.04, p = .02$) and *FLE-Atmosphere* scores ($H(2) = 6.92, p = .03$). Those who rated themselves as above average scored significantly higher in *FLE-Private* (median = 4.2) and *FLE-Atmosphere* (median = 4) than learners who assessed their English skills as below average (*FLE-Private*: median = 3.7, *FLE-Atmosphere*: median = 3.5). Differences from the medium-self-assessment group were non-significant.

As shown in Table 13, another series of tests were performed to compare FL emotions of learner groups according to their self-assessment using school grades. While most learners ($n = 48$) chose to assess themselves with the grade 3, *i.e.*, *Satisfactory*, 41 students rated their English skills as 2 - *Good* and 26 as 1 - *Very good*. Only 18 out of 139 participants assessed their English level as 4 - *Sufficient* and the smallest number of students ($n = 6$) gave themselves a 5, *i.e.*, a failing grade. Due to the rather small sample sizes of some of the groups, the criteria for parametric statistical testing were not met, and Kruskal-Wallis tests were used for the analysis instead: A Kruskal-Wallis test did not show intergroup differences in *Physical Symptoms* of FLCA, whereas *Global FLCA* ($H(4) = 23.47, p = < .001$) and *Lack of Confidence* ($H(4) = 21.36, p = < .001$) differed significantly among learner groups that rated their English skills with different school grades. To investigate differences in

Global FLCA more closely, paired comparisons showed that scores of those who assessed themselves as 1 - *Very good* (median = 2.06) were significantly lower than those who rated their English skills as 3 - *Satisfactory* (median = 2.81), as 4 - *Sufficient* (median = 3.06), or as 5 - *Failing* (median = 3.62). Further significant differences in *Global FLCA* were found between group 2 - *Good* (median = 2.25) and group 3 - *Satisfactory* as well as 4 - *Sufficient*. Once more, those who assessed themselves as better had lower scores of *Global FLCA* than their peers.

Table 13. Medians and Kruskal-Wallis test results of FL emotions according to self-assessment using school-grades.

In Table 13, medians of FL emotions and their respective dimensions are included. To compare groups of students according to their self-assessment of their English language skills using school grades found in the Austrian educational context, Kruskal-Wallis test results (H) and (p) are included. Significant differences are indicated with * ($p < .05$) or ** ($p < .01$).

	1 - VERY GOOD ($n = 26$)	2 - GOOD ($n = 41$)	3 - SATISFACTORY ($n = 48$)	4 - SUFFICIENT ($n = 18$)	5 - FAILING ($n = 6$)	KRUSKAL-WALLIS TEST RESULTS	
						$H(4)$	p
GLOBAL FLCA**	2.06	2.25	2.81	3.06	3.62	23.47	< .001
LACK OF CONFIDENCE**	2	2.5	3	3	3.75	21.36	< .001
PHYSICAL SYMPTOMS	2	2	3	3	3	6.44	.17
NERVOUSNESS*	2.17	2.33	3	3.17	2.83	12.15	.02
GLOBAL FLE**	4.08	4.15	3.81	3.77	3.42	14.58	< .01
FLE-PRIVATE**	4.2	4.2	3.8	3.6	3.4	25.15	< .001
FLE-SOCIAL	4	4	3.75	3.69	3.5	5.51	.24
FLE-TEACHER	4.67	4	4.33	4.67	4.17	3.64	.46
FLE-ATMOSPHERE**	4.13	4	3.63	3.38	3	16.93	.002

As indicated in Table 13, *Lack of Confidence* levels were also significantly lower for learners who rated their skills as 1 -*Very good* (median = 2) than scores of those in groups 3 (median = 3), 4 (median = 3), and 5 (median = 3.75). Even though the Kruskal-Wallis test for the variable *Nervousness* indicated significant results ($H(4) = 12.15$, $p = .02$), no group-specific differences were revealed to be significant in the paired comparisons.

Regarding the positive FL emotion, Kruskal-Wallis tests showed significant differences in *Global FLE* ($H(4) = 14.58$, $p < .01$), *FLE-Private* ($H(4) = 25.15$, $p < .001$), and *FLE-Atmosphere* ($H(4) = 16.93$, $p = .002$) among the investigated learner

groups. Similar to findings for *Nervousness*, paired post-hoc comparisons did not indicate specific inter-group differences in *Global FLE* scores that were significant. To analyze differences in *FLE-Private*, paired comparisons were conducted. These showed that scores were significantly higher for those in group 1 (median = 4.2) than for those in groups 3 (median = 3.8), 4 (median = 3.6), or 5 (median = 3.4). Furthermore, those who rated their English skills as 2 - *Good* (median = 4.2) also reported higher levels of *FLE-Private* than those who said they were 3 - *Satisfactory*, 4 - *Sufficient*, or 5 - *Failing*. Simultaneously, students who selected the best grade, i.e., 1 - *Very good*, had significantly higher levels of *FLE-Atmosphere* (median = 4.13) than those in groups 4 (median = 3.38) and 5 (median = 3), which comprise the opposite end of the grading spectrum. Moreover, no significant group differences were found in connection with *FLE-Social* and *FLE-Teacher*.

5.2. Qualitative analyses

In the following subsections, further results regarding learner responses to an open-ended question and data from special-needs students are presented.

5.2.1. Responses to the open-ended question

19 participants responded to the last item of the questionnaire. This optional question asked them to add any further remarks they would like to share. By means of qualitative-content analysis, the 19 responses to this open-ended question were grouped into categories. In total, the participants added ten strictly positive and four negative remarks. Furthermore, five comments were either neutral or included both positive and negative aspects.

Positive responses included student comments reflecting their explicit intent to improve their English skills further. Seven out of 19 learners included this aspect in their responses highlighting that they, for example, wanted to improve their language proficiency so they can sharpen their communication skills with friends. Furthermore, five student responses were grouped together in the category positive feedback towards English lessons as they, for instance, remarked that they liked the school subject English a lot or that the lessons are interesting. One student even directly commented on their teachers, stating that they were nice. Three participants expressed their personal interest in learning English when answering this open-ended question, stating that they were interested in the language in general. By expressing

their love of speaking the language, three students also highlighted further positive emotions towards English in their remarks.

Fewer neutral or negative remarks were submitted. Two responses were considered neutral since the respective learners provided evidence for their multilingualism or stated their own personal background. One of the participants for instance, translated the word *hello* into five languages. Most of the negative remarks were concerned with the learners' difficulties in the acquisition process. One student, for example, added that they would like the subject English to be easier, while another learner highlighted that it was difficult for them to remember lesson contents. Two responses were linked to the category *looking for the root of the problem* as the respective participants either stated that the lockdowns due to the Covid-19 outbreaks were the reason for their declining skills or that they themselves cannot be blamed for their struggle. Furthermore, two respondents provided negative feedback on their peers' behavior, saying that they were not able to concentrate properly whenever their colleagues were loud or disruptive in school. One student also included detailed negative feedback on a school-specific teaching method. For this learner, the open-learning format was a source of pressure and difficulties in understanding the content especially because they felt overwhelmed with the task of self-regulating their learning.

5.2.2. Special-needs students

The data obtained from the five special-needs students participating in the study could not be grouped together with that of the other learners since their English language learning experiences differs when it comes to their teacher support, learning materials, and grading. Therefore, this section provides a short descriptive analysis for these specific students' FL-emotion accounts.

In this group, two female and three male learners participated. Their age ranged from 12 ($n = 1$) to 14 ($n = 1$). Three of these special-needs students were 13 years old. Furthermore, four learners were currently in the second academic year of Austrian middle schools, and one was in year 3. All students reported to be skilled in at least one language in addition to German and English. More specifically, all five learners were able to understand one more language in a written form, whereas their level of multilingualism concerning listening skills ranged from one ($n = 2$) to three additional languages ($n = 1$). While one learner stated to possess speaking skills in three more languages, the other four were able to speak one language in addition to German and

English. Four of the special-needs students reported additional writing skills and two students stated that they were currently learning at least one more language. When answering the two self-assessment questions, all five participants rated their English skills as medium compared to their colleagues'. Three students also gave themselves the school grade 2 - *Good* while one chose 4 - *Sufficient* and another one said they were failing.

Mean scores of FL emotions were calculated for the five special-needs students. These values are listed in Table 14: When it comes to global FL emotion scores, Student A reported the highest levels of both *Global FLCA* and *Global FLE* with mean scores of 4 and 4.62, respectively. Student D and Student E had the lowest mean values of *Global FLCA*, i.e., 2.13. Furthermore, Student E also reported a *Global-FLE* score of 2.69, which is the lowest value of this emotion variable among the special-needs students. All five students reached higher mean values of the positive FL emotion *Global FLE* than of the negative emotion *Global FLCA*.

Table 14. Special-needs students' FL emotions.

Table 14 shows FL-emotion scores of five special-needs students participating in the study at hand. These values include *Global FLCA*, *Global FLE*, and the two emotions' respective subdomains. For all variables, mean values are given except for *Physical Symptoms*. Since it consists of a single item, learners' respective item scores are included in this instance.

	STUDENT A	STUDENT B	STUDENT C	STUDENT D	STUDENT E
GLOBAL FLCA	4	2.75	2.88	2.13	2.13
LACK OF CONFIDENCE	3	3.5	3.25	3	2.5
PHYSICAL SYMPTOMS	5	1	3	1	3
NERVOUSNESS	5	2.33	2.33	1.33	1.33
GLOBAL FLE	4.62	2.92	3.54	3.77	2.69
FLE-PRIVATE	4.2	3	3.8	3.8	3
FLE-SOCIAL	4.88	2.88	3.38	3.75	2.5
FLE-TEACHER	5	3	3.67	4	2
FLE-ATMOSPHERE	4.75	2.5	3.25	3.25	3

Table 14 further shows that the five students' *Lack of confidence* scores were quite similar with only a slight variation between 2.5 and 3.5. Greater differences could be observed regarding the FLCA dimensions *Physical Symptoms* and *Nervousness*:

While Student B and Student D reported the lowest possible score of *Physical Symptoms*, i.e., 1, Student A's score indicated the highest level, i.e., 5, of both *Physical Symptoms* and *Nervousness*. Once more, Student D had the lowest reported score of 1.33, sharing this low level of *Nervousness* with Student E.

Moreover, Student A's scores also reflected the highest levels of FLE related dimensions *FLE-Private* (4.2), *FLE-Social* (4.88), *FLE-Teacher* (5), and *FLE-Atmosphere* (4.75) among the special-needs students. Regarding *FLE-Private*, average scores ranged from 3 (Student B and E) to 4.2 (Student A). With mean scores of 2.5 and 2, respectively, student E reported the lowest levels of the subdomains *FLE-Social* and *FLE-Teacher*. Student B had the lowest scores of *FLE-Atmosphere* among the group of learners with an average of 2.5.

6. Discussion

Shedding light on the role emotions play in the FL learning process, the results of the study at hand explore FL enjoyment and anxiety of Austrian lower-secondary EFL learners especially, which can be considered a novel research focus in this context. It can be said that the findings presented in the previous sections highlight the underlying notions of Shao et al.'s (2020) theoretical model of second language emotions and positive psychology (L2EPP). Similar to results in previous studies, higher levels of FLE than FLCA were found in the data at hand. However, unlike suggested by literature in the field, no correlation was found between the two FL emotions. These findings support the L2EPP's assumption that both positive and negative emotions should be included in empirical studies since they are omnipresent in the language learning process. Furthermore, a number of results showed that there was indeed an interaction of FL emotions with learner's characteristics, their learning outcomes, and institutional factors, as hypothesized by Shao et al. (2020). In the present study, students' FLCA and FLE were linked to their academic year, their self-perceived proficiency, and to the exam or term grades of specific learner groups, as previously suggested by scholars. However, not all results exactly reproduced previous findings in FL-emotion research. For instance, analyses revealed no significant effects of gender on FL emotions. Regarding other variables including age, multilingualism, and achievement, links and effects were only found for individual subdimensions of FLCA or FLE instead of the global concepts typically investigated. In some cases, analyses even showed opposite

effects or directions of correlations: Age, for example, negatively correlated with FLCA of the 10- to 16-year-olds in the sample, contrary to expectations, and students tended to report higher levels of FLE at the initial stages of EFL learning rather than towards the end. Furthermore, aspects of learners' multilingualism positively correlated with physical symptoms related to FLCA but not with FLE. Overall, these results show that FL learners' emotions do in fact interact with their characteristics, learning outcomes, and other institutional variables, as proposed in the L2EPP model by Shao et al. (2020).

The relatively new L2EPP model synthesizes the hypotheses from two theories frequently applied in research regarding not only FL acquisition but also learning in general: Pekrun's (2006) control-value theory and Fredrickson's (1998) broaden-and-build theory. Both theories have been addressed in FL-emotion research (e.g., Li, Jiang & Dewaele 2018: 184; Li, Dewaele & Jiang 2020: 488-489). Furthermore, the two theoretical frameworks share the assumption that negative and positive emotions fulfill different purposes and differ in their effects on learning, achievement, or well-being in general. FLE can be considered a positive (BBT) or more specifically a positive activated emotion (CVT). According to the two theories, these emotions allow learners to (i) broaden their thought-action repertoire, (ii) build enduring personal resources, and (iii) have facilitative effects on the learning process as well as its outcomes. In contrast, FLCA can be identified as a negative (BBT) or negative activated emotion (CVT), which may (i) limit cognitive resources, (ii) induce protective, rejective, or destructive behaviors, and (iii) undermine intrinsic motivation while increasing extrinsic motivation. Both Pekrun's (2006) CVT and Fredrickson's (1998) BBT highlight that these short-term effects multiply if the emotions are evoked repeatedly, which may influence the learning process to a great extent from a long-term perspective. The previously stated results of the study at hand regarding outcome-related variables such as self-perceived proficiency, relative standing in the peer group, and achievement strongly support these hypotheses with a few exceptions. For instance, results did not show significant links between FL emotions and term or exam grades for all learner groups. Consequently, the effects of FL emotions on achievement variables of Austrian lower-secondary EFL learners should be investigated in future research to explore this aspect further.

The following subsections aim to answer the three research questions of the research project at hand and to discuss the hypotheses previously stated in section

4.1 in more detail. Furthermore, implications of the present study's results as well as limitations of the research project at hand are considered.

6.1. Research question 1

In the first research question, the differences and relations between the two FL emotions FLCA and FLE were addressed. Hypothesis H_{1A} was supported by findings from the sample at hand. The Austrian lower-secondary EFL learners in this research project indeed reported significantly higher levels of the positive emotion FLE than of the negative variable FLCA. This result is in line with findings from previous studies with participants from a variety of cultural and regional backgrounds (Dewaele & MacIntyre 2014: 254, Jiang & Dewaele 2019: 21, Dewaele et al. 2022: 258). Furthermore, mean levels of FLCA ($M = 2.68 \pm 0.85$) and FLE ($M = 3.77 \pm 0.72$) were similar to those found in previous samples (cf. Dewaele et al. 2022: 254). Therefore, results indicate that also EFL learners in Austrian classrooms tend to experience more enjoyment than anxiety when acquiring English as a foreign language. Results drawn from the qualitative analysis also showed that learners produce a higher number of positive responses than negative or neutral ones when describing their EFL experience. Finally, descriptive analyses of five special-needs students' FL emotions presented similar findings as the ones described above. However, a larger sample size of this specific learner group would be necessary to make statistical inferences.

To answer the first research question and explore possible correlations between the two emotions further, the research project included hypothesis H_{1B}, which could not be accepted fully. Results showed that unlike in previous research (Dewaele & MacIntyre 2014: 248; Botes, Dewaele & Greiff 2020: 288; Resnik & Dewaele 2020: 7), there was no significant link between global FLCA and FLE scores. Therefore, it can be said that higher levels of FLE may not automatically be indicative of lower levels of FLCA in learners. However, two subdimensions of FLCA, i.e., *Lack of confidence* and *Nervousness*, were linked to aspects of FLE. Drawing from these results, one may argue that those learners who are less confident tend to experience less enjoyment when learning a foreign language and those who show higher teacher-related FLE are also more nervous than their peers. Moreover, since the two global FL emotions did not significantly correlate in this study, the understanding that FLCA and FLE should be seen as separate concepts and not two sides of the same coin can be highlighted.

While some of their subdomains are connected, FLCA and FLE may indeed differ due to their variety in causes and influences on other variables (Chen et al 2021: 1-2).

6.2. Research question 2

The second research question was concerned with the relations between the two FL emotions and participants' characteristics as well as learning outcomes. Findings in connection with the negative emotional construct FLCA confirmed hypothesis H_{2A} only partially: Contrary to expectations, it was found that the older the students were and the more academic years they had completed, the lower their levels of *Global FLCA* and *Nervousness* were. In fact, this finding contrasts with results from Dewaele and MacIntyre's study (2014: 253), which indicated that older learners reported lower levels of FLCA than their peers in pre-teen years. Instead, the results concerning learners' academic years are in line with the claim that more advanced (as opposed to older) learners report lower levels of FLCA (Dewaele & MacIntyre 2014: 252-253). However, their conclusion was drawn from results of an older learner group in which most of the participants were studying English voluntarily. Analyses regarding learners' age, number of academic years, and these variables' possible links to FLCA are inconsistent or still in need of additional data on younger learners. Therefore, research on these specific aspects may be fruitful in order to gain deeper insights. The research at hand further suggested that learners who are proficient in or are currently studying more languages also experience significantly more *Physical Symptoms* of FLCA than their peers. While this increase contrasts with some previous findings (Dewaele & MacIntyre 2014: 249), it may be explained by the possibility that the degree of proficiency in the target language may also be critical when it comes to multilinguals' FLCA (Dewaele 2010: 105). As the learners in the sample at hand were predominantly at the beginner levels of studying English, their multilingualism may not have been such a useful "crutch" as it is for intermediate students. Other aspects of multilingualism were not related to FLCA. Nevertheless, since multilingualism has not received as much attention in FL-emotion research as other variables have (Botes, Dewaele & Greiff 2020: 284) and since some aspects in this and other research projects show promising results, further analyses of larger samples might provide researchers with valuable insights into multilingual learners' FLCA experience.

Achievement was not directly linked to all learners' FLCA scores. Only for learners assigned to the performance level *Standard*, findings supported the original

hypothesis regarding their exam grades, which negatively correlated with *Global FLCA* and *Nervousness*. The latter also negatively correlated with these learners' term grades. In comparison, there was a negative correlation between term grades of students at the *Standard-AHS* level and their *Lack of confidence*. Consequently, it can be said that some participants' achievement was higher the less FLCA they reported. However, this result cannot be generalized for the whole sample of Austrian EFL learners in the present study as it has been for other learner groups in the past (Dewaele & MacIntyre 2014: 250-251; Saito et al. 2018: 729-732; Li, Dewaele & Jiang 2020: 504). Instead, these results support Dewaele and Alfawzan's (2018: 41) assessment that FLCA may not be a highly reliable predictor of proficiency and test scores. As further hypothesized, participants' self-perceived proficiency as well as their relative standing in the peer group were negatively linked to *Global FLCA*, *Lack of confidence*, and *Nervousness*. These findings suggest that learners who perceive their FL skills as more advanced tend to be less anxious in the FL class, more confident, and less nervous than their classmates are. This means that previous findings on self-perceived proficiency and its links to FLCA by, for instance, Botes, Dewaele, and Greiff (2020: 298) or Li, Dewaele, and Jiang (2020: 503) may be transferrable to the Austrian lower-secondary EFL context.

Hypothesis H_{2B} predicted positive links between FLE and learners' degree of multilingualism, self-perceived proficiency, and achievement as well as a negative correlation with age and academic progress. Quantitative analyses of the data largely supported these assumptions: As suggested, learners' appraisal of their own FL proficiency was significantly connected to FLE and its subdomains except for *FLE-Teacher*. Therefore, it can be deduced that Austrian learners' enjoyment connected to the EFL process tends to be greater the higher they perceive their own skills in the subject matter. Similarly, the higher students assess their FL skills in comparison to their peers, the higher is their global, private, and atmosphere-related enjoyment. These findings are not only in line with previous research (Dewaele & MacIntyre 2014: 252; Botes, Dewaele & Greiff 2020: 298) but also highlight that future studies should include a focus on FL emotions' subdimensions instead of only including them globally. This way a more detailed picture of the role FLE aspects play in learners' learning process may be formed. Moreover, findings confirmed the claim that students who are in a higher academic year tend to score lower on FLE. This is in line with Dewaele and Dewaele's (2017: 17) result that 14-to-15-year-olds reported significantly lower levels

of FLE than their younger peers. Most students in the fourth, i.e., highest, academic year of Austrian middle school were 14 or older, and there was indeed a negative correlation of FLE scores and academic years. Research on FLE and academic progress, however, usually targets older learner groups at a high-school or even university level. These studies tend to report opposite trends (Dewaele & MacIntyre 2014: 252-253; Dewaele & MacIntyre 2016: 262).

Regarding FLE's links to age, multilingualism, and achievement, results do not fully support hypothesis H_{2B}. Age was only significantly connected to teacher-related FLE, i.e., younger students tended to show a higher appreciation than their older peers did. Unlike in the research project performed by Dewaele and MacIntyre (2014: 253), the study at hand showed no steady increase in FLE scores from a pre-teen age onwards. However, since the authors mention a minor drop of FLE in teenagers' reports, it is possible that this short downtrend was especially prevalent in the sample group at hand focusing on learners of 10 to 16 years and may thus have severely affected FLE results. Regarding multilingualism, findings showed that the private dimension of FLE positively correlated with the number of languages students reported to be proficient in additionally to German and English. This suggests that the more languages students are skilled at, the more they feel that learning another language is desirable or important; consequently, they enjoy FL learning to a greater extent. However, a higher degree of multilingualism was not directly linked to higher levels of *Global FLE*, which was suggested in hypothesis H_{2B} and in previous research (Dewaele & MacIntyre 2014: 249). Possibly, learners' multilingualism can be considered a variable from which they can profit more on a private level as opposed to on a social level, i.e., with their peers, the teacher or the general atmosphere of the FL classroom. This may explain the strong link of multilingualism to *FLE-Private* but not the other FLE subdomains. Similar to FLCA, FLE, moreover, was not significantly linked to exam and term grades of all learner groups in the sample. However, those students who are in their first year of Austrian middle school tend to possess significantly higher FLE, the better their term and exam grades are. In this group, findings also apply to all subdimensions of FLE except for *FLE-Teacher*. Term grades of learners at the performance level *Standard* only correlate with the private dimension of FLE, i.e., those who have better term grades tend to have higher *FLE-Private* levels. While students' exam grades at this level do not appear to be related to FLE, those at the *Standard-AHS* level tend to have better exam grades, the higher their *Global FLE*,

FLE-Private, or *FLE-Teacher* scores are. Higher *FLE-Teacher* levels in the *Standard-AHS* group also tended to coincide with better term grades. While these significant results are in line with previous research findings regarding *Global FLE* (Dewaele & MacIntyre 2014: 250-251, Saito et al. 2018: 729-732; Jin & Zhang 2021: 958-959), a more detailed approach in large scale studies should be taken to account for the subdimensions of FLE and their supporting role in FL learning.

6.3. Research question 3

The third research question aimed at exploring differences between learner groups in the Austrian lower-secondary EFL context. Analyses of the sample showed no significant differences in global FLCA and FLE levels between male and female learners. Only for the subdomain *FLE-Atmosphere*, results indicated that girls tended to report higher scores than boys. Consequently, hypothesis H_{3A} was rejected. These findings are in line with Piniel and Zólyomi's (2022: 194) meta-study, which found no significant gender-effects on FLCA, whereby they contradict conclusions of other researchers such as Dewaele and MacIntyre (2014: 254), Dewaele and Dewaele (2017: 18-19), and Dewaele et al. (2016: 59). While exploring these discrepancies in research findings may be interesting, one should keep in mind not to overemphasize biological distinctions but rather focus on how to mitigate potential gender-related stereotypes that may negatively affect learning.

While Hypothesis H_{3B} could be confirmed partially, learner group differences did not exclusively concern first- and fourth-year students: Results from the study showed that those in their second academic year of an Austrian middle school tend to score higher on *Global FLCA* and *Nervousness* than their peers in year three and four. While first-year learners did not differ from their more advanced colleagues concerning their FLCA levels, many of their FLE-related scores were significantly higher. These include *Global FLE*, *FLE-Social*, and *FLE-Atmosphere* levels that were higher than those of second- or fourth-year students. Furthermore, learners in year one also tended to report higher mean values of *FLE-Private* than those in year two as well as higher *FLE-Teacher* scores than those in year four. Unlike hypothesized and indicated in previous research (Dewaele & MacIntyre 2014: 252-253; Dewaele & MacIntyre 2016: 262), these results suggest that beginner learners in fact report higher FLE levels than their more advanced colleagues do. While learners in year three enjoyed their FL-classes' atmosphere more than second-year students, other results support this theory and

suggest that learners in year three tend to experience higher levels of *FLE-Social*, *FLE-Teacher* and *FLE-Atmosphere* than those in their fourth academic year do. A plausible reason for this trend can be seen in course-book and material designs. EFL tasks for younger learners, i.e., in lower academic years, usually include playful and easier exercises whereas more advanced materials may be more complex but simultaneously catering to older students through the introduction of potentially interesting topics. In future investigations, a combination of course-book analyses and FL-emotion research might provide valuable insights that could not be considered in the research project at hand. Furthermore, research focusing on teacher-related effects on FLCA and FLE may reveal interesting results. While the scope of the present study did not allow to obtain detailed data on the language teachers involved, future research projects should also investigate this central aspect of FL acquisition on a deeper level. For instance, instruments may include questions directly aimed at students' perception of and attitudes towards their English teachers to analyze possible links and differences regarding FL emotions. Another potential reason for the FL-emotion differences between the four academic years in the present study may also stem from the different teacher teams instead of only their academic progress: There were no significant differences between first- and third-year students, who were instructed by the same two English teachers, i.e., *Teacher A* and *Teacher B*. However, these learners' emotions oftentimes differed from those in year two (*Teacher C* and *Teacher D*) and those in year four (*Teacher E* and *Teacher F*). Further insights into teacher- or academic-year-related variables may be gained by comparing multiple EFL classes taught by different teachers in the same academic years.

Regarding hypothesis H_{3C}, results confirmed that learners at the performance level *Standard-AHS* tend to experience less FLCA than their colleagues at the *Standard-level* do. However, the two groups only differed in *FLE-Private* with an indication for the opposite effect but not in *Global FLE* or other aspects of the positive FL emotion. Since students at the performance level *Standard-AHS* are frequently asked to perform more complex and more difficult tasks, their achievement is usually assessed as higher than that of learners at a *Standard-level*. Consequently, the FLCA and *FLE-Private* results of the study at hand reproduce findings from previous research stating that those at a higher achievement level experience less anxiety and more enjoyment in the FL class than their peers do (Dewaele & MacIntyre 2014: 250-251; Dewaele et al. 2018: 683-684). As mentioned before, future research should focus on

investigating achievement-related concepts in connection with lower-secondary students' FL emotions globally as well as by looking at the effects of FLCA and FLE's subdomains especially.

Another hypothesis related to the third research question, i.e., H_{3D}, was concerned with the effect of multilingualism on FL emotions. In contrast to previous research findings (Dewaele & MacIntyre 2014: 249), no differences regarding FLCA or FLE scores were found between learners who were currently studying or in general knew languages in addition to German and English and those who did not. However, results indicated other significant group differences related to multilingualism: Investigations show that those who know more languages tend to report higher levels of *Global FLE* and *FLE-Private* than their peers do. Furthermore, possessing listening or speaking skills in further languages also seems to have a positive effect on *FLE-Private* scores. As suggested by Dewaele (2007: 404), FL students who are proficient in a variety of languages may also have become better communicators. The findings of the present study support the assumption that especially being able to engage in oral communication in many different languages might fuel learners' private enjoyment of learning a FL.

Regarding the effects of learners' self-perceived proficiency and relative standing in their peer group, respectively, hypothesis H_{3E} can partially be confirmed. It was shown that lower-secondary students assessing their English proficiency as higher than their colleagues' tend to experience less anxiety in FL classes. Furthermore, their scores of *Lack of confidence* and *Nervousness* also tended to be lower. For the positive emotion, there was only a beneficial effect found for learners' *FLE-Private* levels whereas parametric analyses identified no significant differences regarding *Global FLE* and its other subdimensions. Further tests revealed similar findings: When asked to rate their English skills using school grades, learners who gave themselves the best or second-best grade tend to report higher levels of *FLE-Private* and *FLE-Atmosphere* as well as lower levels of *Global FLCA* and *Lack of confidence* than their peers who describe their proficiency as *Satisfactory*, *Sufficient*, or *Failing* do. These results of the study at hand do not fully support hypothesis H_{3E} and do not completely reproduce previous findings on the effects of self-perceived proficiency (Dewaele & MacIntyre 2014: 252; Botes, Dewaele & Greiff 2020: 298). Nevertheless, they once more highlight the need to analyze potentially influential factors of FL emotions in a more detailed

than simply global manner to account for the complexity of FLCA and FLE's role in the learning process.

6.4. Limitations and implications

To gain a deeper understanding of FL emotions in the Austrian lower-secondary EFL classroom, further research projects are needed in this specific context. Large-sample surveys that provide data from multiple lower-secondary school forms in the Austrian school system in various regions would enable researchers to account for a myriad of potential learner-group differences in this context. Due to the scope of the study at hand, these or further institutional factors as well as other learning-outcome-related concepts such as motivation could not be considered. Furthermore, investigations of FLCA's and FLE's subdomains as well as in-depth analyses of the effects of multilingualism or the teacher on these two FL emotions are still scarce but necessary to fully understand the influence of these omnipresent variables on learning and teaching.

Despite the limitations of the present project, several insights into the FL emotions of Austrian lower-secondary learners were provided, which may carry underlying implications for students and teachers alike. Findings showed that while learners tend to experience more FLE than FLCA, there seems to be no significant link between the two emotions, and they should be seen as two separate concepts. Consequently, students and teachers should not only focus on either the positive or the negative FL emotion but rather on both. For example, FLE and FLCA can be addressed directly in FL classes in order to raise student awareness, to discuss possible sources of these emotions, and to introduce strategies to regulate them. When aiming to improve regulatory processing of emotional factors in their classes, teachers can implement activities that promote confidence of learners. Open-learning formats, which are student-centered and allow FL learners to become more independent and work at their own pace, may be especially beneficial in this respect. Furthermore, learning environments in which learners can experience a sense of achievement may not only boost their motivation and self-confidence but also reduce anxiety and nervousness. Therefore, the level of difficulty encountered in tasks should be adjusted to the learners' skills by avoiding both boredom and excessive demand. Another potentially beneficial factor constitutes the facilitation of a classroom climate in which (i) learners feel appreciated by teachers and peers, (ii) they feel safe even when making mistakes, and

(iii) there is room for fun and humorous remarks. Significant differences highlight that particular attention to some learner groups can be necessary to counteract tendencies that may negatively impact their self-confidence and learning experience. These students include those who assess their own skills as poorer than that of their peers, those who report lower test or term grades, those who are assessed at a lower performance level, and male FL learners. When students use self-assessment tools in the FL class, teachers may, for instance, use the obtained data to address not only content deficits but also to identify learners who might need more support regulating their emotions than others.

Further implications include that special attention should be given to maintain first-years' high FL enjoyment levels across later school years of lower secondary. A potential reason for the decline in FLE after the first year of learning English constitutes the increase in abstractness, complexity, and difficulty of tasks. Therefore, learning materials should include engaging activities with playful elements especially in the second year of Austrian middle schools to bridge the apparent gap after the first year. Furthermore, FL teachers should provide additional support for complex or challenging tasks so that repeated failure does not cause the students' FLE to turn into nervousness and anxiety over time. To boost FLE, learners should also be frequently reminded of their personal reasons for learning English and their potential multilingualism should be highlighted as a valuable resource when acquiring another (foreign) language. This can be achieved by providing students with opportunities to draw on known languages and showing them in which instances it may be useful to do so. By introducing multilingualism as a supporting pillar in FL learning, teachers may not only increase their self-confidence but also reinforce the private dimension of learners' FLE.

Considering these implications, future research should not only deepen our understanding of FL emotions but also investigate which measures could be taken to raise awareness of their presence in the learning process, regulate undesirable effects of FLCA, and facilitate FLE in the FL classroom. For this purpose, intervention studies may be suitable tools for evaluating potentially beneficial lesson-contents, activities and tasks, specifically designed workshops, or even long-term changes in institutions. Not only learners but also educators would substantially benefit from research directed at identifying possible strategies to realize effective changes to regulate anxiety and boost enjoyment in their FL classrooms.

7. Conclusion

In conclusion, it was observed that the Austrian lower-secondary EFL learners in the present study experienced significantly more foreign language enjoyment than foreign language classroom anxiety. Furthermore, FLE correlated with students' *Nervousness* and *Lack of confidence* but not with their global FLCA levels.

Further results showed that FLCA and FLE could indeed be linked to variables reflecting students' characteristics and learning outcomes: Learners' age was negatively related to FLCA and *FLE-Teacher* while there was also a negative correlation between their academic progress and enjoyment as well as anxiety in FL classes. The participants' degree of multilingualism was also connected to the two FL emotions. The more languages were known in general or currently studied by the EFL learners, the higher were their levels of *Physical Symptoms* related to FLCA and their *FLE-Private* scores. In reference to achievement, findings showed that in the first year of Austrian middle school, better term and exam grades tend to coincide with higher levels of FLE. Students in the academic years two, three, or four who were assessed at the performance level *Standard* experienced more *FLE-Private* and less *Nervousness* the better their term grades were, while their exam grades negatively correlated with FLCA. Those at a *Standard-AHS* level reported higher self-confidence and *FLE-Teacher* scores the better their term grades were. Simultaneously, these students' exam grades were related to the experience of higher FLE. Superior self-assessment of learners' English skills was associated with lower levels of FLCA and higher levels of FLE.

The study at hand also largely supports the claim that learner groups in the sample differ when it comes to their FLCA and FLE scores: Female learners, first-years, and students who know more languages often report higher FLE mean-values than their colleagues do. Furthermore, private FLE is usually experienced to a greater extent by participants who (i) are assessed at a *Standard-AHS* level, (ii) can participate in oral communication in more languages, and (iii) assess their English skills either as better than their peers' or with the best to second-best school grade. At the same time, (i) second-year students, (ii) those assessed at the performance level *Standard*, (iii) students who state their colleagues outperform them in English class, and (iv) learners who give themselves the grades *Satisfactory*, *Sufficient*, or *Failing* tend to experience more FLCA than their peers do.

Most of these results reinforce existing theories such as the control-value theory introduced by Pekrun (2006) or the broaden-and-build theory by Fredrickson (1998), which are synthesized in the model of second language emotions and positive psychology (Shao et al. 2020). The findings also largely reproduced results from previous empirical investigations. Nevertheless, the research project at hand included a novel focus as it explores FL emotions of a frequently overlooked learner group consisting of beginner EFL students in the Austrian middle school context. Even though the scope of the present thesis did not allow to test its hypotheses in multiple institutions, initial findings suggest that also in the Austrian lower-secondary classroom, FL emotions of students play an important role in the learning process. Consequently, teachers' and learners' awareness of the inevitable presence of both positive and negative FL emotions as well as their sources and effects should be raised. Furthermore, active steps should be taken to not only alleviate negative influences of FLCA but also to boost FLE levels in the EFL classroom.

It seems that Bobby McFerrin's (1988) advice in his hit song not to worry but just to be happy falls short considering the complexity of emotions in FL acquisition. While excessive anxiety may be detrimental, the occasional experience of FLCA is an unavoidable part of learning a second or foreign language. However, this does not mean that there is no room for positive emotions. In fact, learners may frequently experience both enjoyment and anxiety related to FL classrooms at the same time. Therefore, one should not prioritize ignoring or brushing away negative affect altogether in order to achieve happiness. Instead, shifting one's focus towards actively promoting FLE may enable learners to study new languages in an environment which is characterized by happiness in addition to enjoyment and in which nervousness, lack of confidence, or anxiety are anticipated and regulated when necessary.

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9. Appendix

9.1. Abstract

The aim of the present thesis is to shed light on the role of emotions in the Austrian lower-secondary EFL context. Previous research suggests that the sources and effects of negative as well as positive emotions can be manifold (Prior 2019) and highlight the importance of investigating both of them in the context of second or foreign language teaching (e.g., Dewaele & MacIntyre 2014). The two most commonly researched FL emotions are foreign language classroom anxiety (FLCA) and foreign language enjoyment (FLE) with a predominant focus on advanced learners in various regions. The present study employed an online questionnaire to investigate FLCA and FLE of Austrian lower-secondary EFL learners more specifically, as well as how these two emotions may relate to other variables connected to learner characteristics or achievement. Statistical analyses revealed that participants in the present study experienced significantly more FLE than FLCA. Furthermore, FLE values regarding the teacher positively correlated with students' nervousness, and there was a negative correlation between learners' global FLE and their lack of confidence. Further results showed that specific aspects of FLCA and FLE could be linked to variables reflecting students' characteristics and learning outcomes. The study at hand also largely supports the claim that learner groups in the sample differ when it comes to their FLCA and FLE scores. Overall, the thesis emphasizes that both positive and negative emotions play a vital role in the learning process. An awareness of the inevitable presence of both emotions, as well as their sources and effects, would help teachers and students to not only alleviate negative influences of FLCA but also to boost FLE levels in the EFL classroom.

9.2. Zusammenfassung

Das Ziel der vorliegenden Arbeit ist es, die Rolle von Emotionen im Kontext des Englischunterrichts der österreichischen Sekundarstufe I zu beleuchten. Vorherige Untersuchungen deuten darauf hin, dass die Quellen und Auswirkungen negativer und positiver Emotionen vielfältig sein können (Prior 2019) und betonen, dass beide Aspekte im Kontext des Zweit- oder Fremdsprachenunterrichts untersucht werden sollten (z.B. Dewaele & MacIntyre 2014). Die am häufigsten untersuchten Emotionen im Fremdspracherwerb sind *Foreign Language Classroom Anxiety* (FLCA, *Angst im Fremdsprachunterricht*) und *Foreign Language Enjoyment* (FLE, *Freude am Fremdspracherwerb*), wobei der Schwerpunkt zumeist auf fortgeschrittenen Lernenden in verschiedenen Regionen lag. In der vorliegenden Studie wurde ein Online-Fragebogen verwendet, um FLCA und FLE von österreichischen EFL-Lernenden der Sekundarstufe I genauer zu untersuchen und um Zusammenhänge zwischen diesen beiden Emotionen und Charakteristika sowie Lernergebnissen von Lernenden aufzuzeigen. Statistische Analysen ergaben, dass die Studienteilnehmenden signifikant mehr FLE als FLCA erlebten. Außerdem korrelierte FLE in Bezug auf Lehrende positiv mit Nervosität und globale FLE-Werte wiesen einen negativen Zusammenhang mit dem mangelndem Selbstvertrauen der Schüler*innen auf. Weitere Ergebnisse zeigten, dass bestimmte Aspekte von FLCA und FLE mit Variablen verknüpft werden konnten, die soziodemographische Merkmale und Lernergebnisse der Schüler*innen widerspiegeln. Die vorliegende Studie stützt auch weitgehend die Behauptung, dass sich verschiedene Gruppen von Lernenden in Bezug auf ihre FLCA- und FLE-Werte unterscheiden. Zusammenfassend lässt sich sagen, dass sowohl positive als auch negative Emotionen eine wichtige Rolle im Lernprozess spielen. Ein Bewusstsein für das unvermeidliche Vorhandensein beider Emotionen sowie für ihre Quellen und Auswirkungen würde Lehrpersonen und Schüler*innen helfen, nicht nur die negativen Einflüsse von FLCA zu verringern, sondern auch FLE im Englischunterricht zu fördern.

9.3. FLCAS (8-item version)

“To what extent do you agree with the following statements?

Strongly disagree/ Disagree /Undecided/ Agree /Strongly agree [...]

1. Even if I am well prepared for FL class, I feel anxious about it
2. I always feel that the other students speak the FL better than I do
3. I can feel my heart pounding when I'm going to be called on in FL class
4. I don't worry about making mistakes in FL class (reverse-coded)
5. I feel confident when I speak in FL class (reverse-coded)
6. I get nervous and confused when I am speaking in my FL class
7. I start to panic when I have to speak without preparation in FL class
8. It embarrasses me to volunteer answers in my FL class”

(Dewaele & MacIntyre 2014: 274)

9.4. FLES (21-item version)

“To what extent do you agree with the following statements?

Strongly disagree/ Disagree /Undecided/ Agree /Strongly agree

1. I can be creative
2. I can laugh off embarrassing mistakes in the FL
3. I don't get bored
4. I enjoy it
5. I feel as though I'm a different person during the FL class
6. I learnt to express myself better in the FL
7. I'm a worthy member of the FL class
8. I've learnt interesting things
9. In class, I feel proud of my accomplishments
10. It's a positive environment
11. It's cool to know a FL
12. It's fun
13. Making errors is part of the learning process
14. The peers are nice
15. The teacher is encouraging
16. The teacher is friendly
17. The teacher is supportive
18. There is a good atmosphere
19. We form a tight group
20. We have common “legends”, such as running jokes
21. We laugh a lot”

(Dewaele & MacIntyre 2014: 273)

9.5. Questionnaire (SoSci Survey)

Seite 01

Fragebogen zu Emotionen im Englischunterricht

Sehr geehrte Teilnehmerin!
Sehr geehrter Teilnehmer!

Vielen Dank für deine Mithilfe an dieser Studie. Es geht dabei um **deine persönlichen Erfahrungen und Gefühle** beim Englischlernen. Deshalb gibt es keine falschen Antworten.

Alle Informationen, die du in deinen Antworten weitergibst, können später deiner Person nicht zugeordnet werden. Sie sind **anonym**. Das heißt, deine Antworten werden NICHT für deine Note in Englisch oder in einem anderen Fach herangezogen. Die Daten werden vertraulich behandelt und nur für meine Masterarbeit an der Universität Wien verwendet.

Das Ausfüllen dieses Fragebogens dauert etwa 10 bis 15 Minuten. Für den Erfolg der Studie ist es wichtig, dass du den Fragebogen **vollständig** ausfüllst und keine der Fragen auslässt.

Solltest du Fragen haben, schreibe mir gerne eine E-Mail.

Vielen Dank für deine Teilnahme an meiner Studie!

Seite 02

Emotionen im Englischunterricht*

Lies die Aussagen und **kreuze an**, welche der Antwortmöglichkeiten auf **deine Gefühle und Erfahrungen im Englischunterricht** zutrifft. Die erste Aussage (0.) ist ein Beispiel.

		Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll- kommen zu
0.	Ich kann kurze Präsentationen halten.					X

	stimme gar nicht zu (--)	stimme eher nicht zu (-)	keines von beiden (~)	stimme eher zu (+)	stimme vollkommen zu (++)
Mir wird in Englisch NICHT langweilig.	☐	☐	☐	☐	☐
Englisch macht mir Freude.	☐	☐	☐	☐	☐
Ich bin ein wertvolles Mitglied des Englischunterrichts.	☐	☐	☐	☐	☐
Die Lehrpersonen motivieren uns.	☐	☐	☐	☐	☐
Ich bin stolz auf das, was ich im Englischunterricht erreiche.	☐	☐	☐	☐	☐

Ich fühle mich im Englischunterricht wohl.	☐	☐	☐	☐	☐
Es ist cool Englisch zu können.	☐	☐	☐	☐	☐
Die Lehrpersonen sind freundlich.	☐	☐	☐	☐	☐
Englisch macht Spaß.	☐	☐	☐	☐	☐
Die anderen Kinder im Englischunterricht sind nett.	☐	☐	☐	☐	☐
Die Stimmung im Englischunterricht ist gut.	☐	☐	☐	☐	☐
Wir lachen viel im Englischunterricht.	☐	☐	☐	☐	☐
Die Lehrpersonen unterstützen uns.	☐	☐	☐	☐	☐

	stimme gar nicht zu (--)	stimme eher nicht zu (-)	keines von beiden (~)	stimme eher zu (+)	stimme vollkommen zu (++)
Ich habe immer das Gefühl, dass die anderen Kinder besser Englisch sprechen als ich.	☐	☐	☐	☐	☐
Ich kann spüren, dass mein Herz schneller schlägt, wenn ich im Englischunterricht an die Reihe komme.	☐	☐	☐	☐	☐
Ich mache mir KEINE Sorgen, im Englischunterricht Fehler zu machen.	☐	☐	☐	☐	☐
Ich fühle mich selbstbewusst, wenn ich im Englischunterricht spreche.	☐	☐	☐	☐	☐
Auch wenn ich gut auf die Englischstunde vorbereitet bin, fühle ich mich nervös oder angespannt.	☐	☐	☐	☐	☐

Ich bin nervös und verwirrt, wenn ich im Englischunterricht spreche.	☐	☐	☐	☐	☐
Ich gerate in Panik, wenn ich ohne Vorbereitung im Englischunterricht sprechen muss.	☐	☐	☐	☐	☐
Es ist mir peinlich, mich im Englischunterricht zu melden, um eine Antwort zu geben.	☐	☐	☐	☐	☐

*(übersetzt und adaptiert aus: Dewaele, Jean-Marc; MacIntyre, Peter D. 2014. "The two faces of Janus? Anxiety and enjoyment in the foreign language classroom".
Studies in Second Language Learning and Teaching 4(2), 237–274)

Seite 03

Klasse:

☐ 1A
 ☐ 1B
 ☐ 2A
 ☐ 2B
 ☐ 3A
 ☐ 3B
 ☐ 4A
 ☐ 4B
 ☐ 4C

Alter:

☐ 9
 ☐ 10
 ☐ 11
 ☐ 12
 ☐ 13
 ☐ 14
 ☐ 15
 ☐ 16

Geschlecht:

- ☐ weiblich
- ☐ männlich
- ☐

Kannst du auch noch andere Sprachen AUßER Deutsch und Englisch?

- ☐ ja
- ☐ nein

Seite 04

Meine Sprachen

- a) Welche Sprachen außer Deutsch und Englisch kannst du verstehen / sprechen / schreiben?
- b) Welche der Sprachen lernst du in der Schule oder in einem Kurs?

Schreibe die Sprachen in die Kästchen und kreuze dann die passenden Punkte an.

Hier siehst du ein **Beispiel**:

Diese Sprache...	... kann ich...				/ ... lerne ich.
	verstehen (lesen).	verstehen (hören).	sprechen.	schreiben.	
Beispiel: Japanisch		X	X		

Welche Sprachen außer Deutsch und Englisch kannst du verstehen (lesen / hören) / sprechen / schreiben?**Welche dieser Sprachen lernst du in der Schule oder einem Kurs?**

- 1.) Trage die Sprachen ein, die du kannst (außer Deutsch und Englisch).
- 2.) Kreuze bei jeder Sprache alles an, was stimmt.

Diese Sprache...	kann ich verstehe (lesen).	kann ich verstehe (hören).	kann ich spreche	kann ich schreibe	lerne ich.
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

Seite 05

Wie würdest du deine Englischkenntnisse SELBST einschätzen?

- ☐ Sehr gut (1)
- ☐ Gut (2)
- ☐ Befriedigend (3)
- ☐ Genügend (4)
- ☐ Nicht genügend (5)

Wie würdest du deine Englischkenntnisse im Vergleich mit deinen Mitschülerinnen und Mitschülern einschätzen?

- ☐ besser als viele
- ☐ mittel
- ☐ schlechter als viele

Welche Note hast du auf die letzte Englischschularbeit bekommen?

- ☐ Sehr gut (1)
- ☐ Gut (2)
- ☐ Befriedigend (3)
- ☐ Genügend (4)
- ☐ Nicht genügend (5)
- ☐ Teilgenommen

Welche Note hast du auf die letzte Englischschularbeit bekommen?

- ☐ Sehr gut (1) (Standard-AHS)
- ☐ Gut (2) (Standard-AHS)
- ☐ Befriedigend (3) (Standard-AHS)
- ☐ Genügend (4) (Standard-AHS)
- ☐ Nicht genügend (5) (Standard-AHS)
- ☐ Sehr gut (1) (Standard)
- ☐ Gut (2) (Standard)
- ☐ Befriedigend (3) (Standard)
- ☐ Genügend (4) (Standard)
- ☐ Nicht genügend (5) (Standard)
- ☐ Teilgenommen

Welche Note hast du im letzten Semesterzeugnis in Englisch bekommen?

- ☐ Sehr gut (1)
- ☐ Gut (2)
- ☐ Befriedigend (3)
- ☐ Genügend (4)
- ☐ Nicht genügend (5)
- ☐ Teilgenommen

Welche Note hast du im letzten Semesterzeugnis in Englisch bekommen?

- ☐ Sehr gut (1) (Standard-AHS)
- ☐ Gut (2) (Standard-AHS)
- ☐ Befriedigend (3) (Standard-AHS)
- ☐ Genügend (4) (Standard-AHS)
- ☐ Nicht genügend (5) (Standard-AHS)
- ☐ Sehr gut (1) (Standard)
- ☐ Gut (2) (Standard)
- ☐ Befriedigend (3) (Standard)
- ☐ Genügend (4) (Standard)
- ☐ Nicht genügend (5) (Standard)
- ☐ Teilgenommen

Bist du derzeit im Fach Englisch in „Standard“ oder „Standard-AHS“ zugeteilt?

- ☐ Standard
- ☐ Standard-AHS
- ☐ Integration

Anmerkungen

Gibt es noch etwas, dass du anmerken oder hinzufügen möchtest?

Letzte Seite

Vielen Dank für deine Teilnahme!

Ich möchte mich ganz herzlich für deine Mithilfe bedanken.

Deine Antworten wurden gespeichert, du kannst das Browser-Fenster nun schließen.

9.6. Languages mentioned by participants

- Albanian
- Arabic
- Azerbaijani
- Bengali
- Bisayan
- Bosnian-Croatian-Montenegrin-Serbian
- Bulgarian
- Chechen
- Chinese
- Dari
- Farsi
- French
- Greek
- Hindi
- Hungarian
- Italian
- Japanese
- Korean
- Kurdish
- Macedonian
- Mongolian
- Norwegian
- Pashtu
- Polish
- Punjabi
- Romanian
- Romany
- Russian
- Slovak
- Somali
- Spanish
- Tagalog
- Turkish
- Ukrainian
- Uzbek