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thank you...

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List of abbreviations

AMTB	Attitude/Motivation Test Battery
CALL	Computer Assisted Language Learning
CEFR	Common European Framework of Reference for Languages
DigComp	The European Digital Competence Framework for Citizens
DigCompEdu	The European Digital Competence Framework of Educators
EFL	English as a Foreign Language
ESL	English as a Second Language
EU	European Union
FLA	Foreign Language Anxiety
FLCAS	Foreign Language Classroom Anxiety Scale
FLE	Foreign Language Enjoyment
FLRA	Foreign Language Reading Anxiety
L1	First Language
L2	Second Language
SLSAS	Second Language Speaking Anxiety Scale
WAT	Writing Apprehension Test

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1 Introduction

Foreign Language Anxiety (FLA) is a phenomenon that was identified in the late 20th century when it was first coined by Horwitz et al. (1986). Since then, it has primarily been researched within a school context where language lessons happened in a traditional setting, which means that students and teachers are in an actual classroom. In such a setting, FLA is common among students, who report fear of being judged, panic about unprepared speeches, a feeling of shame when making mistakes, concentration issues as well as physical symptoms like heart palpitations or trembling (Horwitz et al. 1986: 126–130). Such behaviour traits could not only be observed in the students, but some instruments have also been designed that could help to measure the presence of FLA in the students. Among these are, for example, the Foreign Language Classroom Anxiety Scale (Horwitz et al. 1986) – which is the most popular one – the Second Language Speaking Anxiety Scale (Woodrow 2003), the Attitude/Motivation Test Battery (Gardner 1985), the methods of essay-writing (MacIntyre & Gardner 1991a), or journal diaries (Bailey 1991). These can be identified as the most commonly used instruments for measuring FLA in the language classroom until now. In general, FLA can affect any of the four language skills; however, it is most frequently related to speaking in the foreign language (Horwitz et al. 1986: 126).

In spring 2020, the teaching of foreign languages changed drastically: a global pandemic broke out which forced schools to close down and change their teaching mode to digital lessons with everyone being at home in front of their computer. This is a situation that had never happened before in such a way. So, some questions arose: What about FLA? Does it still exist in the digital learning setting? Is it higher or lower? Are there other factors contributing to the presence of this anxiety? Even though some previous studies exist that investigated the level of FLA in an online setting, these only happened in artificially designed settings where no one was *forced* to take part in the online lesson (e.g., Pichette 2009; Shen et al. 2013; Russell 2018). In these earlier studies, FLA was either not experienced in the online setting or not significantly different from the level of FLA in traditional classroom settings. Interestingly, more recent studies that focused on FLA in the online setting during the pandemic (e.g., Chiew 2020; Maqableh & Alia 2021; Maican & Cocoradă 2021; Harsch et al. 2021) often found that students indeed felt anxious, and sometimes even more anxious, compared to their traditional English lessons. However, there is no study so far that had a look at this phenomenon, specifically on the foreign language speaking anxiety, in the Austrian school context. Since I see this as a gap in the Austrian educational research area, I wanted to

investigate whether Austrian EFL students experienced foreign language speaking anxiety in their digital English lessons and whether differences between various student groups can be identified.

So, in order to find out about this, I asked myself the following research question:

In how far was foreign language speaking anxiety experienced by Austrian EFL students in their digital English lessons during the pandemic?

In order to answer this question, I conducted research with 146 Austrian EFL students of lower and upper secondary levels (i.e., years 7-11). With the help of a questionnaire and an adapted version of the foreign language classroom anxiety scale, I wanted to find out about the foreign language speaking anxiety experienced by these students in their digital English lessons during the pandemic and some possible factors related to this.

This thesis is structured as follows: First, there will be a theoretical introduction to the topic as such. This theoretical part is separated into three sections. In the first part, some general information about technology and teaching will be given. This includes a historical overview of how technology developed in the school context, benefits as well as downfalls of using digital media in teaching, and the digital literacy goals that are proposed by the European Union as well as the Austrian ministry. In the second part, information about my main topic, FLA, follows. Not only will I explain how FLA is defined and developed, but I will also give information on how this situation-specific anxiety impacts the learning of students, especially with regard to their speaking skills. Lastly, it is not only important to know what FLA is and how it shows up in students, but it is also relevant to know how I, as a teacher or researcher, can find out about the presence of this anxiety in students. Therefore, I will present some typical behaviour patterns that can help to identify FLA as well as instruments that can help to measure FLA. As my study is about the presence of FLA in digital English lessons during the pandemic, it seems to be of importance to mention the results of some previous studies that have focused on a similar topic. This will be the last chapter of the theoretical part before the empirical part concerning my study follows.

The empirical part is again divided into several sub-chapters. While the first few focus on presenting the research question and hypotheses, methodology and instruments used as well as the participants and procedure, the last few give a detailed overview of my results. In order to understand the results, a discussion follows in which my findings will be interpreted with reference to previous studies. This thesis is then ended with some implications that I could

draw from my results as well as a conclusion in which my main findings will be clearly summarised.

2 Teaching and Technology

2.1 History of technology in teaching

Today, technology shapes all sectors of the world, even the educational one (Bär 2019: 12). However, the use of technology in education is not something completely new, but something that has already existed for some decades now. Nevertheless, the implementation of digital media and also the understanding of how to use it has changed a lot (Dudeney & Hockly 2012: 533). The following chapter gives a brief overview of the development of technology and digital media use in language teaching.

Even though computers were already part of language teaching in the 1950s, it was only during the 1970s and 1980s that technology in teaching got popular and was of increasing interest. The early beginnings of this concept started with computers, first only at universities and from the 1980s onwards also in primary and secondary language teaching (Tafazoli et al. 2019: 31– 33). This is referred to as the *CALL era*, that can be divided into three main stages proposed by Warschauer and Healey (1998: 57): behaviouristic, communicative, and integrative. To begin with, the CALL era started off with behaviouristic CALL which was based on behaviourist learning concepts. This means that the focus was on “decontextualized exercises of the ‘drill and kill’ variety” (Dudeney & Hockly 2012: 534). In this stage, the learners were still quite passive regarding the digital media use as they simply consumed content from learning programs (Dudeney & Hockly 2012: 534). The second stage, referred to as communicative CALL, followed. This stage was based on cognitive theories whose emphasis was on language discovery, expression, and development (Warschauer & Healey 1998: 57). This means that the computer served as a guiding tutor for students to explore and to produce the language (Dudeney & Hockly 2012: 534). Text construction programs emerged during this phase (Warschauer & Healey 1998: 57) which allowed students to practice writing and situated language use (Dudeney & Hockly 2012: 534). As the social component of learning increasingly became important in language teaching, the communicative concept of CALL was criticised, and teachers focused more on authentic language use. This then led to the third stage, integrative CALL, where the focus was on the four language skills and on integrating technology more in the language learning process (Warschauer & Healey 1998: 58). The aim was to fully integrate technology into language

learning; so, interactions between students and computer-mediated communication were encouraged (Dudeney & Hockly 2012: 534).

At the end of these three stages, some technical advances happened, which also shaped how technology could be used for language learning. For example, synchronous tools emerged at this time which allowed learners to communicate with others around the world; however, at that time, this type of communication was still only possible via chat or e-mail. Furthermore, the WorldWideWeb developed, which gave teachers access to more learning materials and online content (Dudeney & Hockly 2012: 536). With the beginning of the new century, a major shift happened as Web 1.0 tools developed into Web 2.0 tools which allowed learners to socialise and interact with other learners from different countries via social media platforms, blogs, wikis, or podcasts (Tafazoli et al. 2019: 35). So, in general, via Web 2.0 tools, teachers and learners could collaboratively create language content (Dudeney & Hockly 2012: 358).

While in 2012, Dudeney & Hockly (2012: 540) mentioned mobile phones and tablets under the category of the future of technology in English Language Teaching (ELT), today, these devices are increasingly implemented in the English as a Foreign Language (EFL) learning context. Especially mobile applications appear to be quite popular in the mobile learning context of EFL (Klimova & Polakova 2020: 2).

Lastly, with the COVID-19 pandemic, e-learning programs and video-conferencing tools such as Zoom or MS Teams gained in popularity. Such video-conferencing tools can be described as tools that provide

the opportunity for a high level of real-time, students-to-students and students-to-instructor interaction in online learning environments [...] [offering] *virtual*, yet interactive learning experiences that are closer to what is possible in face-to-face learning environments. [original emphasis]

(Moallem 2015: 55)



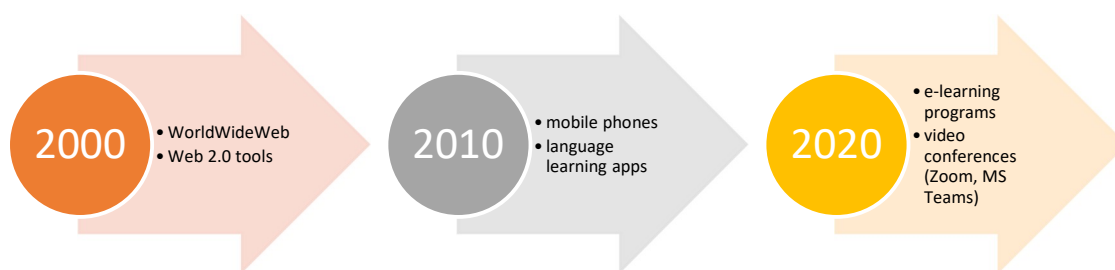


Figure 1: Timeline of the development of technology in language learning

Figure 1 gives a summarised overview of the most important steps in the development of technology use in language teaching and learning.

In brief, I could see that the use of technology in teaching has indeed changed as technical possibilities have developed over the years.

2.2 Potentials of technology in teaching

With such a booming use of technology in teaching, it must be assumed to be beneficial for the learning process. According to Burwitz-Melzer (2019: 34), current technologies bring a lot of advantages to the foreign language classroom.

Hence, the aim of this chapter is to describe some of the most important benefits and potentials of digital media in a language classroom.

Already in 1998, Warschauer and Healey (1998: 59) wrote about the benefits of implementing a computer in language teaching. They mentioned seven advantages: multimodal practice, individualisation in a large class, pair and small group work, fun aspect, various resources and learning styles, exploratory learning, real-life-skill-building in computer use. According to the two researchers, various language programs allow students to deepen their understanding of certain language aspects outside the classroom. So, technology makes practice and learning independent of time and space possible for learners, which contributes positively to a student's autonomous learning process. Furthermore, digital learning games were already popular at this time, which is why Warschauer and Healey (1998: 60) emphasised the positive impact of these on a learner's motivation to learn the language. Apart from these, the researchers were convinced that using digital media for certain activities could save a lot of preparatory time for the teacher. In addition, at the end of the 20th century, when computer-mediated communication was on the rise, students had the opportunity to easily communicate in a written way with others all over the world (Warschauer & Healey 1998: 63).

As technology developed in the 20th century, Web 1.0 and Web 2.0 tools can now be distinguished. Today, Web 2.0 tools are quite popular and they differ from Web 1.0 tools in that they “allow the active creation of information by users” (Motteram & Sharma 2009: 88) in contrast to the other tools that merely deliver information. So, one of the major benefits that Web 2.0 tools now bring to language teaching is that they offer social interactions in various ways: textually via blogs, wikis, or collaborative writing tools; orally via Skype; visually via video conferencing tools; or aurally via podcasts (Motteram & Sharma 2009: 88). These types of interactions also facilitate communicating with native speakers as students do not necessarily need to travel to an English-speaking country but simply can interact with international students via video-conferencing tools (Schmelter 2019: 218), which saves money and time and does not require a lot of organisation (Bechtel 2019: 27). Therefore, technology in language teaching seems to support authentic language exposure. In addition to this, Elsner (2019: 48) argues that using digital devices in the language classroom even increases the students’ oral engagement, which is of high relevance for learning a language.

Regarding authenticity, Bechtel (2019: 25) mentions that the internet is a fruitful source of authentic materials that could contribute positively to working with the actual schoolbook as topics could be further deepened or even current topics, such as ongoing political events in English-speaking countries that are often not part of the school book, can be introduced. Thus, by supporting the language classroom with materials from the internet, students engage with authentic language. Furthermore, on the internet, various videos exist that explain grammatical aspects; such videos could facilitate the comprehension of a grammatical aspect since the form and usage of the grammar are visualised (Bechtel 2019: 26). Additionally, the wide range of online materials is also beneficial as they are easy to access from anywhere at any time, it widens the possibilities for didactical choices, and these materials are usually without high costs (Teresevičienė et al. 2017: 181).

In general, technology-enhanced learning, and especially e-learning courses, tend to be more learner-oriented as they allow for more interaction, collaboration, project work, and autonomous control over the learners’ own learning process (Teresevičienė et al. 2017: 179). In online learning, students are required to work more independently and without less guidance by the teacher; therefore, using technology in teaching can indeed train a learner’s autonomy (Teresevičienė et al. 2017: 180). Online learning, like it happened during the COVID-19 pandemic, also brings quite a few advantages. Mukhtar et al. (2020: 29–30) conducted a survey in Pakistan to find out about the students’ and teachers’ perceptions with

regard to advantages and disadvantages of online learning. The most common benefits that were mentioned were flexibility and student-centeredness. Online courses were experienced as more flexible since they allowed the continuation of instruction even during challenging times, and time and money needed for traveling to the institution were reduced. Regarding student-centeredness, the students mentioned that following the lesson was more comfortable, and asynchronous teaching eased the students' learning process as they could rewatch a recorded lesson at any time. Maqableh and Alia (2021: 2) conducted a similar study and additionally found that safety is a major advantage of online learning, which, however, only relates to situations like those experienced during the pandemic where it was important to protect people from getting infected with the coronavirus.

In brief, as Burwitz-Melzer (2019: 36) states, using digital media supports all of the language skills to be taught: receptive skills profit as there is a wide range of digital texts, productive skills profit as authentic communication is possible via blogs or video-conferencing tools. Furthermore, online learning makes the learning process more flexible, increases learner autonomy, and is beneficial in challenging times, when face-to-face instruction cannot happen, occur.

2.3 Challenges and ethical concerns of technology in teaching

Despite these advantages, “technologies are not enough on their own to make a difference” (Motteram & Sharma 2009: 83). Even some years later when technical opportunities had already improved, Grünewald (2016) still formulated a similar statement:

Der bloße Einsatz digitaler Medien [führt] nicht zu einer gesteigerten Motivation oder zu einem effektiven Lernen [...] Entscheidend dafür ist die Auswahl des Lerngegenstands und dessen didaktisch methodische Aufbereitung.

[The mere usage of digital media does not lead to an increased motivation or to an effective learning process. [...] The choice of the topic and its didactic and methodical processing are decisive.]

(Grünewald 2016: 464)

So, the aim of the following chapter is to briefly present a few downsides as well as ethical aspects to consider.

2.3.1 Challenges

To begin with, Warschauer (2016: 29) points out that technology in teaching may have a negative effect on equality in education. His study mainly focuses on American students among whom inequality is relatively high. To exemplify this, he found out that especially out-of-school conditions such as parents, internet access, and income have an impact on the

access to technology at home. So, 91% of children with parents who have a college degree have access to Internet compared to only 74% children of parents with no college education. The educational degree of parents also shapes how children experience the use of new media and technology. A study in Philadelphia supports this claim as they found out that middle-class students use technology rather for research and reading in contrast to students from lower socio-economic backgrounds who merely opt for computer games (Neuman & Celano 2006: 193). Furthermore, Attewell and Winston (2003, cited in Warschauer 2016: 35) found out that students coming from a lower socio-economic background rather *consume* media whereas middle-class students actively *use* media. This may link back to the fact that students with wealthier backgrounds have access to more digital devices and therefore, greater experience with using technology (Barron et al. 2010: 186). Regarding school, Warschauer (2016: 42) summarises that social support is a crucial factor that influences students' access and effective use of media for learning. However, Bär (2019: 16) states that a school cannot demand families to possess appropriate digital devices at home. Thus, social differences among the students indeed seem to be an influencing and challenging factor regarding the use of technology for teaching and learning.

Another challenge related to students are out-of-class activities. As a teacher, it may be difficult to arrange such activities and ensure that students are actually participating in them (Albiladi & Alshareef 2019: 236). However, participation can also be a challenge in the actual online lesson as synchronous communication tools often only allow for one speaker at a time (Almusharraf & Bailey 2021: 1286), which may result in one person dominating the conversation, not all participants being able to share their thoughts (Chiew 2020: 63), or in misunderstandings if more than one participant speaks and it becomes unclear who is actually speaking (Harsch et al. 2021: 8). Another issue here could be that if students are sent into breakout rooms to communicate in small groups, the teacher can only enter one group at a time which means that students might only use the target language when the teacher is in the breakout room with them (Chiew 2020: 69). This may affect the communicative purpose of language teaching in a negative way.

In 2022, Tao and Gao collected various studies that dealt with teachers' experiences during the pandemic. In their article, they focused on the challenges that the language teachers were facing. To begin with, one major challenge for teaching during the pandemic were the students' emotions. According to various studies, most of the students experienced increased boredom and less motivation for online lessons compared to regular face-to-face lessons. But

not only the students' emotions posed a challenge for teaching online, teachers experienced quite challenging emotions as well. For most of the teachers, the online-teaching setting was completely new; so, they “felt untrained, marginalized, emotionally overworked” (Moser & Wei 2021: 26). Furthermore, teachers mentioned that student engagement was limited, it was not always clear whether the students understood the content, technical problems occurred, and, of course, teachers were not experienced in using technology properly (Tao & Gao 2022: 3). Regarding this aspect, Klippel (2019: 106) found that one major restriction in using technology for language teaching is the digital literacy of teachers. Apart from this, the great variety of materials that can be found online may be overwhelming for teachers as they need to evaluate the materials and find appropriate ones for a certain class and for the teaching purpose.

In addition to these challenges, teaching and learning online brings some health risks that should not be forgotten. Using digital media continuously could lead to social risks such as isolation, but also to physical and psychological risks as students experience a lack of movement, may have problems with concentrating, and experience increased stress due to being constantly available (Viebrock 2019: 275). A study by Maican and Cocoradă (2021: 14) focused on establishing students' emotions associated with online learning during the pandemic. In this study, the students also mentioned health issues such as increased stress, migraines, and concentration or attention problems. Students in a study by Harsch et al. (2021: 9) stated that they had more difficulties to concentrate in online courses and that they were more easily distracted. This phenomenon is commonly referred to as *Zoom fatigue*, which “describes the tiredness, worry, or burnout associated with overusing virtual platforms of communication” (Lee 2020: 38). Furthermore, an increased stress level may also be related to the increased workload, which was mentioned by participants in a study by Maqableh and Alia (2021: 6). The participants stated that in the online learning courses, classwork became homework and often the teachers gave more assignments compared to the traditional classroom setting.

To briefly summarise, it can be seen that technology and online teaching have many disadvantages that are especially related to inequality, lack of technical skills, limitations of technological tools, and, of course, physical and mental health risks.

2.3.2 Ethics

Not only challenges need to be considered when technology is used for teaching, but also ethical aspects. Thus, it is of high relevance to decide on rules that all digital participants

need to follow, especially concerning communication and behaviour in social media – a common name for these types of rules is *netiquette*. Furthermore, personal rights need to be protected (Bechtel 2019: 29). Regarding this, Palfrey (2016: 114) conducted a study to find out about the students' own concern about privacy in digital media. He found out that social scientists argue that young people indeed care about their privacy and their personal information in digital media; however, there is also research that shows that young people often lack sufficient knowledge about how to protect their personal data. With regard to this, some studies suggest that the more experienced young people are in using digital media, the more likely they are to engage in protective behaviour and privacy concerns (Grant 2007: 71). This may link back to the digital divide mentioned by Warschauer (2016) and could mean that especially young people from a lower-socioeconomic background struggle with protecting their privacy and personal information. Therefore, Palfrey (2016: 122) suggests that educational institutions and governments should emphasise teaching digital literacy to students, and also focusing on such skills related to privacy. In addition to this, Bär (2019: 16) emphasises that teachers or the educational institution should check data privacy and copyright law of learning platforms or apps before implementing them in the lesson. Due to the dramatic transition to online learning in 2020 when the pandemic started, Gacs et al. (2020: 385) wrote about the differences between planned online language education and crisis-prompted one. Concerning the ethical aspects, they state that carefully checking data privacy and security of certain tools is not possible in crisis-prompted online education; that is why they suggest that popular and commonly used tools should be preferred in such cases.

In brief, to prevent even more digital challenges, ethical aspects should be taken into account before teaching with technology. Especially those aspects that relate to data privacy and security, but also those related to online behaviour are of high relevance. One solution to this could be fostering digital literacy – an aspect that I will have a closer look at in the following chapter.

2.4 Digital Literacy Goals

As already mentioned in the previous chapters, digital literacy¹ seems to play a crucial part in using technology in education. Due to this, the European Union (EU) as well as Austria have developed competence frameworks, specifically relevant for the teaching context. This chapter serves to present and describe these frameworks.

¹ In education, digital literacy refers to the competences and skills that a student has to use and engage confidently with digital technologies but also to be safe online. Activities that require digital literacy range from socialising, gaming, learning or simply researching in the digital world. (unicef n.d.)

2.4.1 EU – Digital Competence Framework

In 2005, the research centre of the European Union aimed at developing a policy support by focusing on the potential of new technologies

to innovate education and training practices, improve access to lifelong learning and to deal with the rise of new (digital) skills and competences needed for employment, personal development and social inclusion.

(European Union 2018: 6)

Already in this statement by the EU, it can be seen that digital competences are indeed of utmost importance for different areas such as work, personal life, and society in general. It is also believed that today, digitalisation is one of the central drivers of development (BMDW 2021: 12). For this reason, the Joint Research Centre of the European Union developed The European Digital Competence Framework for Citizens (DigComp), which was first published in 2013, and then a revised version called DigComp 2.1, which was published in 2018. This current version contains eight rather than three proficiency levels and provides a more detailed description of these (European Union 2018: 6).

In general, this framework focuses on five competence areas with their accompanying competencies (21 in total):

1. Information and data literacy: citizens are able to browse, search, filter, evaluate and manage data, information, and digital content.
2. Communication and collaboration: citizens are able to interact, share and collaborate through digital technologies, to manage a digital identity as well as to know the netiquette.
3. Digital content creation: citizens are able to develop and integrate digital content and are aware of copyright and licenses.
4. Safety: citizens know how to protect devices, personal data, well-being, and the environment.
5. Problem-solving: citizens know how to solve technical problems and are able to use digital technologies in a creative way.

These competences are then measured according to the eight proficiency levels. Figure 2, taken from the DigComp 2.1 report by the EU, provides a clear overview of the levels and what they stand for.

Levels in DigComp 1.0	Levels in DigComp 2.1	Complexity of tasks	Autonomy	Cognitive domain
Foundation	1	Simple tasks	With guidance	Remembering
	2	Simple tasks	Autonomy and with guidance where needed	Remembering
Intermediate	3	Well-defined and routine tasks, and straightforward problems	On my own	Understanding
	4	Tasks, and well-defined and non-routine problems	Independent and according to my needs	Understanding
Advanced	5	Different tasks and problems	Guiding others	Applying
	6	Most appropriate tasks	Able to adapt to others in a complex context	Evaluating
Highly specialised	7	Resolve complex problems with limited solutions	Integrate to contribute to the professional practice and to guide others	Creating
	8	Resolve complex problems with many interacting factors	Propose new ideas and processes to the field	Creating

Figure 2: Eight proficiency levels of the DigComp 2.1 (European Union 2018: 13)

Figure 2 clearly illustrates that the cognitive demand, autonomy as well as complexity of the tasks increase as the proficiency level rises. The goal in digital literacy is to reach the level of the highly specialised (European Union 2018: 13).

While this digital framework is for all European citizens, another framework published by the EU exists that specifically focuses on the digital competences of teachers – DigCompEdu. A general description of the framework is provided by the European Union:

The European Framework for the Digital Competence of Educators (DigCompEdu) responds to the growing awareness among many European Member States that educators need a set of digital competences specific to their

profession in order to be able to seize the potential of digital technologies for enhancing and innovating education.

(Redecker & Punie 2017: 8)

This framework contains 22 educator-specific competences in six areas (see Figure 3):

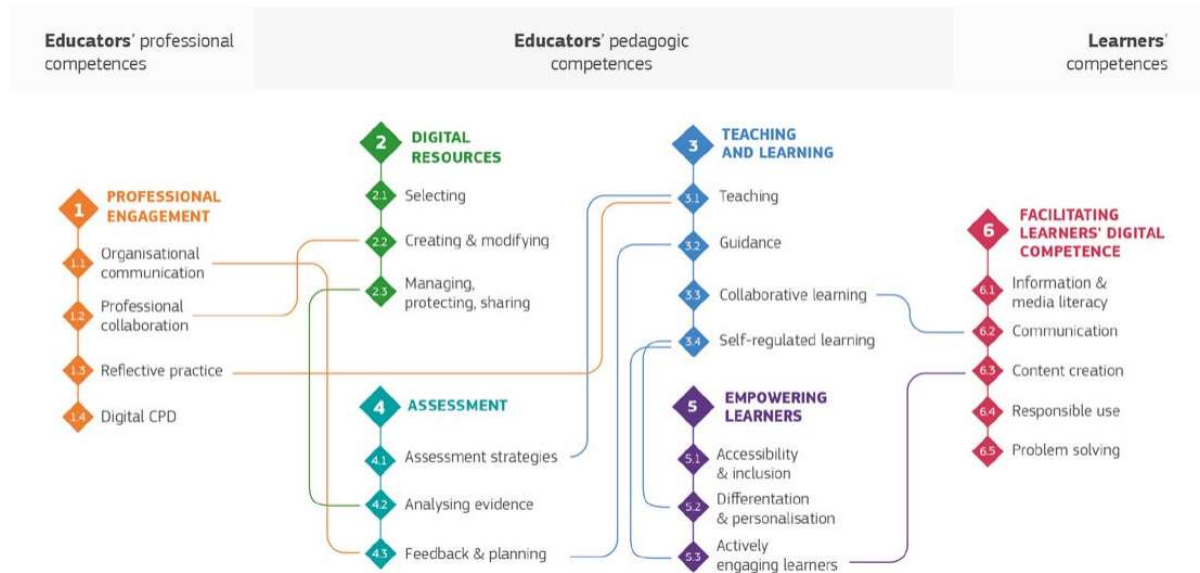


Figure 3: DigCompEdu areas and competences (taken from Redecker & Punie 2017: 16)

Similar to the DigComp 2.1, educators are also asked to progressively develop their skills according to proficiency levels. These levels are provided in the DigCompEdu but differ slightly to the ones in the European Framework for Citizens. The competence stages in the framework for educators are inspired by the Common European Framework of Reference for Languages (CEFR) and therefore range from A1 to C2. Such a classification of the competence levels was chosen because of a good and easy comprehension as the language levels are generally known and therefore are a good reference to understand one's own digital competences (Redecker & Punie 2017: 28). To make the competence levels specific to the DigCompEdu, they were labelled in a certain way (see Figure 4).

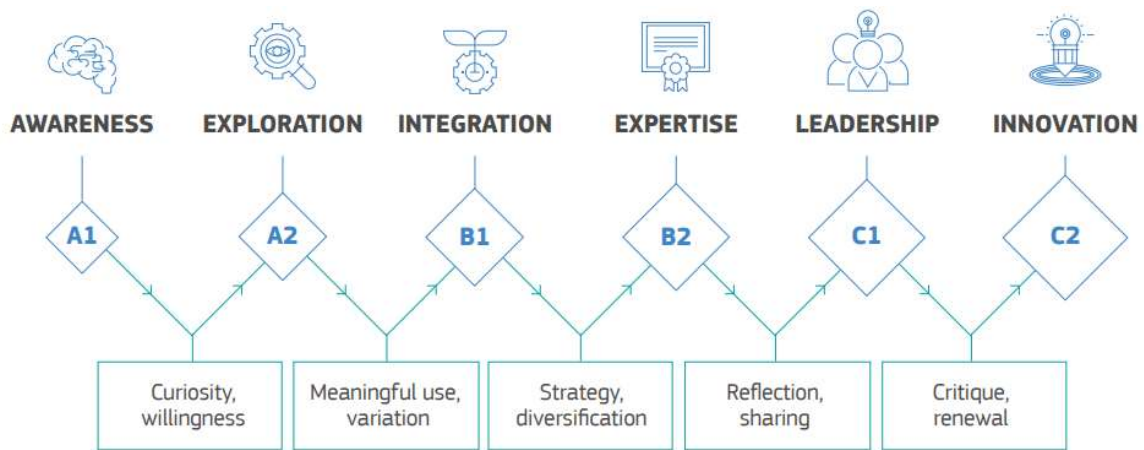


Figure 4: DigCompEdu competence levels (taken from Redecker & Punie 2017: 29)

2.4.2 Austria – DigComp 2.2 AT and 8-Punkte-Plan

In 2018, Austria developed its own version of the European Digital Competence Framework for Citizens based on the European DigComp 2.1. In the development process, the European DigComp 2.1 was first translated into the German language. In general, it should be as verbatim as possible; however, at some points, the German translation would have sounded strange, so, for better understanding, minimal changes were done here. Secondly, one competence area that was completely missing in the European framework was included in the Austrian version: the basics. This competence area describes the ability to understand digitalisation, to operate digital devices, and to access digital contents. Austrian researchers considered it fundamental to include such a basic competence area as these basics are crucial to develop further in any other competence area.

Regarding proficiency levels, the Austrian version includes eight competence levels. Other than the European framework, the Austrian framework suggests an overall literacy goal to reach. The Austrian ministry speaks of a digital everyday expertise and adults are expected to reach at least stages 3 or 4 in all competence areas to have such an expertise. Reason for this is that adults, and specifically parents, should be able to teach their children certain digital competences (BMDW 2021: 30).

Apart from this general framework for all citizens, Austria offers different concepts concerning digitalisation and education.

1. digi.komp

Since 2006, there has been an initiative called digi.komp-Initiative which provides digital competences and ideas for their realisation for different school grades (digi.komp 4, digi.komp8, digi.komp12). Similar to the European DigCompEdu, there

is also the *digi.kompP*, which outlines digital competences that teachers should possess (BMDW 2021: 18).

2. Verbindliche Übung Digitale Grundbildung [Compulsory subject digital education]

In 2018, the Austrian parliament implemented a new curricular subject called *Verbindliche Übung Digitale Grundbildung*, which is a compulsory subject for all students in lower-secondary school. In this subject, students not only learn how to use digital devices (digital literacy) but also how to behave in different media (media literacy) and how various political and societal areas are affected by digitalisation (political literacy) (BMDW 2021: 19).

3. Digitale Schule [Digital school]

In 2020, the then minister of education, Dr. Heinz Faßmann, came up with a concept called *Digitale Schule* which aims at establishing digitalisation in education. For this, he proposed the 8-Punkte-Plan [8-points-plan] that clearly presents the eight goals that should be reached (BMBWF 2020)

This idea of the digital school resembles what Bax (2003: 23) already proposed in 2003 regarding the future of technology use in education. He proposed that normalisation of technological innovation is the goal that should be reached. He described this concept as follows:

This concept is relevant to any kind of technological innovation and refers to the stage when technology becomes invisible, embedded in everyday practice and hence ‘normalised’. [...] Normalisation is therefore the stage when a technology is invisible, hardly even recognised as a technology, taken for granted in everyday life.

(Bax 2003: 23)

According to Bax (2003: 23), this stage was not yet reached at the beginning of the 21st century. The 8-Punkte-Plan proves that this stage still has not been reached in Austria, but it seems that this plan is a step further to reaching this goal.

2.4.3 Digital literacy in language courses

In general, digital literacy is a concept that concerns education and – as exemplified by Austria – can even concern specific subjects that focus on developing digital skills. So, why is digital literacy important for teaching and learning a language?

First of all, communication appears to be changing and continually developing due to digitalisation; therefore, language students should be prepared for these types of communication outside the learning context (Fandrych 2019: 60–62). Apart from this,

students should not only rely on automated grammar or spelling programs, which are popular in using technology for language learning, but if they choose to use them, students need the ability and skills to evaluate these tools according to their validity and trustworthiness (Klippel 2019: 107). Furthermore, teachers need certain skills in order to evaluate the various technological tools and formats that can enhance the language classroom according to their quality and relevance for the language course and the students' learning needs (Fandrych 2019: 66). So, a teacher who wants to use digital media in their language course is required to know the different tools and to know how to navigate these (Klippel 2019: 106). In addition to this, the Austrian curriculum also requires teachers to implement new media:

Informations- und Kommunikationstechnologien (IKT) sind auch im Fremdsprachenunterricht vielseitig zu nutzen (zB bei der Bearbeitung von Lehrinhalten, zur Schulung von Arbeitstechniken und im Rahmen der Führung von Portfolios).

[Information and communication technology (ICT) is to be used in a varied way in language classes (e.g., working with course contents, teaching of working techniques and as part of keeping portfolios).]

(RIS 2004)

So, even the law prescribes the usage of technology in language courses, which is another reason why fostering digital literacy might be beneficial for language learning.

To briefly summarise, I could see that there are multiple attempts and regulations to promote digital literacy among teachers and students. These have expanded and developed over the years as technology has become increasingly important in schools. As this study's focus is on foreign language anxiety experienced in an online learning setting, the next chapter aims at giving an introduction to the phenomenon to be investigated.

3 Foreign Language Anxiety

3.1 The definition of FLA

Anxiety is a psychological phenomenon that has already been studied and discussed for a long time (Kasap 2021: 477). In the *Dictionary of Psychology*, anxiety is referred to as “a stressful state resulting from the anticipation of danger” (Hayes & Stratton 2017: 17) which means that a person reacting to a certain threat experiences an unpleasant emotional feeling related to fear (Kasap 2021: 477). Such discomfort may result in symptoms like tension, apprehension, nervousness, and constant worry (Horwitz et al. 1986: 125). In general, there are three components that contribute to how an individual deals with the anxious state. These components include physiological reaction, a cognitive aspect, and the discomforting

experience of the subject. However, suffering constantly from anxiety can even lead to anxiety disorders (Hayes & Stratton 2017: 17–18).

Even though anxiety disorders among students have not yet been studied as thoroughly as they have been among adults, there are still various types of anxiety disorders that may appear in children and young adults, too (Viezel 2011: 631). In fact, this group seems to be prone to anxiety since children, and especially adolescents, go through lots of mental, physical, and emotional changes that intensify anxious behaviour. Moreover, school-related factors such as bullying, fear of failure, and teachers might lead to the development of anxiety (Sharma & Sarkar 2020: 278). Among some anxiety disorders, Generalised Anxiety Disorder, Social Phobia, and Specific Phobia can be found that seem to be somehow related to an educational context.

Anxiety can exist in any classroom situation; however, it is assumed that in relation to language learning, emotions play a special and central role since language is a social factor that contributes to the students' identity (Arnold 2020: 4). Thus, one phenomenon that appears to be of high relevance in language education is FLA, a phenomenon whose study was pioneered by Elaine Horwitz and her colleagues in 1986. Horwitz et al. (1986: 128) define FLA explicitly as “a complex of self-perceptions, beliefs, feelings, behaviours related to classroom language learning arising from the uniqueness of the language learning process”. Therefore, they classify FLA as a situation-specific anxiety since it is an emotional state that only occurs in a language learning context (Horwitz et al. 1986: 125).

Even though Horwitz et al. (1986) coined the concept of FLA, the roots of anxiety in a language learning context can be traced back to MacIntyre and Gardner (1991a: 297) who first defined language anxiety as an “undifferentiated, negative affective response to some experience in language class” which, when experienced repeatedly, results in anxiety that is exclusively associated with the language class. This means that environments other than the language classroom do not trigger the anxious emotional response in students (Gregersen & MacIntyre 2014: 4). Before FLA was classified as a situation-specific anxiety, Spielberger's distinction between state- and trait-anxiety was considered as an important perspective on the experience of anxiety in a language classroom. Trait-anxiety refers to the general characteristic of an individual to be anxious in any kind of situation (Spielberger 1983, cited in MacIntyre & Gardner 1991b: 87). Even though trait-anxiety has been shown to have negative effects on cognition, emotion, and behaviour, it was not sufficient for defining the anxiety experienced in language classrooms as students with the same trait-anxiety score may

have different levels of anxiety in various situations (MacIntyre & Gardner 1991b: 88). Strongly related to trait-anxiety is state-anxiety which is the experience of anxiety in a specific situation (Spielberger 1983, cited in MacIntyre & Gardner 1991b: 90). However, this perspective on language anxiety was criticised as well since the actual source of the anxious feeling is not focused on. A more adequate alternative to the state-trait anxiety perspective was then the idea of a situation-specific anxiety. This perspective allowed a more concrete description of the anxiety-provoking situation and thus the actual source of the anxiety could be traced back more easily (MacIntyre & Gardner 1991b: 90). In a later study, MacIntyre and Gardner (1991c: 530) investigated if language anxiety is related to other anxieties. In their study, they considered 17 different forms of anxiety with the help of the corresponding measure scales. Their findings further supported their previous assumption that FLA may not be related to other types of anxiety and can therefore be distinguished from them.

Already at the beginning of the 21st century, the Council of Europe (2001: 161) recognised the affective variables that are involved in language learning and indeed influence it. Among these various emotions that are involved in the language learning process, anxiety can be considered as a rather negative emotion that debilitates the learning process (Simons & Smits 2020: xii). Gregersen and MacIntyre (2014) also argue that language anxiety negatively impacts the acquisition, retention, and production of the language to be learned.

Understanding language anxiety, therefore, plays an important role for language teaching as this phenomenon hinders learners to acquire the foreign language appropriately which then results in an inability to perform in class. This may be incorrectly evaluated by the teacher as a general inability, which further provokes an anxious state in the student. Related to this, Horwitz et al. (1986) list three types of performance anxieties:

First, there is communication apprehension, which can be described as “a type of shyness characterized by fear of or anxiety about communicating with people” (Horwitz et al. 1986: 127). This type of anxiety may also be related to social phobia which is either generalised or occurs in specific situations. Children suffering from social phobia state “unstructured social interaction requiring conversational skills” as anxiety-provoking. School can thus be listed as one of the triggers of this type of fear; however, as attending school cannot be avoided (Viezel 2011: 632–633), learners may refuse to speak or simply remain silent in class (Horwitz et al. 1986: 127).

A second type is test anxiety, which originates from a fear of failure that is already predominant in test-anxious students if they do not achieve perfect test results (Horwitz et al. 1986: 127). 24 years later, Cassady (2010: 7–8) suggests that test anxiety may be driven by recent trends of high-stakes tests and their influence on the academic future of those who take them. However, Zeidner (2014: 270) criticises the uniformity of test anxiety and therefore suggests that different types of test-anxious students need to be recognised since the reasons why students feel anxious in a test situation can vary broadly.

A third type is the fear of negative evaluation, which manifests itself in that students are constantly afraid of making a bad impression and, thus, are worried about the opinion of others. This type of anxiety differs from test anxiety as it refers to any evaluative situation, not just test situations, that is feared by students, for instance, job interviews or other social events (Horwitz et al. 1986: 128).

3.2 Factors contributing to FLA

FLA is a complex phenomenon whose roots need to be understood in order to help students overcome it. As a situation-specific anxiety, FLA only occurs when the individual learner is exposed to or has to use the foreign language.

In general, MacIntyre (1999: 31) gives a clear explanation of how FLA develops:

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

(MacIntyre 1999: 31)

This means that at first, the anxiety experienced within a foreign language classroom may not yet be associated with foreign language use and, thus, does not have a debilitating effect on language learning. However, if this anxiety occurs repeatedly in connection with the foreign language classroom, the student internalises this anxious feeling and experiences it whenever he/she encounters the specific foreign language.

Even though the development of FLA seems straightforward, there are some factors that contribute to anxiety in the language classroom. Young (1991: 427) analysed previous studies that had been conducted in relation to FLA and concluded six potential sources:

- 1) personal and interpersonal anxieties
- 2) learner beliefs about language learning
- 3) instructor beliefs about language teaching

- 4) instructor-learner interactions
- 5) classroom procedures
- 6) language testing

To begin with, (inter-)personal factors seem to be the most common sources of FLA.

In 1999, Onwuegbuzie et al. (1999) investigated factors that contribute to FLA. In their study, 210 university students of various language courses participated. Their findings suggest that there are seven variables that predict FLA significantly. Among these, students' self-perceptions seem to be the most dominant sources of FLA. The researchers found out that the self-perception is comprised of three aspects that correlate negatively with anxiety: students' expectation of their overall achievement in foreign language courses, perceived self-worth, perceived scholastic competence. They interpreted this negative relationship as follows:

(1) high levels of foreign language anxiety cause students to lower their course expectations, perceived self-worth, and perceived scholastic competence; (2) negative course expectations, perceived self-worth, and perceived scholastic competence elevate their levels of foreign language anxiety; (3) a recursive relationship occurs in which high/low levels of foreign language anxiety/self-perceptions cause students to decrease/increase their levels of anxiety/self-perceptions, which, in turn, increase/decrease [sic] levels of anxiety/self-perceptions [...] (4) one or more other variables that are associated with both foreign language anxiety and self-perceptions [...] moderate the anxiety/self-perceptions relationship.

(Onwuegbuzie et al. 1999: 228)

Moreover, in relation to a student's characteristic traits, the study shows that students with a high perceived self-esteem experience a lower level of FLA (Onwuegbuzie et al. 1999: 229). Previously, Young (1991: 427) also mentioned low self-esteem and competitiveness as the most significant factors that result in a high anxiety level. Perfectionism also seems to be an important factor in relation to the experience of FLA. Gregersen and Horwitz (2002: 563) suggest that perfectionist students wish to produce flawless language, even like a native speaker. Instead of possibly embarrassing themselves by not using perfect language, these students remain silent until they are "certain of how to express their thoughts". These high, and even unrealistic expectations on themselves, provide a good source for the development of FLA. This relationship between anxiety and perfectionism may have already been reflected by Horwitz et al. (1986: 130) who found out that "anxious students are afraid to make mistakes in the foreign language." The study from 2002 seems to confirm these interrelations:

When compared with students who were not as concerned about making mistakes, the perfectionist students reported greater distress regarding their mistakes and

rated their mistakes as more important. They also lamented their mistakes to a greater degree and reported greater concern over the negative reactions of others and a greater desire to keep their mistakes a secret.

(Gregersen & Horwitz 2002: 568)

Thus, perfectionism as a character trait in students makes a predictive factor for the development of FLA.

Another personal factor is age. Onwuegbuzie et al. (1999) found that older students experience a higher level of anxiety as their cognitive abilities decrease. Especially time plays an important role since older learners work more slowly and may feel under pressure when time is involved in a certain task. Furthermore, the students' exposure to a foreign language has been shown to influence the experience of language anxiety (Onwuegbuzie et al. 1999: 229–230). This means that the earlier children learn a foreign language, the less anxious they are about learning other foreign languages. In contrast to this, however, a negative history of learning a foreign language increases the feeling of anxiety in the foreign language classroom. Such a negative history includes, for example, encountering major difficulties and therefore getting bad grades in the target language (Chen & Chang 2004: 284). In addition, more recent studies found that gender seems to contribute to the presence of FLA, too, since female students tend to experience the foreign language classroom as slightly more uncomfortable than their male classmates do (Kiński 2021: 117). Moreover, some studies suggest that students of specific cultural backgrounds, for example, Japan, China, Korea, are more prone to anxiety than others (Woodrow 2006; Horwitz 2016; Djafri & Wimbarti 2018). These findings may all be confirmed by a study by Li et al. (2021) in which the effects of personal emotional intelligence and classroom environment on the experience of FLA were investigated. The study suggests that the experience of FLA is indeed “more self-performance-oriented and more related to self-factors” (Li et al. 2021: 8).

To some extent related to perfectionism in students are learner beliefs about language learning, which also contribute highly to the development of anxiety in the foreign language classroom. In general, students' beliefs root in previous experiences made within the language classroom (Lightbown & Spada 2017: 90–91). According to Horwitz et al. (1986: 127), “students believe that nothing should be said in the foreign language until it can be said correctly and that it is not okay to guess an unknown foreign language word”. Furthermore, students in this early study thought that first, they need to understand every word in the foreign language so that they are able to understand the message and second, they are constantly under surveillance and the teachers' correction reflects a failure (Horwitz et al.

1986: 130). Later, Young (1991: 428) supports these statements by saying that unrealistic beliefs about language learning lead to frustration and stress, and eventually cause the development of FLA.

Another quite important predictor of FLA is the role of the teacher. Young (1991: 428) states that teachers who think that constant error correction is necessary, or that students should not work in groups because the teacher then lacks control, and those teachers who are in favour of teacher-centred teaching as well as those who consider themselves more as a ‘drill sergeant’ than a facilitator are more likely to contribute to the students’ development of FLA. Apart from this, the teaching style also seems to influence the presence of FLA. Teachers who prefer to hold lectures, speak fast, and avoid using the blackboard make the learning process more difficult for students which results in a higher tendency to anxiety (Chen & Chang 2004: 283).

Closely related to the teachers’ and learners’ beliefs about language learning is the teacher-learner interaction that plays an important role in the experience of anxiety, too. A study by Hashemi (2011: 1814) shows that the unequal status and perceived inferiority may cause stress and anxiety in the students. Furthermore, more recent findings of Djafri and Wimbarti (2018: 12) suggest that students perceive it negatively when teachers make discouraging comments about errors or are too dominating and when the teaching methods do not make the language content comprehensible. Kiński (2021: 118) conducted a study specifically on the role of the teacher with regard to the presence of FLA among students. Surprisingly, he found that the teacher’s behaviour does not affect the learners’ experience of FLA as much as it does the experience of foreign language enjoyment (FLE). In fact, he suggests that the teachers’ behaviour can even be ignored as a factor that causes anxiety in the foreign language learner.

Concerning classroom procedures, Young (1991: 429) states that especially oral tasks contribute to the development of anxiety. Djafri and Wimbarti (2018: 13) support this assumption with their findings. In this study, students mentioned as classroom-related factors situations when they had to do an unprepared presentation, when their name was called by the teacher, and when they were asked to explain a certain material to the others. Students in an earlier study by Woodrow (2006: 322) also reported giving oral presentations and performing in front of classmates as stressors of their in-class anxiety. Even though Li et al. (2021: 6–8) found that the classroom environment contributes less to the experience of FLA than the personal emotional intelligence, they suggest that students who enjoy the English learning

classroom tend to be less anxious about learning and using the foreign language. This also aligns with Djafri and Wimbarti's (2018) statement that

only after the development of attitudes and emotions regarding the language learning experience, language anxiety may occur. Based on the argument, it is inferred that the problem is more emphasized in the language learning experience, such as teacher's methodology or classroom procedure, instead of the students. Besides, the environment where the learning process is being conducted is also an important factor to be considered in relation to the occurrence of foreign language anxiety.

(Djafri & Wimbarti 2018: 13–14)

As a last point, language testing plays a major role in the experience of FLA. Young (1991: 429) outlines that the anxiety level increases if the students are not familiar with the test format and if the test tasks are unclear. Furthermore, if a test does not reliably measure what students were asked to study, they feel frustrated and anxiety is highly possible to arise.

In brief, there are multiple factors that influence the students' experience of FLA. Even though it may be difficult to fully know which factors are at hand, being aware of the different stressors is important for adapting the teaching style accordingly.

3.3 The impact of FLA

In terms of evolution, the experience of various emotions is considered to be beneficial as it helps human beings to adapt to a specific situation: while negative emotions give the body an extra adrenaline rush in order to enable a fight or flight response in a dangerous situation, positive emotions evoke a flourishing mood if joyful actions happen repeatedly. Despite their beneficial function, emotions can also have a disadvantageous effect on a person's life. In the context of education, FLA is considered to be such a debilitating emotion as it negatively impacts a successful learning of the foreign language (Bielak & Mystkowska-Wiertelak 2020: 21).

Zeidner (2014: 275) states that anxiety affects cognition at various stages of information processing. However, before I turn to Zeidner's assumptions, it seems of importance to mention that already in the late 1980s, MacIntyre and Gardner (1989) proposed a similar concept of stages specifically referring to the language classroom. They suggested that language learning happens at the stages of input, processing, and output. Due to the fact that anxious students are easily distracted, their attention span is limited and the initial processing of new information is poor at the input stage. This means that experiencing anxiety makes it difficult for the student to grasp the information presented. At the processing stage, the effect of anxiety depends on the complexity of the task at hand. If students are to complete a

relatively easy activity, the effect of anxiety is quite low. In contrast, if a task is perceived as challenging by the students, anxiety interferes with the processing. Such an interference causes, for instance, problems with rehearsing new vocabulary due to a mental blockage. At the output stage, interference of anxiety manifests itself in struggles with retrieving previously learned knowledge (MacIntyre & Gardner 1989: 255). In this case, students may have processed and mentally stored information, but language anxiety makes them ‘forget’ it (Gregersen & MacIntyre 2014: 4). A later study by MacIntyre and Gardner (1991c) confirmed these previous findings from 1989.

Figure 5 below, taken from Zeidner (2014), shows the problems Zeidner suggests that anxious students face during the different information processing stages in more detail.

Table 14.1 Information Processing Deficits in Anxious Students	
Deficit Area	Brief Description
<i>I. Information Encoding</i>	
1. Encoding Difficulties	Anxious individuals report experiencing more encoding difficulties than their low anxious counterparts.
2. Interpretive Bias	Anxious individuals exhibit selective attentional bias favoring threat.
3. Restricted Range of Cue-Utilization	Anxious individuals attend to fewer environmental features and have a narrow range of cue-utilization.
4. Distractibility	Anxious students have difficulty in concentrating on cognitive tasks. They typically find themselves dividing their attention between the multiple requirements of the complex task and various task-irrelevant activities.
<i>II. Information Storage and Processing</i>	
5. Short-Term Storage	Anxious arousal causes a reduction in cognitive capacity devoted to the task, thus reducing resources for short-term memory tasks in anxious students. Working memory is particularly affected.
6. Long-Term Storage	Anxiety may impair retention of information in long-term memory, leading to greater retention loss over time.
7. Depth of Processing	Anxiety leads to a relative emphasis on processing superficial features of verbal stimuli at the expense of deeper semantic processing. Anxious students tend to focus on shallow or physical features rather than deep or semantic features of stimuli.
8. Elaboration and Rehearsal	Anxious students fail to adequately rehearse or elaborate upon information.
9. Conceptual Organization	Anxiety may shallow the encoding and organization of semantic material by reducing the quality of elaborations and associative paths. Anxious students cluster less on free recall tasks than those lower in anxiety for taxonomic categories, acoustic categories, and associative categories.
10. Strategic Processing	Automatic or highly learned operations are relatively unaffected by anxiety, whereas complex tasks requiring rehearsal or strategic operations will be hindered by arousal.
11. Language Processing	Anxious students often have vocabulary deficits and are deficient in their comprehension and reading efficiency. Anxiety is selectively detrimental to the efficiency of text-level processes, such as those involving integrating information across sentences.
12. Decision Making	High anxious students have difficulty in absorbing decision-relevant information, tend to have difficulty in scanning of alternatives, and adopt more cautious decisional criteria.
13. Metacognition	Anxious subjects are often deficient in metacognitive knowledge, including knowledge and executive processes used to control learning.
<i>III. Information Retrieval and Production</i>	
14. Interference and Anxiety Blockage	Anxious subjects suffer from cognitive interference and are self-preoccupied with task-irrelevant information.
15. Information Retrieval	Anxiety impairs retrieval of material and thus lowers performance during social-evaluative encounters.

Figure 5: Deficits experienced by anxious students at the three information processing stages. Table taken from Zeidner (2014: 276).

As can be seen in Figure 5, information processing, according to Zeidner (2014), is also divided into three primary stages: information encoding, information storage and processing, information retrieval and production. Experiencing anxiety may interfere with cognition at each of these stages. Figure 5 suggests that at the first stage, anxious students seem to lack focus, to be easily distracted, and to experience difficulty with concentrating on cognitive tasks. During the processing stage, anxiety seems to negatively impact , long-term memory. Furthermore, anxious students tend to have difficulty processing the information adequately so that, related to language processing, vocabulary and comprehension in general are affected. At the last stage, which requires students to actively use the knowledge they have gained, anxiety interferes with the performance of students. Due to a mental blockage caused by anxiety, students experience an inability to retrieve their knowledge which results in a lower performance achievement (Zeidner 2014: 276). In short, it can be seen that FLA interferes differently with the learning process at the three stages.

Anxiety is an emotion that can be categorised under the heading of ‘achievement emotions’ that are specifically experienced in academic achievement situations such as classroom learning, self-study, and tests (Pekrun et al. 2002: 93) and directly influence the achievement outcomes (Pekrun 2006: 317). Even though the relationship between anxiety and achievement was still underexamined in earlier times, Horwitz et al. (1986: 127–127) already found out that the experience of anxiety influences the students’ performance. For example, they observed that anxious students refrain from using difficult constructions in the target language which may lead to an inaccurate assessment by the teacher. 30 years later, Cakici (2016: 193) also found out that anxiety negatively interferes with performance since highly anxious participants in his study showed a lower academic achievement than participants with a low or no language anxiety. In 2020, Molchanova (2020: 425) also examined the correlation between FLA and achievement. Interestingly, her findings suggest that students suffering from a medium anxiety level show a lower achievement compared to high anxiety students whose achievements were better.

Even though FLA is primarily related to oral performance and is believed to negatively impact oral skills (Horwitz et al. 1986: 126), further research has shown that it affects other language skills, such as reading, writing, and listening, too. Closely related to, and even necessary for oral communication, are listening skills which is why anxiety experienced during listening tasks is also impeding (Gregersen & MacIntyre 2014: 8). A study by Elkhafaifi (2005: 211) reveals that students who generally show a high level of FLA are prone

to have a higher level of listening anxiety. It is often the students' belief that they need to understand every word which causes them to be anxious when they need to listen in the foreign language (Scarcella & Oxford 1992, cited in Gregersen & MacIntyre 2014: 8). Serraj and Noordin (2013) investigated the relationship between foreign language listening anxiety and the students' listening performance. Their study affirms that the effect of foreign language listening anxiety on the students' listening comprehension is quite problematic as it indeed results in poor listening performance (Serraj & Noordin 2013: 7). Regarding the receptive language skills, reading is, surprisingly, affected by language anxiety as well. Reading performance is often assumed to be less influenced by anxiety than other skills since it is a 'silent' task that students do individually and where they do not have to interact with other students (Saito et al. 1999: 202). Nevertheless, Saito et al. (1999) first proposed the existence of foreign language reading anxiety (FLRA). A later study by Chow et al. (2021) confirms a correlation between reading anxiety and reading comprehension. According to them,

[a] strong correlation between reading trait anxiety and reading state anxiety was found, indicating that individuals with high general anxiety toward reading likely have a high level of anxiety during reading.

(Chow et al. 2021: 6)

They also found that experiencing anxiety during a reading task negatively influences reading comprehension as worries about reading "may weaken the attentional control and the inhibition of irrelevant stimuli" (Chow et al. 2021: 6). Critical thinking skills also seem to be quite important for acquiring reading skills and successfully understanding a reading task. This is why Aghajani and Gholamrezapour (2019) conducted research concerning the relationship between foreign language reading anxiety and critical thinking skills. According to their findings, a strong correlation between these two exists. While a high level of critical thinking skills decreases the level of reading anxiety (Aghajani & Gholamrezapour 2019: 233), a high level of anxiety can impede the critical thinking process due to a mental blockage caused by anxiety (Zohreh & Mahdi 2015: 33). Apart from oral performance, the second productive skill, writing, is also affected by anxiety. Even though a certain level of writing anxiety might have a motivating effect on students (Balta 2018: 234), Blasco (2016: 32) states that writing anxiety hinders the writing process in that anxious students do not feel confident about their writing which might result in grammatical and structural problems. Balta (2018: 237) examined the relationship between writing anxiety and the students' writing performance. Her findings confirm that the experience of anxiety interferes significantly with the writing performance as participants with a middle or high anxiety level had lower writing

scores and a poor expression in writing compared to the participating students with a low anxiety level. Moreover, writing anxiety can result in a mental blockage where the learner feels an inability to write. Consequently, anxious writers tend to avoidance behaviour which is expressed by procrastinating and postponing the writing assignment. In contrast to this, writing anxiety can also result in excessive perfectionism where the anxious student tries to write a perfect text which, however, causes even more stress and worry (Ryan 2002: 43, cited in Cone 2018).

While the experience of anxiety in the language learning process is mostly considered to negatively impact learning, there is also some evidence that anxiety can have a facilitating effect on learning. Being anxious prior to a test or an oral task can provide the learner with a balance of motivation and focus that helps the student to succeed. To distinguish this type of anxiety from the debilitating type, researchers use more neutral terms (Lightbown & Spada 2017: 85), for instance, the word *tension* (Spielmann & Radnofsky 2001). Dörnyei (2005: 198) also makes a distinction between facilitating and debilitating anxiety. According to him, the first one is considered the affective component of anxiety which he calls *emotionality*. The second one is called *worry* and refers to the cognitive component of anxiety.

In short, FLA appears to have a significant influence on a student's learning process, be it in a debilitating way or a facilitating one. While high anxiety usually leads to deficits and negative interferences in learning, language achievement, and the performance in the various skills, a certain level of anxiety can also motivate a student and even lead to successfully mastering tests and tasks in the foreign language.

3.4 FLA in relation to speaking

From previous studies, it is already known that language anxiety can indeed have a negative impact on the overall achievement in the foreign language classroom. Even though all four language skills are affected by language anxiety (see chapter 3.3), Horwitz et al. (1986) found that speaking and listening are primarily affected. They even state that “difficulty in speaking in class is probably the most frequently cited concern of the anxious foreign language students” (Horwitz et al. 1986: 126). Having analysed the experiences that university students shared at the Learning Skills Center in Texas, Horwitz et al. (1986: 126) mentioned that students do not have major problems with prepared speeches in contrast to role-play situations which make them ‘freeze’. Furthermore, some of these students reported a constant rumination on what they should have said in class. Related to this is the fact that students often realise their mistakes some time after the anxiety-provoking situation; for example, oral

exercises may cause the anxious learner to ‘forget’ a certain grammar item, which results in spelling and syntactic errors; however, only due to the nervousness provoked by the speaking situation.

A recent study by Zuniga and Simard (2022: 7) seems to confirm these statements from the 1980s as they found out that anxious speakers tend to have more difficulty finding their words in the planning phase as they speak in a second language (L2). The researchers conducted a study to find out how the emotional experience of FLA and the cognitive variable of attention interact with the oral output in the L2. Participants in this study were aged around 28 years and all considered themselves rather proficient in their second language. From what the researchers observed, the participants experienced a moderate level of FLA. In order to find out about the quality of the speech production and whether it is influenced by FLA, they had a look at the self-initiated self-repairs of participants (Zuniga & Simard 2022). It is believed that self-monitoring processes are related to emotions as students shift their attention on self-presentation rather than on linguistic concerns when they are producing some oral output (MacIntyre & Ayers-Glassey 2020: 172). Zuniga and Simard (2022) notice that there is a significant correlation between self-repairs and the experience of FLA. For anxious L2 speakers it seems to be more difficult to find the right words during speech production than for non-anxious speakers, which, therefore, results in increased self-repairs and self-related cognition. The researchers furthermore suggest that

speaking being an attention control activity, it may be that the narrowing effect of state FLA on attention interferes with the efficient shifting of attention between underlying speech production processes, more specifically with processes related to pre-articulatory lexical access.

(Zuniga & Simard 2022: 7)

In brief, their study has enormously expanded the understanding of FLA and how individual cognitive capacities influence speech production in the second language.

In addition to this, self-repairs are listed among the various communication strategies suggested by Dörnyei and Scott (1997: 191). Communication strategies, in general, seem to be an important aspect of oral communication; thus, Grzegorzewska (2015: 305–306) conducted a study on the relation between anxiety and the use of oral communication strategies. She investigated if anxious and non-anxious language learners make use of communication strategies differently. Her study findings indicate that anxious and non-anxious students indeed show different strategic behaviours in oral communication. First, compared to non-anxious students who try to get their message across even when they

encounter difficulties, anxious students in general rather use an avoidance strategy. This means the anxiety that learners experience prevents them from actively using the foreign language. Apart from this, suffering from FLA impedes students to make use of communication strategies: the study reveals that anxious students use fewer of them than their non-anxious counterparts do.

Woodrow (2006) also conducted a study on the relationship between FLA and second language oral performance. Apart from this, she also considered the major causes of L2 speaking anxiety. Her project was based on the assumption of a dual conceptualisation of second language speaking anxiety: FLA experienced in the classroom and FLA experienced in out-of-class communication. With the help of a specifically developed quantitative measure tool, namely the Second Language Speaking Anxiety Scale (SLSAS), Woodrow (2006: 321) identified two types of foreign language anxieties related to speaking:

- Some students in her study stated that they did not feel prepared enough; thus, experiencing a lack of practice which is related to a skills deficit type of anxiety.
- Other students felt that previously learned material could not be recalled, which is the result of information retrieval anxiety.

While the first type is not discussed in any other study related to speaking anxiety, the second type seems to be in accordance with the study by Zuminga and Sirmand (2022) showing that FLA negatively impacts oral speech production in that mentally stored knowledge cannot be accessed due to the experience of anxiety. However, the skills deficit type of anxiety may be further explained by Cheng, Horwitz and Schallert (1999: 438) who identified that there are different anxieties in a language classroom related to the four specific skills. Thus, speaking anxiety represents a language-skill-specific anxiety which means that some students may not be anxious about performing oral tasks while others are, depending on their individual experiences and emotions in relation to the language skill.

Regarding the specific speaking situations that trigger anxiety, it is interesting to see that Woodrow's (2006) findings seem to contradict the findings of Horwitz et al. (1986). While students in the latter study felt alright about prepared speeches but unprepared talk, as it happens in discussions, provoked their speaking anxiety (Horwitz et al. 1986: 129), participants of the former researcher rated oral presentations as the highest anxiety trigger and oral group discussions as the lowest trigger (Woodrow 2006: 321). Even though these

findings are quite contradictory, and it is questionable which findings to follow, Tanveer (2007) seems to have a possible explanation by saying that

some language teachers believe that students try to overcome their anxiety by trying to remember the presentation stuff and by rehearsing it, and then they bring another pressure on themselves by trying to remember what they have rehearsed and feel probably stressed because they cannot remember everything.

(Tanveer 2007: 42)

Furthermore, Woodrow (2006: 321) found out that cultural aspects highly influence the level of anxiety that students experience in relation to talking in the foreign language classroom. Among such cultural aspects, she identified that especially Japanese, Korean, and Chinese participants in her study mentioned a higher level of speaking anxiety.

A later study by Mak (2011) then concentrated on learners of English as a second language (ESL) in a Chinese context. In this study, she investigated factors contributing to the in-class speaking anxiety by using the Foreign Language Classroom Anxiety Scale (FLCAS) and six questions based on the prior pilot study. The researcher identified nine factors that seem to be relevant in relation to speaking anxiety. First, the number one factor identified by factor analysis via the FLCAS is speech anxiety and the fear of negative evaluation. Then, Mak (2011) analysed the six items that seemed to be of importance, especially for a Chinese ESL context. Among these factors, this study also lists speaking in front of the class without preparation as the most anxiety-triggering factor (Mak 2011: 209), which would conform to Horwitz et al.'s (1986) findings. Furthermore, being corrected when speaking, inadequate wait-time, and not being allowed to use the L1 in a foreign language classroom are other factors that provoke speaking-in-class anxiety among EFL Chinese students. However, inadequate wait-time, for example, seems to be a factor that is specifically related to the Chinese EFL classroom as the researcher suggests that Chinese students usually need longer wait-time to speak than European students due to group unity which is an important aspect of the Chinese culture (Mak 2011: 210–211). Horwitz (2016: 73) also emphasises that FLA differs in various cultural groups. One example that she gives is Korean students who may feel anxious speaking English in front of an older person due to the cultural inappropriateness of younger people talking in the presence of older ones.

A study conducted by Gkonou (2011: 276) seems to confirm that classroom anxiety correlates highly with speaking anxiety in the second language. Her findings suggest that the English language classroom, in general, can have a negative impact on the students' attitude towards speaking in the classroom. More specifically, the teacher may play an important role here as

his/her classroom management could lead students to feeling inadequate as learners. This then increases the speaking anxiety as the individual learner constantly tries to produce flawless oral output due to fear of negative evaluation and peer judgement.

To summarise, experiencing FLA may affect spoken production differently from learner to learner: either students ‘freeze’ and become unable to produce any oral output and therefore simply avoid the speaking situation or they use rather fragmented speech and produce non-fluent and hesitant talk. Additionally, anxious students’ oral production is often characterised by mistakes since their anxiety causes them to ‘forget’ linguistic aspects related to grammar and vocabulary.

3.5 Identifying FLA among students

Since the experience of FLA differs from student to student and from culture to culture, it may sometimes be too complex to identify the presence of language anxiety with the help of instruments. Apart from this, using qualitative or quantitative measure tools could even distort the students’ feeling of anxiety in the language classroom (see chapter 3.6). However, there is a certain behaviour in an anxious student that can help a teacher to detect a possible existence of FLA without using questionnaires or doing interviews. FLA can be identified on four levels: physical, emotional, cognitive, and interactional. While these four distinctive categories serve to recognise the symptoms of anxiety independently, they are in fact dynamically interrelated (Gregersen & MacIntyre 2014: 6).

First, cognition usually works more slowly than physiology which is why students show automatic physical reactions triggered by certain situations (Gregersen & MacIntyre 2014: 7). For instance, students may not be able to fully concentrate, become forgetful, sweat, start trembling, and have heart palpitations (Horwitz et al. 1986: 126), which are symptoms similar to those of general anxiety (Viezel 2011: 635). Gregersen and MacIntyre (2014: 6–7) state that it is not clear whether the physical experiences lead to the negative thoughts of failure or if it is the other way around; however, they believe that anxious students’ reactions in general “are coordinated between cognition, emotion and physiology”. In a study of 2005, Gregersen (2005: 393–394) further identified non-verbal behaviour that is typically shown by anxious students: anxious students use fewer facial expressions, limiting the brow movement and smiling; eye contact with the teacher tends to be shorter and less direct; body posture is rather closed and tense; hands are primarily used for self-touching or manipulating objects instead of enhancing communication; back-channelling (e.g. nodding) and other interactive gestures occur rarely; bouncing, jiggling, and tapping feet are typical.

On the emotional level, anxious students show constant insecurities, panic, feel embarrassed about volunteering in class, worry a lot about being left behind in class or about making mistakes, ruminate about past-events in class, ‘freeze’ when their name is called or when they have to do a role-play, and are afraid of being laughed at either by colleagues or the teacher (Horwitz et al. 1986: 126–130). Furthermore, anxious students tend to show nervous laughter (Young 1991: 430). According to Bailey (1983, cited in Young 1991: 430), anxious students are highly competitive, often compare themselves to other classmates and to their own high educational standards, are overly concerned about their grades, and wish to out-perform their classmates. Apart from this, MacIntyre and Gardner (1993: 9) found out that the experience of FLA negatively correlates with the experience of motivation in the language classroom. While highly motivated language learners tend to be less anxious, highly anxious students show a decreased level of motivation. Concerning the students’ learning behaviour, there are two possible reactions. On the one hand, students avoid the situation that causes the experience of anxiety, thus any situation related to the foreign language. This could manifest in not attending the language class, procrastinating, postponing assignments, or even avoiding studying for the language class at all. The students’ intention by doing so is to ease their feeling of anxiety. On the other hand, anxious students are prone to overstudy. Due to their perfectionism and fear of making mistakes, anxious students want to compensate by studying even more. However, this may not always result in what these students were striving for since their performance might remain the same despite the compulsive effort (Horwitz et al. 1986: 126–127).

On the cognitive/linguistic level, it is clear that language anxiety negatively affects the second language proficiency of students (MacIntyre & Gardner 1994: 301). Horwitz (2001: 121) suggests that it is important to distinguish between the impact of anxiety on the learning process or on the language performance since it is not always easy to say whether anxiety interferes with learning and thus influences the achievement, or if it simply causes learners problems to display the knowledge they have. Previously, MacIntyre and Gardner (1994) found similar results in their study as they state that “anxious students have a smaller base of second language knowledge and have more difficulty demonstrating the knowledge that they do possess”. Nevertheless, there are various linguistic aspects that can be considered as related to FLA. Horwitz et al. (1986: 126) mention that anxious students find it difficult to discriminate the sounds and structures of the foreign language or to fully understand the meaning of a message in the foreign language. Furthermore, students tend to ‘forget’

linguistic elements, such as words or grammar points, in anxiety-provoking situations even though they know them.

As a last point, students' anxiety can also be manifested on a social level, which Leary (1982, cited in Young 1991: 429) categorises as disaffiliative behaviour and image-protection behaviour. Anxious students who show characteristics of the first type of behaviour are less involved in social interactions, which means that they are less likely to participate in discussions, allow for more silent periods that they refuse to break, and they tend to speak shorter when they have to speak in front of an audience. Furthermore, Leary suggests that image-protection behaviour "may serve to protect an image of the person as friendly, agreeable, polite, interested, and even sociable, without incurring any social risks" (Leary 1982: 114, cited in Young 1991: 430). Typical behaviour patterns include frequent smiling and nodding as well as seldomly interrupting others (Leary 1982, cited in Young 1991: 429). Additionally, anxious students prefer sitting in the last row, avoid participating in class activities, and even refuse attending class (Horwitz et al. 1986: 130).

In brief, it appears that it is not always necessary to fall back upon official instruments to measure the presence of FLA among language learners as there are multiple physical, emotional, linguistic, and social behaviour patterns that anxious students show.

3.6 Instruments for measuring FLA

Even though there are these certain behaviour patterns that can help a teacher to identify anxiety within the foreign language learner, it could still be useful to prove the presence of FLA with the help of measure tools. So far, a number of tools that can be used for different purposes have been designed.

To begin with, in 1985, Gardner (1985) developed the Attitude/Motivation Test Battery (AMTB). This instrument seems to be of importance in the field of language learning research since it not only focuses on examining linguistic aspects of language learning but also non-linguistic ones, such as language learning interest or the wish to continue studying a language – so in general, it was developed to evaluate affective variables that are related to second language learning. The test battery was developed in the context of English-speaking students learning French in Canada; thus, the items used in this battery are primarily related to learning French as a foreign language. The battery consists of 19 sub-tests which are concerned with different aspects of language learning, one of which is French Class Anxiety.

All these sub-tests use different assessment formats (7-point Likert scale, Multiple Choice test, semantic differential scales); however, the test that is of interest for this thesis is the French Class Anxiety test which uses the Likert scale ranging from *strongly disagree* to *strongly agree* for the following five items:

1. It embarrasses me to volunteer answers in our French class.
2. I never feel quite sure of myself when I am speaking in our French class.
3. I always feel that the other students speak French better than I do.
4. I get nervous and confused when I am speaking in my French class.
5. I am afraid the other students will laugh at me when I speak French.

This sub-test aims at measuring the degree of discomfort while participating in the French class. Even though the reliability of the total test battery is quite strong with a coefficient of 0.85 (Gardner 1985: 2–5), there are some aspects to consider when using it. First, it is likely that students answer in a way that they feel is ‘correct’ or wished for; thus, results should be interpreted with caution. Furthermore, Gardner (1985: 1) proposes that “[c]hanging the setting, the language or the general socio-cultural milieu in which the language programme exists might necessitate major changes in the items to make them meaningful and relevant”.

In 1986 then, the most popular measuring tool, the Foreign Language Classroom Anxiety Scale (FLCAS) was developed by Horwitz et al. In 1983, students at the University of Texas were first invited to participate in a support group in which topics such as language learning difficulties, effective learning strategies, and anxiety management practices were discussed. The aspects and experiences reported by the students in these groups helped to design the FLCAS. In general, the scale is intended to examine whether FLA is experienced or not, as well as to find out about the severity of its presence. The scale consists of 33 items that examine FLA as a situation-specific anxiety since they focus on its three dimensions communication apprehension, test anxiety, and fear of negative evaluation. The presence of FLA can be identified with items such as “I never feel quite sure of myself when I am speaking in my foreign language class” whereas its absence can be measured via statements like “I feel confident when I speak in foreign language class”. The items are presented on a 5-point Likert scale ranging from *strongly agree* to *strongly disagree* that students need to fill in. In previous pilot testing, Horwitz et al. (1986) identified that anxious students share some characteristics that are reflected in the FLCAS.

The scale was then first administered among 75 university students taking introductory Spanish classes. Students' responses confirmed that speaking anxiety is common which is also indicated by various items. Moreover, the scale helped to find out that students are afraid of making mistakes, being less competent as well as not understanding all language input (Horwitz et al. 1986: 129–130). Even though the FLCAS has been identified as reliable since its Cronbach alpha coefficient is quite strong with 0.93 (Horwitz et al. 1986: 129), there are some aspects to consider when using this measure tool. First, the FLCAS seems to measure FLA related to oral skills, i.e., speaking and listening; thus, anxiety that stems from other aspects of language learning is probably not identified with the help of this scale. Secondly, cultural aspects need to be considered since the FLCAS was developed and validated in an English-speaking American context. Therefore, the scale does not measure anxiety triggers that may be experienced within a certain culture. A factor related to the cultural aspect is the learning context, for example, teacher support or teaching methods, that should not be forgotten when using the FLCAS. As a last point, the proficiency level of students should also be taken into account when using the FLCAS. It seems that beginners' anxiety is related to different aspects of communication than that of advanced learners. These considerations help to understand how to use the Foreign Language Classroom Anxiety Scale appropriately as FLA can be experienced differently among specific learners and their learning environment (Horwitz 2016: 72–74).

MacIntyre and Gardner (1991a) then introduced a method that shows how anxiety develops in the language classroom and gives information about the specific anxiety triggers experienced by students: the technique of essay-writing. Their initial idea behind developing this method was that asking someone to reflect on their attitudes may even alter their perceptions. Therefore, they intended to manipulate the anxiety level in that students were required to focus on either positive or negative experiences with language learning which they should write down in a half-page essay. This technique was first administered in an introductory French class, meaning that participants had beginners' French skills. Having analysed the essays written, MacIntyre and Gardner (1991a) found out that students who were asked to write about a negative experience were very likely to report situations that require them to speak. In contrast, those who were asked to write about positive experiences mentioned being confident in understanding the language input and making themselves understood. Using this essay-writing technique, MacIntyre and Gardner (1991a) established that avoiding anxiety-provoking experiences in a language classroom can alter the students' self-perceptions as well as their anxiety level in the language classroom (MacIntyre & Gardner 1991a: 297–303).

Another instrument that seems quite useful in finding out about students' experiences in a language classroom are journal diaries. Bailey (1991: 61) was the first to highlight the potential of diaries used for language learning. She suggests that diaries can be kept either by teachers or learners; however, she mainly focused on the ones used by students. A first definition of diary studies was given in 1983 by Bailey and Ochsner (1983):

A diary study in second language learning, acquisition, or teaching is an account of a second language experience as recorded in a first-person journal. The diarist may be a language teacher or a language learner -- but the central characteristic of the diary studies is that they are introspective: The diarist studies his own teaching or learning. Thus he can report on affective factors, language learning strategies, and his own perceptions -- facets of the language learning experience which are normally hidden or largely inaccessible to an external observer.

(Bailey & Ochsner 1983: 189, cited in Bailey 1991: 60)

Bailey (1991: 62–63) stresses that only keeping a journal diary does not result in any valuable information; thus, it is of high importance that the reported data – the diary entries – are later interpreted and analysed, either by the writer himself or an independent person. Analysing the learners' introspection gives important knowledge of aspects of language learning which usually cannot be observed from the outside. Thus, journal diaries appear to be a valuable instrument for researching and understanding language acquisition (Gkonou 2013: 55). However, there are also some issues arising with this method that should be taken into account when using diaries. The first and foremost concern is subjectivity since diaries always only reflect the perceptions of the individual diarist. Thus, it can be difficult to draw objective and generalisable conclusions (Fry 1988: 164) even though that is what quantitative research aims at. Bailey (1991: 71), however, seemed to be able to find similar diary entries to her own ones when she was taking a French course and wrote her own diary entries. Having analysed her diary and those written by ten other learners, she found various comments about the feeling of competitiveness and anxiety in the language classroom. Thus, it seems that looking at learning diaries from a specific view can indeed lead to comparative results. Another issue that may come up with the use of diaries is the quality of the entries. Some learners may not give detailed descriptions or insights or lack a profound reflection of their experience, so, the credibility of such diaries appears to be insufficient (Bailey 1991: 79–80). Furthermore, the point in time when the perceptions of a situation are recorded may be problematic. The longer the delay in retrospection lasts, the bigger problems with remembering could arise. On the contrary, if introspection happens – doing a task and recording one's thoughts simultaneously –, the diarist may feel overwhelmed, and their processes are negatively affected as the workload is increased (Fry 1988: 159–160).

In addition to the tools so far, since MacIntyre and Gardner (1994) theorised that language anxiety may arise at three different stages – input, processing, or output – they developed three different scales in order to measure the level of anxiety at each of these stages:

- Input Anxiety: This scale measures the anxiety experienced when information in the second language is given.
- Processing Anxiety: This scale measures the anxiety experienced when learning and thinking in the second language.
- Output Anxiety: This scale measures the anxiety experienced when speaking or writing in the second language.

Each of these scales consists of six items. The researchers' aim with this newly developed scale was to extend previous measure tools that solely focused on measuring anxiety at the output stage. The scale was first used with Canadian university students studying French as a second language in their first year. Results indicated that only measuring anxiety at the output stage may be ignoring the already existing and highly influencing anxiety at earlier stages in the learning process. Thus, this scale proved the interrelatedness of anxiety experienced at the different stages of language learning (MacIntyre & Gardner 1994: 288–301).

Lastly, in 2003, Woodrow developed a similar tool to the FLCAS, namely the Second Language Speaking Anxiety Scale (SLSAS) which was specifically created to measure speaking anxiety. It is a questionnaire consisting of 12 items that reflect specific communicative settings, i.e., in-class and out-of-class, interlocutor variables such as number and status of speakers and whether they are native or non-native English speakers, and the nature of communication, i.e., initiating and responding in oral interaction. The items are also presented on a 5-point Likert scale ranging from *not at all anxious* to *extremely anxious*. In general, this measure tool proofed the existence of a dual conceptualisation of anxiety since it focuses on the oral communication in a classroom and outside a language classroom. This SLSAS is also considered to be quite reliable with a score of 0.94 calculated based on the Confirmatory Factor Analysis which is thought to be better than the alpha coefficient (Woodrow 2006: 313–317).

To summarise, I can see that measuring the existence or the level of FLA can happen via various instruments, each focusing on different aspects of the anxiety.

4 FLA and online language courses

The previous chapter focused on describing the phenomenon of FLA in a traditional face-to-face learning environment. However, as the COVID-19 pandemic has considerably changed the way that languages are taught by switching to online classes, it is indeed of interest to know how FLA is related to online-learning. The present thesis also focuses on the anxiety level of online language learners; therefore, this chapter serves to present relevant studies related to this topic, that have already been conducted.

Compared to the traditional classroom, keeping eye-contact and establishing emotional rapport in distance learning can be quite challenging, even in synchronous settings such as video conferences (Teresevičienė et al. 2017: 178). One of the main reasons for this is that technical issues such as “choppy audio, frozen screens and poor Internet connection” interrupt the delivery of mimics and gestures (Almusharraf & Bailey 2021: 1285). This may influence the learning atmosphere in a negative way. However, popular Web 2.0 tools are seen as an effective way to create virtual communities where teachers and students can interact which is important for students to have a feeling of belonging to a group of fellow participants (Teresevičienė et al. 2017: 178–179). Such tools provide an opportunity for synchronous computer-mediated communication, which allows authentic speaking practice in the foreign language (Almusharraf & Bailey 2021: 1286). Nevertheless, there are also studies that argue that students believe online courses to be more anonymous and to be less interactive, which may be the reasons why they choose online courses over face-to-face courses (Pichette 2009: 78). In addition to this, there is also a study in which participants consciously chose the online format for giving a presentation with the belief that the online mode reduces their speaking anxiety (Braun 2017: 11).

One study that seems to be of relevance regarding the speaking anxiety in relation to technology is a study by Sosas (2021: 967) that focused on teaching speaking with the help of technology. In this study, it was investigated how the use of technology affected the teaching of speaking skills. Apart from building rapport, increasing fluency and accuracy, and building confidence, the participants also mentioned that the use of technology for teaching speaking eased their anxiety and apprehension. As a possible reason for these results, the researcher proposed that technology does not require face-to-face interaction which may increase a student’s anxiety when having to perform a speaking task. Also interesting is the students’ feeling of increased confidence in their speaking performance due to technology which, as they perceived it, helped them overcome performance anxiety. In this study, the technology

allowed the students to practice speaking before they actually had to perform the task, which then had a positive impact on their speaking confidence.

An earlier study that shows us how FLA is experienced in online courses regardless of a pandemic is by Pichette (2009) who conducted a study specifically focusing on the comparison of anxiety profiles of traditional classroom and distance language learners. In his study, he wanted to find out whether learners show different anxiety profiles depending on the learning setting as well as depending on the learning experience. Three measurement tools were used to measure the anxiety profiles of the participants: the FLCAS for measuring the general language anxiety, FLRAS for measuring foreign language reading anxiety, and the WAT (Writing Apprehension Test) for measuring foreign language writing anxiety. The participants in this study were 186 French-speaking students of English or Spanish as a second language. 79 of them attended distance online courses, the other 107 attended traditional classroom courses. The anxiety measures showed no statistical differences between the distance learners and the classroom learners which indicates that in this study, anxiety profiles did not differ among the different learning settings, in contrast to Sosas' (2021) findings. In addition to this, the researcher found out that for distance learners the anxiety level decreases the more experienced the learners are in language learning. Focusing on three different anxiety types, he, however, found that at least writing anxiety appears to be lower in distance courses (Pichette 2009: 79–86). With regard to experience, Shen et al. (2013: 16) also found out that students who are less experienced in using technology for learning, or who are, in general, not used to online courses, may be more anxious about interacting with others in an online setting. Bailey et al. (2017: 34) investigated the relation between L2 writing anxiety and the use of technology. In their study, they did not find significant differences in the anxiety profiles of online students and traditional students; however, they found differences in some reasons that students gave for their anxiety since online students mentioned that their anxiety stemmed from the online learning environment as they encountered difficulties navigating the course website.

Another more recent study independent of the pandemic exists, in which Russell (2018) wanted to find out whether a pedagogical intervention could help students to reduce their language anxiety in an online course where they had to orally interact with native speakers. 33 language students of Spanish participated in this study. In the beginning, they were assigned to a peer support group in which they shared their thoughts and beliefs about the online language learning process. During the semester, the students had to meet four times with a

native speaker partner via the videoconferencing tool TalkAbroad. For these meetings, the conversation partners were provided with guiding questions related to topics that were dealt with in the course. The students' answers in the peer support groups were then examined. There the researcher found out that at the beginning of the course, the language anxiety regarding the online course was quite high among the students. Their anxiety especially stemmed from the oral task as some of their comments show:

I feel very anxious when it comes to foreign language. I feel less anxious with an online class, but when I learned we have the TalkAbroad conversations, I became more anxious.

As far as the TalkAbroad goes, I am so scared of it that I didn't even DO the first one.

I do not like posting oral work for the course in Spanish. Speaking in front of others is definitely one of my biggest fears. Even just imagining someone watching my [sic] speak in Spanish (even like posting a video of myself to get graded) makes me nervous. I have experienced a lot of foreign language anxiety while in college.

These comments show that at the beginning of the course, the students were rather anxious about the online oral tasks. However, in this study, the researcher also asked the participants to fill in the FLCAS before and after the intervention. The results of these questionnaires clearly indicated that the anxiety level decreased (Russell 2018, cited in Russell 2020: 343–344), but the reasons for these results were not investigated in this study; so, it is not possible to say whether the students felt more comfortable with the online format, if they got used to the online environment, or if the practice simply helped them to feel less anxious (Russell 2020: 344). Interestingly, a study by Maqableh and Alia (2021: 8–10) revealed that students indeed felt more anxious in the online courses during the pandemic and that their anxiety level actually increased the longer the online learning lasted. The actual reasons were not mentioned in their study; however, the increased anxiety may be related to the fear of losing an academic year due to the pandemic or the increased difficulty of exams and assignments during the pandemic.

Maican and Cocoradă (2021: 14) investigated students' emotions and perceptions associated with online language courses during the pandemic. Some negative emotions that the students mentioned were shyness and shame for their low proficiency in speaking the foreign language. These feelings emerged due to the decreased interaction with the teacher and with their colleagues in online courses and further resulted in perceived difficulty and fear of speaking in the foreign language. Harsch et al. (2021: 3) also argue that learner anxiety

usually increases in unfamiliar learning environments such as the online setting which, ultimately, negatively impacts the online interaction. In order to solve this, the authors suggest an increased use of breakout-rooms in online teaching as these rooms allow the students to communicate more with their peers which establishes a comfortable learning environment in the foreign language course (Maican & Cocoradă 2021: 18). Not explicitly linked to FLA, but still somewhat important in this regard, is the fact that students do not feel comfortable with switching on their cameras during online classes, as a study by Chiew (2020) shows. Students may feel constantly under surveillance, not only by their colleagues but also by their teacher, who may interpret not looking into the camera as inattentiveness (Chiew 2020: 69–70). Such a feeling of discomfort may also influence the anxiety level that students have in an online language course.

Another very recent study on the experience of FLA at the beginning of the pandemic outbreak is the one by Resnik et al. (2023). The authors aimed to gain an in-depth understanding of how language anxiety shows up in emergency online teaching compared to traditional classroom lessons. In their study, they investigated 437 Austrian EFL students whose answers regarding their anxiety in traditional classes and those in crisis-related online classes were compared. In their study, 437 tertiary-level students of English participated in a web-based survey where they had to rate their FLA once in a retrospective way for their classes before the pandemic, and once for their actual remote classes. The participants had to rate eight items extracted from the original FLCAS by Horwitz et al. (1986). The second research instrument was an interview that was led with 21 students only but should allow a more detailed insight into the experience of FLA during the online classes. Interestingly, the results in this study indicated a general decrease in the anxiety level in the students' emergency remote classes. However, item analysis revealed that in the digital classroom, the students felt increasingly more embarrassed about volunteering for an answer. The qualitative analysis showed that in each learning context, the sources for FLA were different. The most common source of feeling anxious in the online learning environment was the use of technology as the students felt unfamiliar with and insecure about the tools; but they also worried about possible connectivity issues. Students were also often not sure whether they understood the requirements correctly, which led to an increased stress and anxiety level. Two other frequent issues were participating in interactions as turn-taking was difficult in online classes and the increased workload that made the students feel insecure about even passing the course. This study showed that in the emergency remote learning, typical sources of anxiety (e.g., fear of making mistakes, participating in discussions, worried about lower

proficiency in the foreign language than their colleagues) in a usual classroom were less present in the online classes.

As a last point, teachers should not be forgotten as they play a crucial role in how lessons are administered. As mentioned earlier, technology itself does not really impact the students' learning process, but the teacher is vital in an online learning environment (Teresevičienė et al. 2017: 179). If the teacher manages to establish a strong relationship between him and the students and among the student group in the online environment, then anxiety can be reduced (Salcedo 2010: 52). Furthermore, if teachers are experienced enough to adapt their teaching methods to the online environment by teaching in a student-centred way and creating learning communities among the students, this can create an atmosphere of mutuality and, ultimately, lower the students' anxiety (Richards 2010: 111–113). With regard to the pandemic, Resnik et al. (2023: 635) frequently mentioned the crucial role of the teacher who could lower insecurities and feelings of isolation during the remote learning by implementing more interactions and building connections with the students as well as among the students.

5 Combining FLA and online learning during COVID-19

So far, this thesis has shown that there is already a lot of information about FLA in general and also some with regard to online courses. Before I will dive into the empirical part of my own study, I aim to briefly recapitulate the most important insights I have gained from the extensive literature review, to identify research gaps and to demonstrate how this fits into my study in the following chapter.

To begin with, as my main research interest is on the phenomenon of FLA, I will first summarise the most important information that seem relevant for my study. So, I learned that FLA is not a recent phenomenon, but one that already exists since at least three decades. Anxiety can generally affect any school-related subject, but FLA is specifically triggered in foreign language classrooms which is why it needs to be evaluated differently. Different factors related to the language classroom can lead to the experience of language anxiety. Among these are, for instance, unrealistic beliefs about language learning such as making no mistakes and producing perfect native-speaker-like language. Related to this are oral tasks which make an important part of language learning. Especially unprepared talks are perceived as anxiety-triggering by language students. So, these and some other factors like gender, teacher, or teaching methods can lead to the development of FLA. Once FLA appears within a

student, it not only affects their experience of the language class but also their language learning process as well as their academic achievement.

As my research interest is in the presence of FLA in online classes, it seems of relevance to also briefly refer to technology in education again and to state what previous studies have shown. Technology has developed over the past few decades and even got an integral part in the teaching context. This not only made teaching and learning more motivating, but it also expanded the opportunities for teaching, i.e., by providing online learning materials, using digital learning tools, or even switching to hybrid or digital lessons. Due to these increasing opportunities that technology could bring to education, the European Union and the Austrian government reacted and designed recommendations on how to become proficient in using digital media as well as on what is needed as a teacher to teach such skills to students. However, previous studies have shown that actually teaching with digital media is not always as positively perceived as it is stated in theory. Studies unrelated to the pandemic rather prove the benefits of online classes as students could use the technology to practice their speaking or they experienced less anxiety as they felt more anonymous. Looking at the experience of anxiety in language classes during the pandemic, I noticed different results. Oftentimes the students felt more anxious and did not perceive the online lesson as positive since interaction was low, the learning environment unfamiliar and the learning atmosphere uncomfortable due to the camera and no actual contact with colleagues.

So, how is this information linked to my research? First of all, I realised that most of the studies happened outside of Europe and mainly focused on older students. I identified this as a gap in the research area and thought it would be relevant to have a look at the situation in Austrian schools with lower and upper secondary students. Nevertheless, my research was influenced by the literature on FLA and the previous studies on FLA during the pandemic. The literature on FLA provided me with the relevant background information on how this specific anxiety is experienced and what tools can be used to measure it – this was the basis for my own research instrument. Furthermore, previous studies influenced my expectations on what I would find. Even though, Resnik et al. (2023) have already done similar research on this topic with Austrian EFL students, I consider my own study different from theirs. First, their study again focused on tertiary-level students whose average age was 22.5 years. While Resnik et al. (2023) focused on the differences between remote learning and traditional learning, I aim to investigate only the students' FLA related emotions during the digital learning phase in the pandemic. By doing so, I can have a more detailed look at possible

relations between different factors that influenced the students' anxiety. Furthermore, different to Resnik et al. (2023), I compare two class levels in order to get information on how different age groups perceived their digital English lessons. Therefore, I see my study as an expansion to Resnik et al.'s (2023) study that further contributes to the Austrian educational research area.

Hence, I tried to investigate in how far FLA was experienced by Austrian EFL students during the COVID-19 pandemic. The following chapters will focus on my empirical process and on my findings with regard to this research aim.

6 Empirical research

In the previous chapter, I could see that some studies exist that have already investigated foreign language (speaking) anxiety in an online learning context and that even a few more recent studies have been conducted regarding the students' emotions in digital English lessons during the COVID-19 pandemic. Nevertheless, I can notice that these studies primarily focused on students in higher education. Furthermore, almost all of these studies happened outside of Europe and none of them solely focused on the participants' FLA during the pandemic.

Given the impact COVID-19 had on Austrian schools, I decided to investigate whether FLA was a factor in this context, too. I also decided to focus not only on older students, but also on younger ones and how they perceived their digital English lessons during the pandemic.

So, the aim of the following chapters is to describe my research methodology as well as to present and analyse my results.

6.1 Research questions and hypotheses

The empirical research of this thesis focuses on the investigation of Austrian students' foreign language speaking anxiety level in their online English classroom during the pandemic. Therefore, this thesis aims to answer the following research question:

In how far was foreign language speaking anxiety experienced by Austrian EFL students in their digital English lessons during the pandemic?

In addition, five sub-questions are of my interest to get meaningful findings:

1. In how far does the foreign language speaking anxiety level differ in the online learning environment among the different school grades?

2. In how far does gender play a role in the experience of foreign language speaking anxiety in the online learning environment?
3. How is the number of years learning English as a foreign language related to the experience of foreign language speaking anxiety in the online learning environment?
4. Which factors and what kind of circumstances were primarily perceived as anxiety-provoking?
5. In how far is the students' confidence in using technology for learning related to the experience of foreign language speaking anxiety in the online learning environment?

Six hypotheses form the basis for these research questions:

1. The foreign language speaking anxiety level of Austrian EFL students was quite high in the digital English lessons during the pandemic.
2. Female students show a higher score of foreign language speaking anxiety in their digital English lessons.
3. The level of foreign language speaking anxiety did not differ in the different school grades; however, the factors influencing the experience of anxiety were different.
4. In addition to the typical causes of foreign language speaking anxiety, the students also faced anxiety towards the online format or towards losing an academic year.
5. Students who considered themselves confident with using technology prior to the pandemic, had a lower anxiety level in the online setting.
6. The number of years learning English as a foreign language slightly influenced the level of anxiety experienced in the online setting during the pandemic.

6.2 Methodology

The method used for the empirical study of this thesis is of a mixed-methods design.

Participants received a questionnaire in which I not only opted for quantitative close-ended questions but also for qualitative open-ended ones; this should allow to get the most insightful results. However, the first type of questions makes up the majority of the questions used:

1. To get quantitative results, I made use of the popular Foreign Language Classroom Anxiety Scale (FLCAS). However, an adapted version was used because 1) some questions did not seem of relevance for this study and were therefore omitted and 2) the focus of this study is on the anxiety level in the online learning setting during the pandemic which is why the wording of the statements was changed (more detailed in chapter 6.3). These results should allow to answer the main research question.

2. To get qualitative results, that are relevant to answer the other research questions in more detail, some open-ended questions were added, so that students had the opportunity to share their experiences and opinions in their own words.

6.3 Instruments

As mentioned above, this study made use of one instrument to obtain the necessary data – a questionnaire (Appendix 1). The complete questionnaire was not only designed with my own questions but also with items taken from the FLCAS. Therefore, the questionnaire and my adapted version of the FLCAS will be briefly described and their usefulness for this specific study will be explained in the following.

6.3.1 Adapted FLCAS questionnaire

As Dörnyei and Taguchi (2009: xiii) state, using questionnaires is “one of the most common methods of data collection in second language (L2) research”. Since a questionnaire can help to collect lots of relevant data in a short time that can afterwards be easily and systematically analysed (Dörnyei & Taguchi 2009: 6), this type of instrument seemed adequate for the aim of my research.

The main part of my questionnaire is an adapted version of the FLCAS designed by Horwitz et al. (1986) (see chapter 6.3.2); however, to gather more information regarding the students’ feelings in their digital English lessons during the pandemic, I decided to include a few more questions. First, to understand possible relations between gender, school grade, digital confidence, and the level of foreign language speaking anxiety in an online lesson, I included six factual questions² at the beginning of the questionnaire. These questions were designed as closed questionnaire items so that the participants only had to tick the appropriate box. This should 1) help the students with answering the questions through ready-made answer options and 2) benefit the following coding of the answers. Then, the adapted FLCAS follows, which I will describe in more detail below (see chapter 6.3.2). Even though the FLCAS could already provide me with enough data to answer my first research question, I wanted to gain more detailed information findings. Therefore, I included five additional questions at the end of the questionnaire. These can be described as attitudinal questions³ because they ask the participants about their opinions and feelings towards the online English classroom. The first three questions had been designed as close-ended items with an added open-ended item. The

² Factual questions help to understand who the respondents are and provide background information relevant for the interpretation of the findings (Dörnyei & Taguchi 2009: 5).

³ Attitudinal questions are asked to find out what people think (Dörnyei & Taguchi 2009: 5).

idea behind this was to understand the students' answers in more depth and to enhance my investigation with subjective experiences provided by the participants. The last two questions had been designed as only open-ended ones because participants would have individual answers to them, and I wanted to give them the freedom to write down any thoughts they had to these questions. However, I could say that these questions would not be relevant for the main focus of my research but rather function as additional information for interpreting the main results.

6.3.2 Foreign Language Classroom Anxiety Scale (FLCAS) – my adapted version

In chapter 3.6, I have already provided some general information about the original FLCAS; so, in the following, I will explain how and why relevant changes to the scale had been made so that it would serve as an adequate tool for my study.

To begin with, I had a look at the 33 items in the original version (Appendix 2) and evaluated them according to their relevance for my study. The original version includes items that test communication apprehension, fear of negative evaluation, and test anxiety. It was clear that those related to test anxiety would not be of my interest; so, I excluded items 8, 10 and 21. My main research focus was on speaking anxiety; so, I kept all items that test communication apprehension except for the questions asking about comfort around native speakers. This is because I thought that native speakers might not have been common in EFL online lessons during the pandemic. Apart from this, these statements are hypothetical ones, and I was not interested in hypothetical answers but actual emotional attitudes in the students. So, items 1, 3, 4, 9, 13, 18, 20, 23, 24, 27, 29, 31, 33 from the original version were included in my adapted version. Regarding the statements testing fear of negative evaluation, not all the items in the original version seemed relevant for my research. With item 15 (“I get upset when I don’t understand what the teacher is correcting”), I was not sure whether it applied to written corrections or corrections during speaking, so, I decided to exclude this item because for my research, anxiety over written corrections would not be of relevance. Item 22 (“I don’t feel pressure to prepare very well for language class”) seems to ask about preparation outside the classroom and would, in my context, have nothing to do with the actual emotions in the online class; so, I excluded this item, too. At last, item 30 (“I feel overwhelmed by the number of rules you have to learn to speak a foreign language”) appears to be related to learning grammar rather than speaking in the classroom; thus, this item was also omitted. In the end, the adapted version counted 25 items. I kept the 5-point Likert scale ranging from *strongly disagree* to *strongly agree*. With Likert scales, the response options are assigned a number for

scoring purposes (Dörnyei & Taguchi 2009: 27). So, positive statements in my questionnaire are scored 5 points for *strongly agree* and 1 point for *strongly disagree*. For negative statements, the scores are reversed (Dörnyei & Taguchi 2009: 27); so, in my case *strongly disagree* then scores 5 points and *strongly agree* scores 1 point⁴. Therefore, the range of scoring was from 25 to 125 with a higher score indicating a higher level of anxiety in the student.

As a second step, I changed the wording in the statements so that their relation to my study would be much clearer for the participants. Therefore, the word (*foreign*) *language* was changed with *English* and for statements with *language class*, I added *digital* since I was interested in the anxiety in online lessons during the pandemic. As a last step, I designed a German version of the adapted FLCAS to hand out to the participants. This should ensure the comprehension of the questionnaire so that I would get reliable answers.

6.3.3 Potential issues

I was well aware of the disadvantages that could arise with using a questionnaire. One such disadvantage mentioned by Dörnyei and Taguchi (2009: 7) are unmotivated respondents who may not enjoy answering a questionnaire or may not even return it. In order to prevent the problem of not receiving the questionnaires back, I decided to do a paper-and-pencil questionnaire that was distributed during the English lessons of the participants. With that I tried to ensure that the students were actually filling in the questionnaire and were also handing it back to the researcher.

A second issue with questionnaires, according to Dörnyei and Taguchi (2009: 7), could be literacy problems with the respondents. I was well aware that students who are learners of a foreign language – in my case English – may not fully understand a questionnaire that is designed in this language. This is why I chose to design the final questionnaire in German, so that full comprehension of the questions would be ensured.

6.4 Participants

Participants in my study represent a non-probability sampling, within which the participants were chosen according to a convenience sampling⁵. This means that I thought of a sampling frame according to which participants should attend 3rd or 4th (i.e., years 7 and 8) grade as well as 7th grade (i.e., year 11) in an Austrian AHS (Allgemeinbildende Höhere Schule) and

⁴ This applies to items 2, 5, 9, 14, and 22 of my adapted version of the FLCAS.

⁵ This means that participants are chosen by certain practical criteria. Nevertheless, convenience sampling also represents a purposeful sampling method where the participants need to meet certain characteristics to be part of the study (Dörnyei 2007: 99).

are taught English as a foreign language at school. These criteria were of relevance so that comparable results could be drawn from the data collected. One of my aims was to compare lower and upper secondary. The specific grades were chosen according to the following criteria:

- students attended a new school within the pandemic → this applies mostly to the 3rd grade because when the pandemic and the digital learning happened, they experienced the transition from primary school to the lower secondary. This might also apply to the 7th grade since the transition from lower to upper secondary usually means getting new colleagues, teachers or even attending a completely new school.
- students started learning a new and foreign language when online teaching commenced → this applies mostly to the 3rd grade because even if English had been taught in primary school, the students would start English from scratch in the 1st grade of lower secondary. This also applies partly to the 4th grade because when the pandemic started and school was changed to the digital format, they were in the middle of their first year of learning English in the lower secondary.
- students have their school leaving exam ahead → this applies to the 7th grade because even though they were only in 5th grade when they experienced digital learning, they knew their graduation is approaching ; insecurities and anxiety towards failing this due to the pandemic might have influenced the students' anxiety.
- potential difference in digital experience and confidence → the different age groups might show differences in being experienced with using technology. This might have influenced their learning experience during the pandemic.

So, in total I ended up with 146 participants who attended a school in a medium-sized town in Eastern Austria. The sample of the lower secondary counts 88 students and the sample of the upper secondary counts 58 students. In the lower secondary, the age group ranged from 12 to 15 years, with a majority being 12 years old. In the upper secondary, the age group ranged from 16 to 20 years, with a majority of students being 17 years old. In total, there were more female participants than male ones (m=61; f=84); however, in the lower secondary, there were more male students than female ones (m=47; f=40), while in the upper secondary, it was the contrary (m=14; f=44) (see Fig. 6). Moreover, in the lower secondary, there was one student who considered themselves as another gender than female or male; however, they will not be explicitly mentioned or presented in this thesis due to potential anonymity issues and

the results for this student might not be as representative as I wish them to be. Table 2 gives a detailed overview of the participants and their distribution.

Table 1: Demographic data of participants

category	sub-category	frequency	%	total
gender	female	84	58%	n=146
	male	61	42%	
class level	lower sec.	88	60%	n=146
	upper sec.	58	40%	
grade	year 7	72	49%	n=146
	year 8	16	11%	
	year 11	58	40%	
lower sec.	female	40	45%	n=87
	male	47	53%	
upper sec.	female	44	76%	n=58
	male	14	24%	

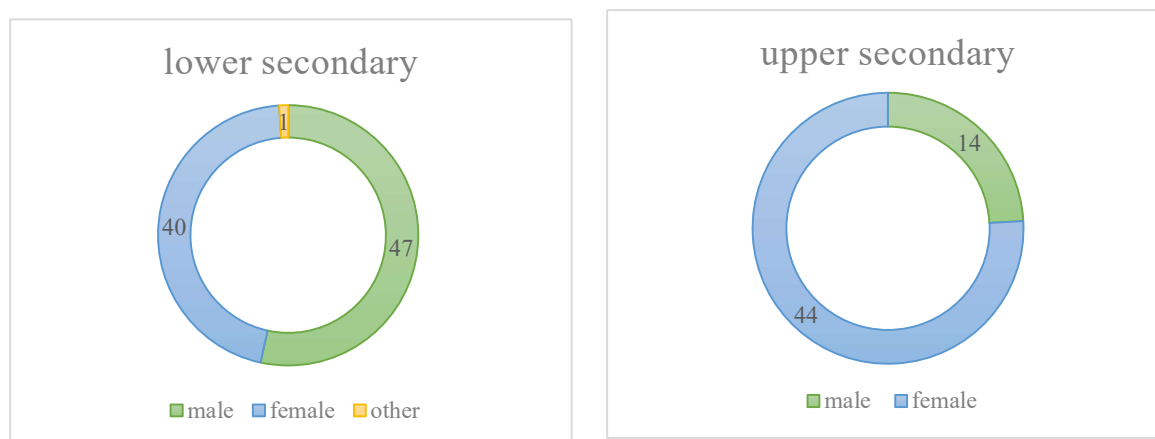


Figure 6: Gender of participants in lower and upper secondary

Regarding the students' learning years of English, I could find that most of the participants – lower as well as upper secondary – started learning⁶ English in primary school. However, in the upper secondary, there was even a quarter of students who had already started learning English in kindergarten.

6.4.1 Confidence using technology before the pandemic

With regard to the demographic data, I was also interested in how confident the students felt using technology for learning. First, I asked them about their confidence level before the pandemic.

⁶ In Austria, students usually start learning English as a foreign language in lower secondary. In primary school it is only taught as a subject that is not graded whereas in lower secondary, English is a compulsory subject. English taught in kindergarten is an option that parents can choose for their children (de Cillia & Krumm 2010: 154–155).

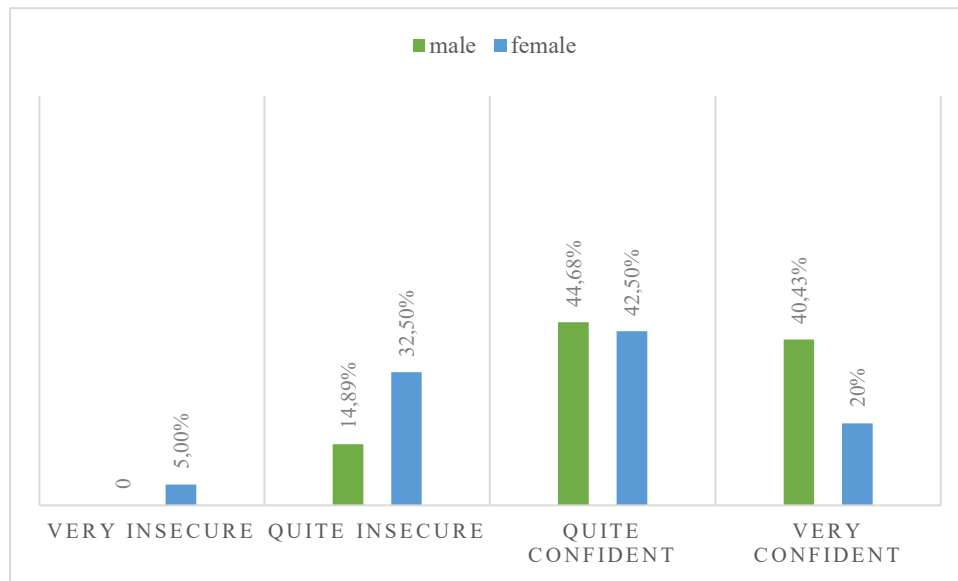


Figure 7: Pre-pandemic technological confidence in lower secondary

Figure 7 shows that in lower secondary, the majority of the students considered themselves quite confident in using technology for learning before the pandemic had started. It can be clearly seen that the male students felt more confident than the female ones since twice as many boys as girls even considered themselves very confident. In the upper secondary, similar results were found (see Fig. 8). Here, the majority of the students also considered themselves quite confident in using technology for learning. However, different from the lower secondary is that a third even felt quite insecure. What is similar is that, again, more boys than girls considered themselves very confident.

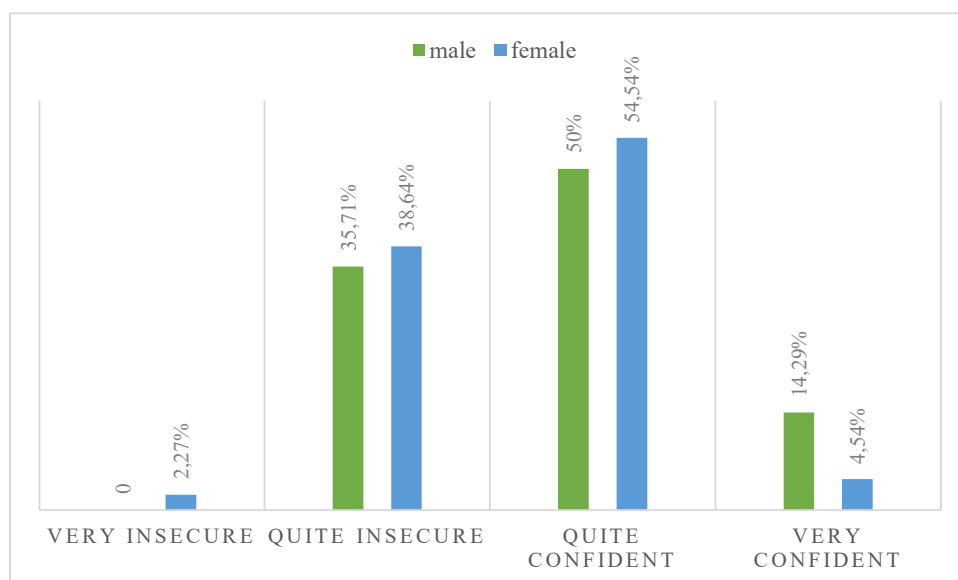


Figure 8: Pre-pandemic technological confidence in upper secondary

6.4.2 Confidence using technology after the pandemic

Secondly, I asked the students how confident they felt in using technology after the pandemic. Regarding this area, I could find interesting results.

The confidence of almost all of the students in the lower secondary shifted one stage upwards which means that after the pandemic, the majority felt very confident in using technology for learning, and those who first felt quite insecure then considered themselves quite confident. At the end of the pandemic, there were even no students left who felt very insecure (see Fig. 9). Apart from this, I noticed that for a lot of female students the confidence level even shifted from quite insecure to very confident, while for most of the male students the confidence level either stayed the same or only shifted one level upwards.

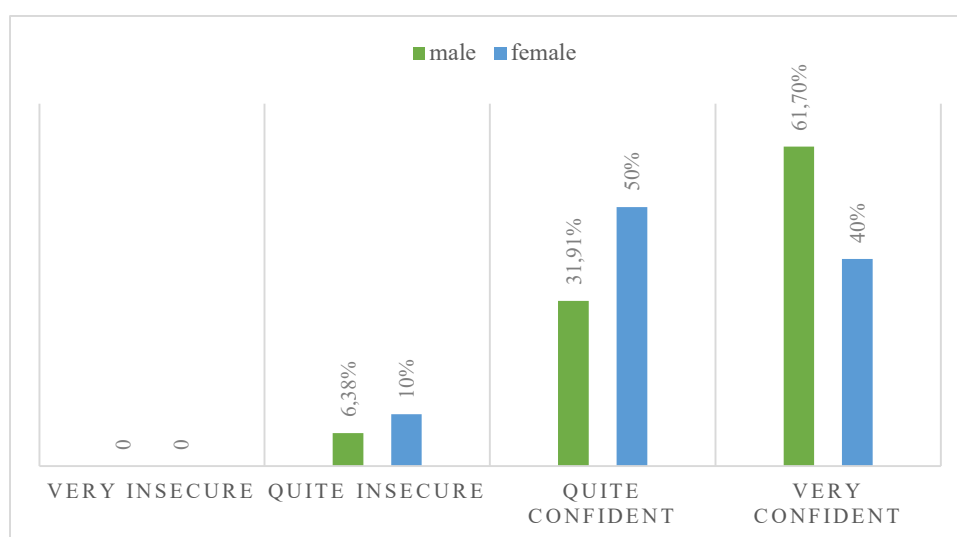


Figure 9: Post-pandemic technological confidence in lower secondary

In the upper secondary, the results are similar (see Fig. 10).

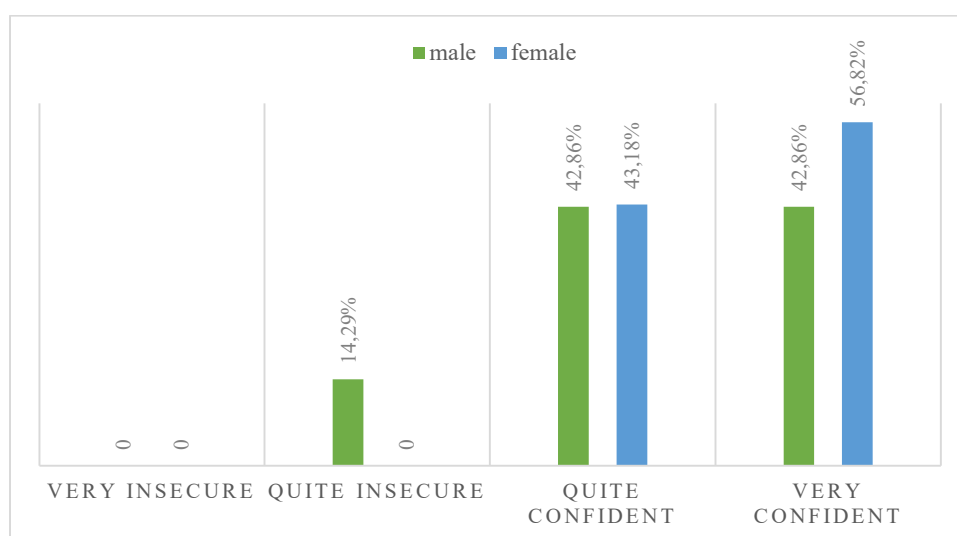


Figure 10: Post-pandemic technological confidence in upper secondary

Figure 10 shows that in the upper secondary, the confidence level of the students had shifted one stage upwards, too. So, after the pandemic, the majority of the students felt very confident in using technology for learning, and most of the students who first felt quite insecure then felt quite confident.

However, what is interesting for both, lower and upper secondary, is that there are a few students who even considered themselves less confident after the pandemic than they did before. In upper secondary, this applies to one female and one male student. The situation was similar in the lower secondary where especially some of the boys experienced a confidence loss in using technology for learning.

6.5 Procedure

Before the learners took part in the questionnaire, the parents had received a consent form (Appendix 3) in which they were informed about the study, its purpose, and the researcher. Once the parents had signed the consent form, I accompanied the English teachers to their lessons. In these lessons, the students were handed out the questionnaire; so, filling in the questionnaire happened during a regular English lesson and took about 15 minutes.

Once all the participants had filled in the questionnaire, I recollected them and first, started with data coding. This happened by counting the students' answers to the various questions, converting the numbers into percentages to make the results comparable among the groups, and putting these into an Excel document. For each of the questions, I decided to count the overall responses and to count the answers separately according to gender, so that I could not only see whether differences among lower and upper secondary exist but also among the different gender. For the overall anxiety level, I counted the answers according to the Likert system described above (see chapter 6.3.2) and then calculated the average for all students of each group as well as for the different gender again. Furthermore, I calculated the mean, the median, the mode, and the standard deviation of points for each item.

7 Results

After describing my research aim, the instruments used, the participants, and the procedure, I will present the results that I got from my questionnaire in the following chapter. First, I will show whether the students felt generally anxious in their digital English lessons and what their reasons for experiencing this feeling were. Then, due to my research focus on foreign language speaking anxiety, I will first present the average speaking anxiety level that students scored on the adapted FLCAS as well as the scores in relation to the students' confidence

level in using technology before the pandemic. As a next step, I will present the results on the adapted FLCAS in more detail by looking at the percentages of students answering each item as well as the average score points for each item. This helps to identify which factors were primarily experienced as anxiety-provoking in the digital English lessons. Lastly, the students' attitudes towards the camera in their digital English lessons will be presented.

7.1 General anxiety

To begin with, I will have a look at how anxious the students generally felt in their digital English lessons during the pandemic.

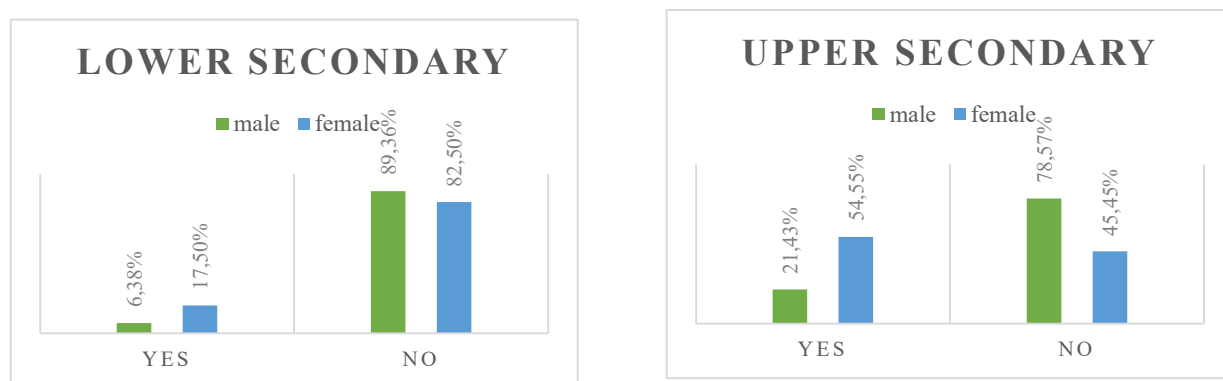


Figure 11: General anxiety in lower and upper secondary

In Figure 11, I can see that participants in lower and upper secondary differ considerably with regard to experiencing general anxiety in their online English classes. While in lower secondary, almost all of the students, regardless of their gender, did not feel generally anxious in their online English classes, more than half of the female students in upper secondary did indeed feel generally anxious. Even though the majority of the male students in the upper secondary did not feel generally anxious, I can still notice that the older boys show a slightly higher tendency towards a general anxious feeling in their online English lessons in contrast to the younger ones.

Among the students who did feel generally anxious, often the ones in upper secondary mentioned their teacher as the source of their general anxiety in their online English lessons. They described their teacher as impatient, resentful and as a person who even yelled at the students. Quite a few students also mentioned their insecurities regarding their language skills as an aspect that made them feel anxious. These students said that they were afraid to make

mistakes or generally did not feel confident in using English. Other comments⁷ by the students who felt generally anxious in the online classes were the following:

Online classes were something new to me, so I didn't feel very secure. (male, 7th grade)

Because I could not handle technology back then and I did not know my classmates and English teacher well. (female, 7th grade)

Durch die Technik hat man nicht immer alles verstanden; niemand meldete sich freiwillig, wodurch der Druck und die Anspannung stieg. [Due to technology I did not understand everything; no one volunteered which increased pressure and tension.] (female, 7th grade)

Looking back at it now, I think it's because I was in a new class with students I didn't really get to know before online school. They were way better in English and that made me anxious. (female, 7th grade)

Online Unterricht war generell stressig, besonders wenn wir in Breakout-Rooms eingeteilt wurden, weil das immer unvorbereitet passiert ist. [Online classes were generally stressful, especially when we were put into breakout-rooms as this always happened without preparation.] (female, 7th grade)

Es war sehr befremdlich, ohne wirklichen Kontakt mit Menschen zu sprechen. [It was very strange to talk without actual contact to people.] (female, 4th grade)

Davor hatte ich nie irgendetwas online gemacht, kannte mich nicht aus und hatte zu der Zeit extreme Probleme in Englisch. [I have never done anything online before, I did not know a lot about digital classes and at that time, I had severe problems in English.] (male, 3rd grade)

Ja, weil der Unterricht am Anfang der ersten Klasse war und ich noch fast niemanden gekannt habe und mich nicht getraut habe, etwas zu sagen, weil ich eher schüchtern bin. [Yes, because classes were at the beginning of first grade and I did not know anybody and I did not dare to talk as I am rather shy.] (female, 3rd grade)

Weil man oft durch irgendwelche Geräusche gestört wurde oder alles verzögert war oder es WLAN-Probleme gab. [You were often distracted by some noises or everything lagged or there were wi-fi problems.] (female, 3rd grade)

⁷ Some students wrote their answers in English and some in German. To be authentic, I kept the original responses regardless of the language, but added the English translation for the German ones.

This is just a selection of the most concrete answers that the students gave; however, I can conclude that technology was a source of anxiety as well as being in a new class. Apart from this, having to speak without preparation caused an anxious feeling in the students or the tense and uncomfortable atmosphere in the digital setting.

7.2 Foreign language speaking anxiety

My main focus of this study was to find out about how anxious the participating students felt about speaking in their online English lessons during the COVID-19 pandemic. To find this out, I used an adapted version of the FLCAS whose average scores will be presented below.

First, Figure 12 illustrates the average speaking anxiety level for each group. I can clearly see that students in the upper secondary had a higher score with 74,1 points compared to the students in the lower secondary whose average speaking anxiety score was 57,1.

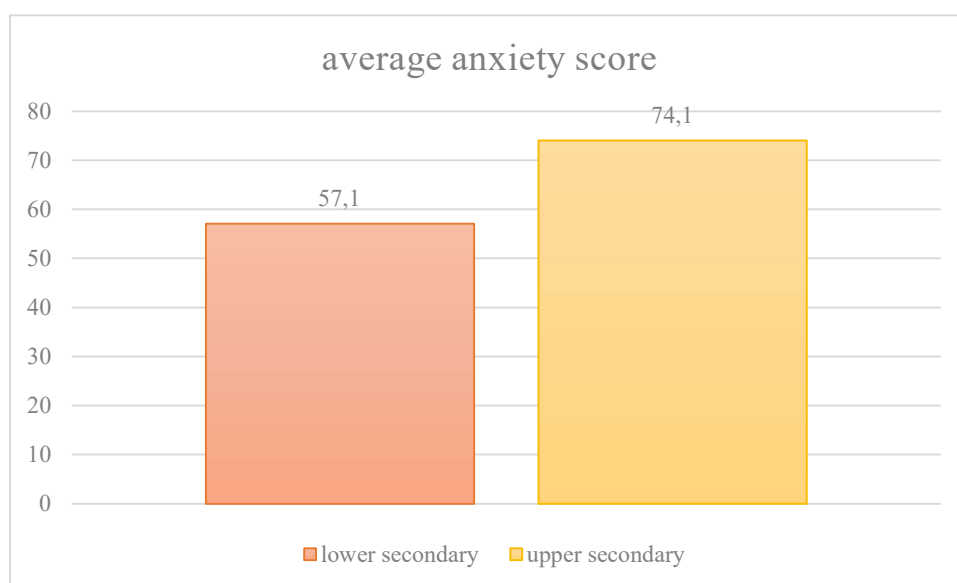


Figure 12: Average foreign language speaking anxiety score in lower and upper secondary

Next, I had a more detailed look at the anxiety levels of the different gender and found that in the lower as well as the upper secondary, the female students experienced higher speaking anxiety in their digital English lessons than their male colleagues. However, Figure 13 shows that the anxiety levels in the lower secondary only slightly differ between the various gender. In contrast to this, the female students in the upper secondary showed a significantly higher anxiety score than their male colleagues.

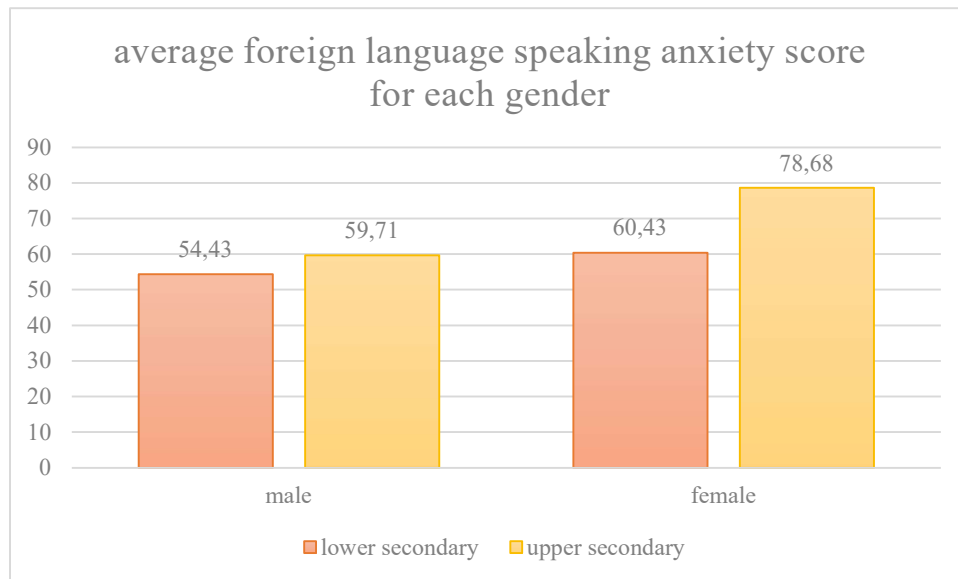


Figure 13: Average foreign language speaking anxiety score for each gender in lower and upper secondary

Apart from gender, I was also interested in how far the confidence in using technology had an impact on the students' speaking anxiety level. To find out about this relationship, I did not differentiate between gender or grade but rather focused on the average anxiety score for each confidence level.

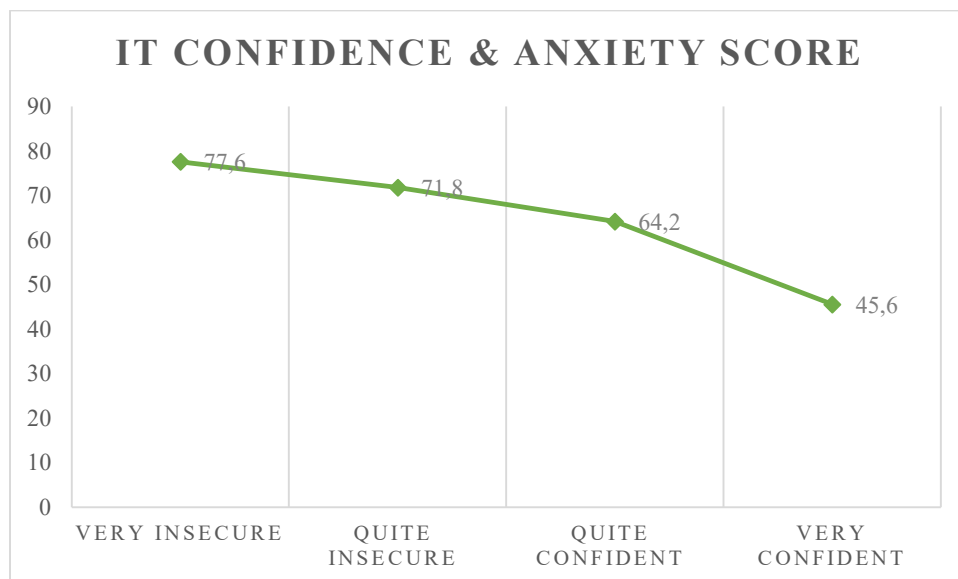


Figure 14: Technological confidence and foreign language speaking anxiety score

Figure 14 demonstrates that for students who felt very insecure in using technology before the pandemic, the average speaking anxiety score was the highest with 77,6 points whereas students who felt very confident in using technology before the pandemic only show an anxiety score of 45,6 points. Thus, the anxiety level tends to decrease as the confidence level in using technology rises.

In the following, I will have a look at the various items in the adapted FLCAS to find out which situations caused the highest or lowest anxiety in the students. First, to get a clear view of how high the anxiety level was for each item and to make the results more comparable between the two class levels, a table will be provided presenting the mean, the median, the mode, and the standard deviation for each item and each class level; secondly, I will provide another table with the percentages of students for each alternative

7.3 Detailed results of the adapted FLCAS

First, I will have a look at the average FLCAS points for each item. Points ranged from minimum 1 point to maximum 5 points with a higher score indicating a higher anxiety level.

Table 2: FLCAS points for each item in lower and upper secondary (mean, standard deviation sd, median, mode)

Item	Lower secondary				Upper secondary			
	mean	sd	median	mode	mean	sd	median	mode
1. I never felt quite sure of myself when I was speaking in my online English class.	2.13	1.14	2	2	2.90	1.15	3	4
2. I didn't worry about making mistakes in my online English class.	2.61	1.23	2	2	3.40	1.48	4	4
3. I trembled when I knew that I was going to be called on in my online English class.	1.88	1.23	1	1	3.09	1.43	3	4
4. It frightened me when I didn't understand what the teacher was saying in English.	2.44	1.40	2	1	2.59	1.39	2	1
5. It wouldn't have bothered me at all to have more online English classes.	2.64	1.37	2	2	3.29	1.22	3	3
6. During my online English class, I found myself thinking about things that had nothing to do with the course.	3.34	1.36	4	2	4	1.02	4	5
7. I kept thinking that the other students were better at English than I was.	2.32	1.28	2	1	2.76	1.48	3	1
8. I started to panic when I had to speak without preparation in my online English class.	2.42	1.30	2	1	3.33	1.34	4	4
9. I didn't understand why some people got so upset over online foreign language classes.	2.92	1.26	3	3	3.43	1.04	3.5	4
10. In my online English class, I could get so nervous that I forgot things I know.	1.98	1.12	2	1	2.67	1.43	2.5	1

11. It embarrassed me to volunteer answers in my online English class.	1.82	1.26	1	1	2.83	1.25	3	4
12. Even if I was well prepared for English class, I felt anxious about it.	1.84	1.12	1	1	2.78	1.37	3	4;1
13. I often felt like not going to my online English class.	2.09	1.40	1	1	2.74	1.36	3	4
14. I felt confident when I spoke in my online English class.	2.48	1.22	2	2	3.09	1.16	3	3
15. I was afraid that my language teacher was ready to correct every mistake I made.	2.32	1.20	2	2	3.02	1.33	3	2
16. I could feel my heart pounding when I was going to be called on in my online English class.	2.17	1.35	2	1	3.36	1.41	4	4
17. I always felt that the other students spoke English better than I did.	2.20	1.33	2	1	2.64	1.39	2	1
18. I felt very self-conscious about speaking English online in front of other students.	2.17	1.23	2	1	3.10	1.31	3	4
19. Online English class moved so quickly that I worried about getting left behind.	2.23	1.21	2	1	2	1.02	2	2
20. I felt more tense and nervous in my online English class than in my other online classes.	1.65	0.97	1	2	2.43	1.44	2	1
21. I got nervous and confused when I was speaking in my online English class.	1.86	1.00	2	1	2.74	1.31	2.5	2
22. When I was about to enter my online English class, I felt very sure and relaxed.	2.45	1.07	2	2	3.14	1.18	3	2;4
23. I got nervous when I didn't understand every word the English teacher said.	2.34	1.30	2	1	2.79	1.28	3	4
24. I was afraid that the other students would laugh at me when I spoke English in my online English class.	2.16	1.37	2	1	2.79	1.41	2.5	2;4
25. I got nervous when the English teacher asked questions which I hadn't prepared in advance.	2.69	1.33	2	2	3.36	1.34	4	4

Table 2 shows the average FLCAS points for each item. Looking at the scores, I notice that outstanding differences between the two class levels only exist for a few items. The greatest difference could be found for item 3 where the upper secondary scored 3.09 points and the lower secondary 1.88 points, indicating that a greater majority among the older students experienced FLA by trembling in their online English class. The second item with 1.19 points difference is item 16 where the upper secondary scored 3.36 points in contrast to the lower secondary with 2.17 points. Further great differences for both class levels can be found for

item 8 (difference = 0.91 points), item 11 (difference = 1.01 points), item 12 (difference 0.94 points), item 18 (difference = 0.93 points), and item 21 (difference = 0.88 points). In each of these cases, the upper secondary scored considerably higher. There is only one item where both – lower and upper secondary – scored similarly high, namely item 6, indicating that younger and older students were easily distracted during their online English classes. The other items do not show significant differences in points between the two groups; however, a tendency is noticeable that the upper secondary rather scores high on all the items whereas the lower secondary scores low.

Next, I will look at the percentages of students selecting each alternative to get a more detailed view of how many of the students actually scored high and how this differs between the two class levels.

Table 3: FLCAS items with percentages of students selecting each alternative (lower secondary = orange; upper secondary = yellow)⁸

		SA*	A	N	D	SD
1.	I never felt quite sure of myself when I was speaking in my online English class ⁹ .	5** 7	13 33	8 17	43 31	33 10
2.	I didn't worry about making mistakes in my online English class.	15 7	44 26	9 7	22 41	9 19
3.	I trembled when I knew that I was going to be called on in my online English class.	3 19	15 29	7 14	17 17	57 21
4.	It frightened me when I didn't understand what the teacher was saying in English.	9 9	22 28	8 9	26 24	36 31
5.	It wouldn't have bothered me at all to have more online English classes.	25 9	28 17	13 31	20 22	13 21
6.	During my online English class, I found myself thinking about things that had nothing to do with the course.	26 38	25 36	13 16	28 9	9 2
7.	I kept thinking that the other students were better at English than I was.	7 17	15 17	19 21	23 14	35 31
8.	I started to panic when I had to speak without preparation in my online English class.	7 24	20 28	13 17	28 19	32 12
9.	I didn't understand why some people got so upset over online foreign language classes.	17 3	19 16	38 31	13 34	15 16
10.	In my online English class, I could get so nervous that I forgot things I know.	2 12	13 24	9 14	32 19	45 31
11.	It embarrassed me to volunteer answers in my online English class.	8 7	5 33	11 14	15 29	60 17
12.	Even if I was well prepared for English class, I felt anxious about it.	3 12	8 24	11 17	24 22	53 24
13.	I often felt like not going to my online English class.	8 9	16 31	7 12	16 22	53 26
14.	I felt confident when I spoke in my online English class.	24 12	35 17	18 31	15 29	8 10
15.	I was afraid that my language teacher was ready to correct every mistake I made.	6 17	15 24	13 16	39 29	30 14
16.	I could feel my heart pounding when I was going to be called on in my online English class.	7 22	18 40	6 7	24 14	45 17

⁸ The detailed results with percentages for each gender can be found in the appendix 4.

⁹ Students received the German version of this questionnaire, but to be consistent with the language in this paper, I include the English version here.

17.	I always felt that the other students spoke English better than I did.	9 14	11 16	15 19	23 24	40 28
18.	I felt very self-conscious about speaking English online in front of other students.	6 16	13 31	13 16	31 24	40 14
19.	Online English class moved so quickly that I worried about getting left behind.	6 2	13 10	16 10	31 41	35 36
20.	I felt more tense and nervous in my online English class than in my other online classes.	0 16	8 10	13 10	17 29	61 34
21.	I got nervous and confused when I was speaking in my online English class.	1 10	9 24	10 16	34 29	45 21
22.	When I was about to enter my online English class, I felt very sure and relaxed.	17 7	47 29	19 21	14 29	5 14
23.	I got nervous when I didn't understand every word the English teacher said.	9 9	11 31	18 14	27 24	34 22
24.	I was afraid that the other students would laugh at me when I spoke English in my online English class.	11 14	8 26	11 10	24 26	45 24
25.	I got nervous when the English teacher asked questions which I hadn't prepared in advance.	12 21	18 36	17 17	31 10	22 16
* SA = strongly agree; A = agree; N = neither agree nor disagree; D = disagree; SD = strongly disagree ** data in this table are rounded to the nearest whole number to see clearer results.						

Table 3 shows for each item in my adapted FLCAS the percentages of students selecting each alternative. I will start with referring to outstanding results in the upper secondary. I can see that in the upper secondary, a significant majority with 74%¹⁰ found themselves thinking about something else than the English content during their digital lessons. Another statement that a small majority (40%) in the upper secondary agreed to is “It embarrassed me to volunteer answers in my online English class.” (item 11). Furthermore, a great majority (62%) showed physical symptoms as they agreed with the statement “I could feel my heart pounding when I was going to be called on in my online English class.” (item 16). Anxious students in the upper secondary, also scored high in the following statements: “I got nervous when the English teacher asked questions which I hadn't prepared in advance.” (57%; item 25), “I got nervous when I didn't understand every word the English teacher said.” (40%; item 23), “I felt very self-conscious about speaking English online in front of other students.” (47%; item 18), “I often felt like not going to my online English class.” (40%; item 13), “I started to panic when I had to speak without preparation in my online English class.” (52%; item 8), “I trembled when I knew that I was going to be called on in my online English class.” (48%; item 3). Furthermore, anxious students in the upper secondary also scored high in the negative statements such as “I felt confident when I spoke in my online English class.” (item 14) where the majority with 39% disagreed, or “When I was about to enter my online English class, I felt very sure and relaxed.” (item 22) where 43% also disagreed, as well as “I didn't worry about making mistakes in my online English class.” (item 2) with 60% disagreeing.

¹⁰ The percentages are added together to be representative for *strongly agree* and *agree* or *strongly disagree* and *disagree*.

Next, prominent results for the lower secondary are presented. Interestingly, I find different results for the lower secondary. I already know that the lower secondary generally scored lower on the anxiety scale than the upper secondary; this is also represented with the answers to the various items. For example, different from students in the upper secondary, only a minority of students in the lower secondary scored high for the negative statements “I didn’t worry about making mistakes in my online English class.” (31%; item 2) or “When I was about to enter my online English class, I felt very sure and relaxed.” (19%; item 22). Other items where significantly fewer students in the lower secondary in contrast to the upper secondary scored high are “It embarrassed me to volunteer answers in my online English class.” (13%; item 11), “I trembled when I knew that I was going to be called on in my online English class.” (18%; item 3), “I started to panic when I had to speak without preparation in my online English class.” (27%; item 8), “I often felt like not going to my online English class.” (24%; item 13), “I could feel my heart pounding when I was going to be called on in my online English class.” (25%; item 16), “I was afraid that the other students would laugh at me when I spoke English in my online English class.” (19%; item 24), and “I got nervous when the English teacher asked questions which I hadn’t prepared in advance.” (31%; item 25). Nevertheless, I noticed that for item 6 (“During my online English class, I found myself thinking about things that had nothing to do with the course.”) the majority in the lower secondary (51%) also agreed on this, which makes it the only item to which the majority in both lower and upper secondary agreed to.

So, in brief, the general tendency is that with statements where upper secondary students scored high in anxiety, answers of the lower secondary students could rather be found on the other side of the spectrum so that they scored low in anxiety.

Looking at the detailed results for each gender, I generally find similar results like the ones described above. However, for the female participants I noticed that the majority of them – in the lower as well as the upper secondary – agreed to statement number 6 with 61% in the lower secondary and 73% in the upper secondary. Outstanding items which significantly more female students in the upper secondary agreed to are item 3 (53%), item 8 (54%), item 16 (75%), item 18 (54%), and item 25 (66%). Furthermore, to the negative statements 9, 14, and 22, the majority of the older females disagreed which also indicates a high anxiety score. In the lower secondary, I could not find any outstanding items which a significant majority agreed to, except for item 6. These results might explain their relatively moderate anxiety score as was indicated in Figure 12.

In contrast to the female students, I find among the male participants rather similar percentages for each alternative. So, I noticed that the majority of the male students (strongly) disagreed with most of the items. The only item positively connotated with foreign language speaking anxiety that boys in both groups agreed to is item 6 with 45% of male students in the lower secondary and 78% in the upper secondary. Item 13 is one item where male students in lower and upper secondary differ: a majority of 50% in upper secondary did not feel like going to their digital English lessons while only 22% in the lower secondary did agree with that item.

So, I can conclude that female students in lower and upper secondary not only differ in their general anxiety score but also in the various items since items that the majority of upper secondary girls agreed to, lower secondary girls rather disagreed to. Interestingly, male students in lower and upper secondary show in most of the items quite similar and rather low anxiety scores as they both (strongly) disagreed with most of the items.

7.4 Particular factors influencing the speaking anxiety

Related to the aspect of the foreign language speaking anxiety was my question whether there was something particular that made the students feel anxious about speaking in their online English lessons.

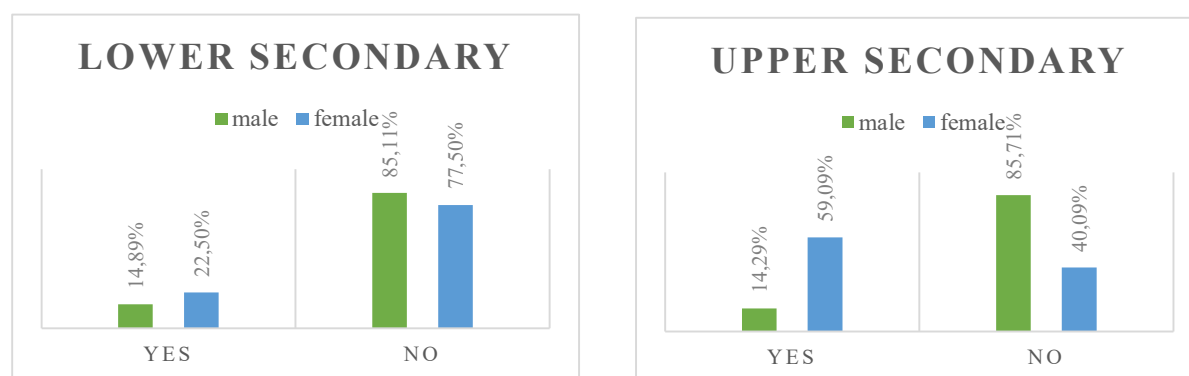


Figure 15: Particular reasons for foreign language speaking anxiety in lower and upper secondary

Figure 15 shows that in the lower secondary, the majority of the students did not have any particular aspect that made them feel anxious about speaking in their online lessons whereas in the upper secondary, clearly more than half of the female students did have a particular aspect.

In the upper secondary, two male students also ticked that there was a particular aspect that made them feel anxious. For both of them, pronunciation and the fear of making mistakes were the reasons they mentioned. Among the girls' answers there was one, for example, that it

made them anxious when they did not understand what the teacher was saying or which task they had to do. For some of them, this also had to do with the technology that either did not work properly or simply made it difficult to follow the others when they were speaking. One comment was also that the voice may sound weird in the online setting, which made the girls feel uncomfortable about speaking. Several female students again mentioned their teacher, who was angry and uncomprehending, as a specific reason for their speaking anxiety in their online classes. In the lower secondary, the few students who indicated that there was a particular reason often mentioned their pronunciation as the cause for their speaking anxiety. Another reason that was mentioned quite frequently was the fear of being laughed at by colleagues when they would make a mistake or pronounce a word incorrectly.

7.5 Students' preferences towards the camera

Lastly, I was interested in whether the students liked to have their camera switched on or off and whether this preference could have been related to the speaking anxiety in the digital English lessons.

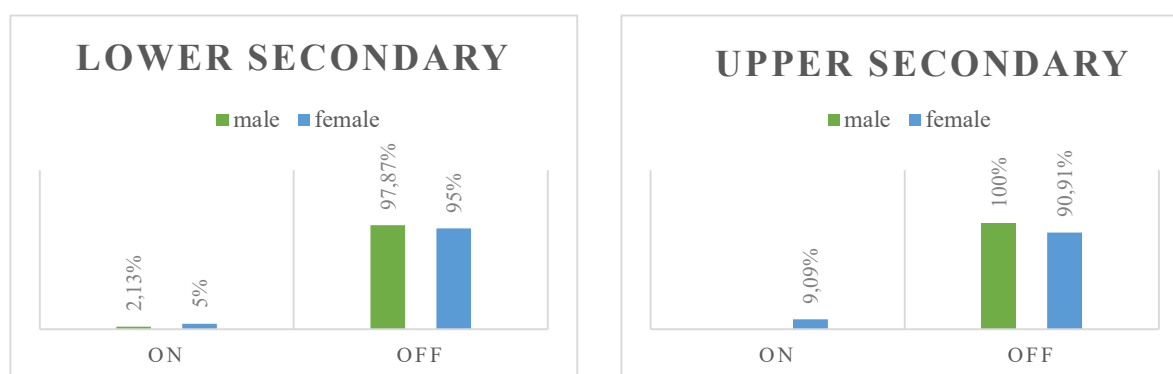


Figure 16: Preference of camera switched on or off in lower and upper secondary

Figure 16 shows a considerable preference among the students to having their cameras turned off in their digital English classes. Only one male student and a few female students, in lower as well as upper secondary, mentioned that they preferred to have their cameras on.

The majority of the students explained that they did not want to be seen during the online classes or were ashamed of their look in the morning, which is why they preferred having their cameras off. However, some other reasons were the following:

Weil man sich dann nicht darauf konzentrieren musste, immer auf den Bildschirm zu schauen und weil an meinem Zimmer immer wieder Leute vorbeigegangen sind. [Because then I did not have to concentrate to look at the screen and because often times people crossed my room.](female, 4th grade)

Damit die anderen nicht sehen, was man macht. [So that others could not see what I was doing.] (male, 3rd grade)

Weil ich mich sonst immer beobachtet gefühlt habe und immer Angst hatte, dass mich alle anstarren. [Because otherwise I would have constantly felt observed and I was always anxious that everyone was staring at me.](female, 3rd grade)

Weil manche unserer Mitschüler/innen Screenshots von uns gemacht haben und lustige Filter eingefügt haben. [Because some of our colleagues made screenshots of us and put funny filter on them.] (male, 3rd grade)

The few students who mentioned that they liked to have their camera on, gave the following reasons:

Weil dann muss man sich wie im Unterricht verhalten. [Because then you have to behave like in a usual lesson.] (male, 4th grade)

Weil dann andere SchülerInnen auch ihre Kamera an hatten und ich sie wieder gesehen habe. [Because then other students had their cameras turned on as well and so I could see them again.] (female, 3rd grade)

Da ich nicht in die Versuchung kam, etwas anderes zu machen. [Because then I was not tempted to do something else.] (female, 3rd grade)

Because our teacher asked us to turn on our camera. She used to get quite angry when someone didn't turn their camera on. (female, 7th grade)

Da unsere Lehrerin so gesehen hat, dass ich mitarbeite. [Because then our teacher could see that I was participating in class.] (female, 7th grade)

Because you got yelled at when your camera was off. (female, 7th grade)

So, in brief, I can say that nearly all of the students, regardless of their gender, preferred to have their camera turned off in their digital English lessons. This was because they felt more comfortable not being seen or constantly looked at. Furthermore, they did not want their colleagues to see their rooms or family members; so, privacy was an important aspect that influenced their preference. Often students were not ready for the lessons as they were still lying in bed or wearing their pyjamas, or they did something else during the lessons. In the lower secondary, I could also find that technology itself played a role since in online lessons, screenshots could be taken, which caused discomfort due to the fear of being laughed at or even bullied. Even though there are a few students who preferred to have their camera on,

especially in the upper secondary, the teacher again played a major role; however, rather in a negative way since the students wanted to avoid conflict with the teacher. In the lower secondary, I notice that for the few students, having their camera on felt a bit more like a natural English lesson as they could see their colleagues or had to actually concentrate as they were not tempted to do something else during the lesson.

8 Discussion

In order to find out in how far the Austrian EFL students experienced foreign language speaking anxiety in their digital English lessons during the pandemic, I had a look at various aspects regarding their grade, gender, and confidence in using technology. To find out about relationships between these aspects and the anxiety level, the participants had to fill in a questionnaire whose results were presented in the previous chapter. Now, I will have a closer look at these results and discuss them with reference to findings in earlier studies.

8.1 General anxiety level

To begin with, I was interested in the general anxiety level in the participants. Looking at Figure 10, I noticed that in the lower secondary, the majority of the students regardless of their gender did not feel generally anxious in their digital English lessons. In contrast to this, results in the upper secondary indicate that there is indeed a tendency to feel generally more anxious. Especially, among the female students I noticed that a slight majority felt generally anxious. This tendency towards a higher anxious feeling among the older students may be explained by the fact that especially young adults experience an intense feeling of anxiety due to mental, physical, and emotional changes they go through (Sharma & Sarkar 2020: 278). Moreover, when the participants were asked to explain why they generally felt anxious in their digital English lessons, a common response was their teacher. This was indeed not an unexpected answer because previous researchers (Sharma & Sarkar 2020; Young 1991; Hashemi 2011; Djafri & Wimbarti 2018) suggested teachers to be a potential source of FLA in schools. This would also mean that my results then contradict Kiński's (2021) findings, according to which a teacher's behaviour is a negligible factor regarding FLA. Furthermore, concerning the online format, these results also confirm Salcedo's (2010) and Resnik et al.'s (2023) claim that a teacher who establishes a good relationship with the students in the online environment can influence the anxiety level in a positive way. In my case, the teacher in the upper secondary seemed not to manage a good atmosphere in the online environment, which eventually had a negative impact on the students' learning experience and general anxiety.

However, not only the teacher was a reason for being generally anxious in their digital English classes. One further aspect that was frequently mentioned, especially in the lower secondary, was technology. Even though Teresevičienė et al. (2017) claimed that technology itself does not have such a negative impact on the learning experience, my results indicate that the students indeed had problems with the technology, which then caused them a generally anxious feeling in their digital English lessons. So, in contrast to Teresevičienė et al. (2017), Harsch et al. (2021: 3) suggested that unfamiliar learning environments may increase an anxious feeling in students, which is partly confirmed with my results where unfamiliarity with technology also made some of the learners anxious.

In brief, similar to previous findings, my results show that the teacher can indeed have a major impact on the general anxiety level of students. Furthermore, as already found out by other researchers, my results also prove that technology and insecurities towards it can make students feel more anxious in digital English lessons.

8.2 Foreign language speaking anxiety

Since my main focus in this research was the speaking anxiety that students experienced in their digital English lessons during the pandemic, I included an adapted version of the FLCAS that mainly focused on items measuring communication apprehension or fear of evaluation.

So, first of all, I found that the speaking anxiety score for both, the lower and the upper secondary, was quite moderate; however, with a slightly higher score in the upper secondary. Interestingly, these results contradict Pichette's study findings where more advanced language learners faced a lower anxiety level in the digital learning setting (Pichette 2009: 80). My results may be explained with reference to the general anxiety that was already higher in the upper secondary than in the lower secondary which might be, as Sharma and Sarkar (2020) suggest, due to age-specific factors that specifically impact adolescents. Moreover, these age-related differences could be explained by referring to Onwuegbuzie et al. (1999: 229) who assumed that cognitive abilities decrease with age, which consequentially impacts the experience of anxiety. Related to age, is the number of years learning English as a foreign language which is, as expected, higher in the upper secondary. I thought that this would influence the foreign language speaking anxiety in a positive way since longer exposure to the foreign language is believed to reduce the experience of anxiety towards this language (Onwuegbuzie et al. 1999: 230). However, my results could not support this belief as I could see that the more advanced participants in my study showed a higher speaking anxiety level.

With regard to gender, I noticed that female students tend to score higher on foreign language speaking anxiety, both in lower and upper secondary. However, the gender difference is more significant in the upper secondary, which may be related to the fact that these girls were already generally more anxious in their digital English lessons than their male colleagues. My results then seem to support Kiński's (2021: 117) suggestion that female students feel less comfortable in foreign language classes.

Another aspect that I noticed is that the confidence in using technology seems to impact the experience of speaking anxiety in the digital English lessons. As Figure 13 clearly illustrates, the foreign language speaking anxiety score decreases as the technological confidence level increases in my participants. Apart from this, quite a few students mentioned their low digital literacy as a source of their anxiety in their digital English lessons. This confirms a claim by Shen et al. (2013: 16) who suggested that students who are less experienced in using technology for learning tend to be more anxious about communicating in online classes. So, this is a tendency that I noticed in my study as well.

The detailed analysis of my FLCAS (see Table 2 and 3) shows which situations made most of the students anxious. Item 6 was quite outstanding which shows that students could not concentrate on the English lesson in the digital format. In general, this is a tendency that I had expected as several researchers had already found out that concentration issues were a common problem during the pandemic (Viebrock 2019; Maican & Cocorada 2021; Harsch et al. 2021). However, what I find interesting is that these concentration problems seemed to be more of an issue in the upper secondary, where a significant majority agreed.

From Tables 2 and 3, I can interpret which specific items and situations made the students anxious. Similar to the results that Horwitz et al. (1986) got for their traditional learning environment, participants in my study also endorse items indicative of speech anxiety quite frequently. However, this is mostly only true for results in the upper secondary. Among these items I find that a lot of the students in the upper secondary panicked when they had to speak without preparation, they trembled when they knew they were going to be called on, their heart was pounding, and they got nervous when the teacher asked questions they had not prepared. These results would clearly contradict some previous findings where participants did not feel very anxious about speaking in the online format, or even mentioned a lower anxiety level than in traditional learning settings (e.g., Resnik et al. 2023; Sosas 2021; Russell 2018; Pichette 2009). Nevertheless, my study findings can be compared to other findings that also focused on the students' emotions during the pandemic. These studies showed that the

students indeed experienced an increased speaking anxiety in their digital English lessons (Maqableh & Alia 2021; Maican & Cocoradă 2021). Especially Maican and Cocoradă (2021) found that the students were ashamed of their low proficiency which made them anxious about speaking in their digital lessons. This is an aspect that is also represented in my study results as most students in the upper secondary worried about making mistakes in their digital English lessons (item 2). This is also similar to what Horwitz et al. (1986) found about anxious students in a traditional classroom. My findings then might be indicative of the students' unrealistic beliefs about language learning that Horwitz et al. (1986: 127) mentioned and Young (1991: 428) confirmed to be an important factor influencing the development of FLA.

Interestingly, when the students were asked about particular aspects that made them anxious about speaking in their digital English lessons, some of them mentioned breakout rooms or group speaking activities. I did not expect such answers since, according to some researchers (Maican & Cocorada 2021; Richards 2010), creating learning communities and small groups among the students is considered to be anxiety-reducing. However, as one student commented, being put into breakout rooms happened without preparation which might be a reason why in my study breakout rooms were not so much perceived as positive. These findings might be supported by Djafri and Wimbari (2018: 13) who found out that unprepared oral tasks are considered as anxiety-provoking. Or, maybe the fact that most of the students did not know each other very well additionally influenced the experience of breakout rooms in a negative way. From the students' comments on particular aspects that made them feel anxious about speaking in their digital English lessons, I also found that technology as such again played a major role. It did not surprise me that the bad technology had a negative impact on the students' learning experience since Almusharraf and Bailey (2021: 1285) previously claimed technical issues to be a problem for a positive learning atmosphere. This was also an aspect found within the Austrian context, where Resnik et al. (2023) found insecurities about technology and connectivity as a common source of anxiety during the digital learning phase.

In short, my findings align mostly with previous findings indicating that students indeed experienced foreign language speaking anxiety in their digital English lessons during the pandemic. However, older as well as female students appear to be more prone to this specific anxiety, which I could partly explain by referring to theories from earlier studies. Apart from

these personal factors, I found that technology also contributed to some extent to the experience of foreign language speaking anxiety in the digital English lessons.

8.3 The impact of the camera

Lastly, I was interested in the students' attitude towards the camera and whether it had an impact on how the students felt in their digital English lessons.

Regarding the students' preference for having the camera switched on or off, I found that a considerable majority preferred the camera to be off. This was not an unexpected finding as Chiew (2020: 69) claimed that switching on cameras, causes discomfort in the students. So, this is also something that I found in my study as the majority, regardless of their gender or age, preferred their camera switched off. From my participants' comments, I can subsume that they felt observed or stared at, which is actually in accordance with what Chiew (2020) found. However, an unexpected reason among the students' responses was of ethical nature, namely that other students took screenshots during the lessons. This implies that rules for online behaviour were either missing in the digital English lessons, which, however, Bechtel (2019) pleaded to be of high relevance in digital learning settings. Or, such rules were there, but the teacher could not stop the students from making screenshots as it would be impossible to notice.

Even though the majority of my participants was against using a camera, there were still a few students who actually preferred their camera to be switched on. Their reasons were quite interesting but indeed understandable as they claimed that having their camera on made communication more authentic and gave them a feeling of connectedness.

So, the camera appeared to have an impact on the students' comfort in their digital English lessons. Most of the students found the camera to be switched on more anxiety-provoking as they were not comfortable with it, while the remaining minority thought it to be more comfortable communicating with their camera on in the digital lessons.

9 Implications

In the previous chapters, I have presented my results and have interpreted them with reference to already existing study findings in this topic area. Now, the question is: what can we do with these results? Thus, in the following, I will briefly present some implications that I could draw from my results.

To begin with, digital literacy or confidence in technology seemed to be one of the factors that had an impact on how anxious students felt in their digital English lessons. So, in order to reduce anxiety stemming from insecurities towards technology, institutions could offer students more practice lessons regarding digitalisation. In the Austrian school context, the 8-Punkte-Plan may be one first step towards putting this to practice. By increasing the students' confidence in using technology, their insecurities and anxiety towards using and learning with digital tools will possibly decrease.

Secondly, as mentioned by numerous students in the upper secondary, the teacher played an important role in how the digital English lessons were perceived. So, another implication could be that teachers pay attention to how they treat students in their classes. Self-reflection or specifically asking students for feedback regarding their teaching style might be useful and can indeed support the learning atmosphere in a positive way.

Thirdly, also concerning the teacher's role, I could argue that most students were afraid of making mistakes. Usually, making mistakes is not something bad, so, teachers could encourage students to not be afraid of making mistakes or guide the students to lower their unrealistic beliefs about language learning.

Lastly, I want to mention the camera which seemed to be an issue for many participants in my study. Almost all of the students, regardless of their gender or grade, did not feel comfortable with their camera switched on. It is indeed understandable that teaching towards black squares can be quite frustrating; however, regarding the circumstances, it might be helpful for students to feel less anxious if their camera is turned off in digital lessons. So, in this case, it might be useful to accept the students' preferences. However, as some students mentioned as reasons that colleagues made screenshots that then were used for bullying, I have to say that this implies that students need to be made aware of ethics and netiquette in digital lessons.

10 Limitations and conclusion

In conclusion, I could show that foreign language speaking anxiety was indeed an emotion that the Austrian EFL students in my study experienced in their digital English lessons during the pandemic. Despite its presence, I noticed that this emotion was not generally experienced by all my participants but was rather present in the upper secondary where the participants scored considerably higher on my adapted FLCAS than my participants in the lower secondary. I did not expect these results; however, referring to previous studies it is not surprising since older students tend to be more prone to the experience of language anxiety

(Sharma & Sarkar 2020; Onwuegbuzie et al. 1999). My results behave similarly with regard to gender where I could find that female students, especially in the upper secondary, show a higher foreign language speaking anxiety than their male or non-binary colleagues. These results proof to some extent the assumption that girls are more likely to feel uncomfortable in their language classes (Kiński 2021). Interestingly, students who felt anxious about speaking in the digital English lessons scored high on similar items that anxious participants in the study by Horwitz et al. (1986) did. So, I could find that almost all of the students in my study struggled with concentrating on and paying attention to the English content in their digital English lessons. Such a result proofs that Zoom fatigue, as it was described by Lee (2020: 38), really seemed to be an issue in digital English lessons during the pandemic. Furthermore, other common factors that a lot of the participants in the upper secondary agreed to were the fear of making mistakes, unprepared oral tasks, or an accelerated pulse when they were called on in their digital English lessons. In addition to this, the teacher was often mentioned as a factor that had a negative impact on the foreign language speaking anxiety. In the lower secondary, the students rather seemed to be concerned with the technology as this was an aspect that quite a few students commonly referred to as a source for their anxiety. Lastly, and related to technology as anxiety-provoking, I found that the confidence level in using technology for learning appears to play an important role in the foreign language speaking anxiety that students faced in their digital English lessons during the pandemic. My results indicated that the anxiety level decreased with a rising technological confidence level, which again shows a previous assumption that unfamiliar learning environments can have a negative impact on a student's foreign language speaking anxiety (Harsch et al. 2021: 3).

I will now look at my hypotheses again and see whether I could confirm them or not.

The foreign language speaking anxiety level of Austrian EFL students was quite high in their digital English lessons during the pandemic.

My first hypothesis could only partly be confirmed. The highest possible score that students could get on the adapted FLCAS was 125 indicating a presence of severe anxiety. In my study, however, students in the lower secondary only scored 57,1 and students in the upper secondary scored 74,1. Thus, I could say that in the lower secondary the speaking anxiety level was moderate while in the upper secondary, it was moderately high. So, in my study, none of the groups showed a severely high level of speaking anxiety in the digital English lessons.

Female students show a higher score of foreign language speaking anxiety in their digital English lessons.

With regard to the factor gender, I could clearly confirm my second hypothesis. My results indicate that female students, regardless of their age, were more prone to the experience of foreign language speaking anxiety in their digital English lessons than their male or non-binary colleagues. This was an aspect that was true for both lower and upper secondary even though the gender differences were more evident in the upper secondary than in the lower secondary. Nevertheless, I would even conclude that this tendency could indeed be related to the theory that girls generally tend to be more anxious in language classes.

The level of foreign language speaking anxiety did not differ in lower and upper secondary; however, the factors influencing the experience of anxiety were different.

As the scores indicate, I could see that the anxiety level indeed was different for the two groups: students in the upper secondary clearly show a tendency towards a higher speaking anxiety level than students in the lower secondary. Regarding the reasons, I could only find one specific difference: the teacher as a source of anxiety in the digital English lessons was only mentioned in the upper secondary. Other reasons such as pronunciation or fear of making mistakes and being laughed at were frequently mentioned in both, lower and upper secondary.

In addition to the typical causes of foreign language speaking anxiety, the students also faced anxiety towards the online format or towards losing an academic year.

My fourth hypothesis could again only be partly confirmed. Technology was a factor that was frequently mentioned as a source of anxiety in both, lower and upper secondary students. Not only were they new to using technology for learning, but they also experienced technical issues or did not feel comfortable with the digital tool as it was not equivalent to an authentic English lesson. Another aspect concerning technology is the camera that almost all of the students preferred to have switched off because it made them feel more comfortable in the digital learning environment. So, I can say that technology indeed had an impact on the experience of speaking anxiety in the digital English lessons. However, the second factor regarding the loss of an academic year was not even mentioned once; so, it can be concluded that this was not of any concern for the students in my study.

Students who considered themselves confident with using technology prior to the pandemic, had a lower anxiety level in their digital English lessons.

My fifth hypothesis could clearly be confirmed since I could see how the anxiety score decreased as the confidence level increased. Students who felt very confident with using technology at the beginning of the pandemic even had an anxiety score that was almost half of the anxiety score that students who felt very insecure with technology had. Therefore, digital literacy and feeling confident in using technology seem to be important factors with regard to the experience of anxiety in digital English lessons.

The number of years learning English as a foreign language slightly influenced the level of anxiety experienced in the online setting during the pandemic.

My last hypothesis could again be confirmed even though the results were against my expectations. I did not specifically focus on the exact learning years and their relation to FLA; however, I expected the more advanced the students would be in English as a foreign language, the less anxious they would be. On the contrary, my results showed that students in the lower secondary, who are not as advanced in English as in the upper secondary, showed a lower anxiety level in their digital English lessons. Since I did not have a detailed look at this relationship, I would rather only speculate that the learning years have an impact on the presence of anxiety. To get a more reliable answer on that hypothesis though, I could again have a look at the students' questionnaires and analyse them with a specific focus on the number of years learning English.

Even though my study could already provide some interesting insights, it does not come without its limitations. First, the students were only asked with regard to their digital English lessons but their potential anxiety level in their traditional English lessons is unknown. Nevertheless, it would have been interesting to see whether the anxiety level differs among the same students in different learning environments.

Furthermore, my study is indeed only a small scale one with students attending a specific school type. While the results could be generalised for students in this school, they are not generalisable for the whole Austrian EFL school context. Therefore, this study could function as a basis to enlarge the sample and do some more research in this area. This could provide fruitful insights for educational staff, be it teachers, institutions, or even the ministry, that can help them to understand the experience of FLA in a digital learning setting. An in-depth understanding may be a first step towards changes, so that the anxiety level of students can be reduced if such a surprising change towards digital learning might happen again.

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Appendix

Appendix 1

Fragebogen

Liebe Schülerin, lieber Schüler! Danke, dass du an meiner Studie für meine Masterarbeit an der Universität Wien teilnimmst! Im Folgenden findest du einen Fragebogen, in dem du zu deinem emotionalen Empfinden während des digitalen Englischunterrichts in der Pandemie gefragt wirst. Deine Antworten bleiben anonym und wirken sich nicht auf deine Englischnote aus!

Allgemeine Informationen zu deiner Person

- Wie alt bist du?

12	13	14	15	16	17	18	19
☐	☐	☐	☐	☐	☐	☐	☐

- In welcher Schulstufe bist du?

3. Klasse	4. Klasse	5. Klasse	6. Klasse	7. Klasse	8. Klasse
☐	☐	☐	☐	☐	☐

- Welchem Geschlecht ordnest du dich zu?

- ☐ weiblich
- ☐ männlich
- ☐ divers

- Wie viele Jahre lernst du Englisch bereits als Fremdsprache?

1	2	3	4	5	6	7	8	9	10	mehr
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

- Wie sicher hast du dich vor der Pandemie gefühlt, Technologie fürs Lernen zu verwenden?

sehr unsicher	eher unsicher	eher sicher	sehr sicher
☐	☐	☐	☐

- Wie sicher fühlst du dich jetzt, Technologie fürs Lernen zu verwenden?

sehr unsicher	eher unsicher	eher sicher	sehr sicher
☐	☐	☐	☐

Im Folgenden findest du einen Fragebogen zu deiner emotionalen Einstellung gegenüber dem Englischunterricht während der Pandemie, besonders gegenüber dem Sprechen im Unterricht. Lies die Aussagen genau durch, und entscheide dann, ob die Aussage auf dich sehr zutrifft, eher zutrifft, weder zutrifft noch nicht zutrifft, eher nicht zutrifft, gar nicht zutrifft. Die Fragen beziehen sich auf deinen digitalen Englischunterricht während der Pandemie.

		trifft sehr zu	trifft eher zu	weder noch	trifft eher nicht zu	trifft gar nicht zu
1.	Ich habe mich nie sicher gefühlt, wenn ich in meinem digitalen Englischunterricht gesprochen habe.	☐	☐	☐	☐	☐
2.	Ich habe mir keine Sorgen darüber gemacht, Fehler in meinem digitalen Englischunterricht zu machen.	☐	☐	☐	☐	☐
3.	Ich habe gezittert, wenn ich wusste, dass ich im digitalen Englischunterricht aufgerufen werde.	☐	☐	☐	☐	☐
4.	Es hat mich beängstigt, wenn ich nicht verstanden habe, was der/die LehrerIn im digitalen Englischunterricht gesagt hat.	☐	☐	☐	☐	☐
5.	Es hätte mich nicht gestört, weitere digitale Englischstunden zu haben.	☐	☐	☐	☐	☐
6.	Während des digitalen Englischunterrichts habe ich mich oft dabei erwischt, wie ich an Dinge gedacht habe, die nichts mit dem Englischunterricht zu tun hatten.	☐	☐	☐	☐	☐
7.	Ich dachte ständig, dass die anderen SchülerInnen besser in Englisch sind als ich.	☐	☐	☐	☐	☐
8.	Ich bekam Panik, wenn ich ohne Vorbereitung im digitalen Englischunterricht sprechen musste.	☐	☐	☐	☐	☐
9.	Ich habe nicht verstanden, warum manche SchülerInnen so unzufrieden mit dem digitalen Englischunterricht waren.	☐	☐	☐	☐	☐
10.	Im digitalen Englischunterricht konnte ich so nervös werden, dass ich Dinge vergessen habe, die ich eigentlich weiß.	☐	☐	☐	☐	☐
11.	Es war mir peinlich, mich freiwillig im digitalen Englischunterricht für eine Antwort zu melden.	☐	☐	☐	☐	☐
12.	Selbst wenn ich gut für den digitalen	☐	☐	☐	☐	☐

	Englischunterricht vorbereitet war, fühlte ich mich ängstlich.					
13.	Ich hatte oft das Bedürfnis, meinen digitalen Englischunterricht nicht zu besuchen.	☐	☐	☐	☐	☐
14.	Ich fühlte mich sicher, wenn ich in meinem digitalen Englischunterricht gesprochen habe.	☐	☐	☐	☐	☐
15.	Ich hatte Angst davor, dass mein/e EnglischlehrerIn jeden Fehler, den ich gemacht habe, korrigieren würde.	☐	☐	☐	☐	☐
16.	Ich spürte mein Herz pochen, wenn ich im digitalen Englischunterricht aufgerufen wurde.	☐	☐	☐	☐	☐
17.	Ich hatte immer das Gefühl, dass die anderen SchülerInnen besser Englisch sprechen als ich.	☐	☐	☐	☐	☐
18.	Ich fühlte mich sehr verlegen, wenn ich Englisch online vor den anderen SchülerInnen gesprochen habe.	☐	☐	☐	☐	☐
19.	Der digitale Englischunterricht schritt so schnell voran, dass ich besorgt war, nicht mitzukommen.	☐	☐	☐	☐	☐
20.	Ich fühlte mich in meinem digitalen Englischunterricht angespannter und nervöser als in anderen digitalen Unterrichtsfächern.	☐	☐	☐	☐	☐
21.	Ich wurde nervös und verwirrt, wenn ich in meinem digitalen Englischunterricht gesprochen habe.	☐	☐	☐	☐	☐
22.	Wenn ich meinen digitalen Englischunterricht betrat, fühlte ich mich sicher und entspannt.	☐	☐	☐	☐	☐
23.	Ich wurde nervös, wenn ich nicht jedes Wort verstanden habe, das der/die EnglischlehrerIn gesagt hat.	☐	☐	☐	☐	☐
24.	Ich hatte Angst davor, dass die anderen SchülerInnen mich auslachen würden, wenn ich Englisch spreche.	☐	☐	☐	☐	☐
25.	Ich wurde nervös, wenn der/die EnglischlehrerIn Fragen gestellt hat, auf die ich mich nicht vorbereitet hatte.	☐	☐	☐	☐	☐

Ein paar weitere Fragen

- Hast du dich im digitalen Englischunterricht allgemein ängstlich gefühlt?

ja ☐	nein ☐
--------------------------------	----------------------------------

Falls ja, warum?

- Hast du dich im digitalen Englischunterricht wohler gefühlt, wenn deine Kamera an oder aus war? Warum?

an	aus
☐	☐

- Gab es etwas bestimmtes, das dich beim Sprechen im digitalen Englischunterricht ängstlich gemacht hat?

ja	nein
☐	☐

Falls ja, was war das & warum?

- Was hätte dir geholfen, damit du dich weniger ängstlich/wohler dabei gefühlt hättest, in deinem digitalen Englischunterricht zu sprechen?

- Möchtest du noch etwas hinzufügen, was deine Gefühle im digitalen Englischunterricht betrifft und bisher nicht erwähnt wurde?

Thank you very much!

Appendix 2

	SA*	A	N	D	SD
1. I never feel quite sure of myself when I am speaking in my foreign language class.	11**	51	17	20	1
2. I <i>don't</i> worry about making mistakes in language class.	11	23	1	53	12
3. I tremble when I know that I'm going to be called on in language class.	5	16	31	29	19
4. It frightens me when I don't understand what the teacher is saying in the foreign language.	8	27	29	20	16
5. It wouldn't bother me at all to take more foreign language classes.	15	47	12	16	11
6. During language class, I find myself thinking about things that have nothing to do with the course.	7	19	31	32	12
7. I keep thinking that the other students are better at languages than I am.	13	25	20	28	13
8. I am usually at ease during tests in my language class.	5	35	19	20	21
9. I start to panic when I have to speak without preparation in language class.	12	37	19	28	4
10. I worry about the consequences of failing my foreign language class.	25	17	12	29	16
11. I don't understand why some people get so upset over foreign language classes.	5	17	36	37	4
12. In language class, I can get so nervous I forget things I know.	9	48	11	25	7
13. It embarrasses me to volunteer answers in my language class.	0	9	19	57	15
14. I would <i>not</i> be nervous speaking the foreign language with native speakers.	5	12	17	51	15
15. I get upset when I don't understand what the teacher is correcting.	1	31	28	37	3
16. Even if I am well prepared for language class, I feel anxious about it.	5	37	17	24	16
17. I often feel like not going to my language class.	19	28	19	23	12
18. I feel confident when I speak in foreign language class.	1	28	24	43	4
19. I am afraid that my language teacher is ready to correct every mistake I make.	0	15	31	40	15
20. I can feel my heart pounding when I'm going to be called on in language class.	5	27	19	37	12

	SA*	A	N	D	SD
21. The more I study for a language test, the more confused I get.	4	12	8	48	28
22. I <i>don't</i> feel pressure to prepare very well for language class.	3	12	19	44	23
23. I always feel that the other students speak the foreign language better than I do.	12	19	25	31	13
24. I feel very self-conscious about speaking the foreign language in front of other students.	3	25	19	47	7
25. Language class moves so quickly I worry about getting left behind.	16	43	11	28	3
26. I feel more tense and nervous in my language class than in my other classes.	13	25	19	31	12
27. I get nervous and confused when I am speaking in my language class.	5	28	28	31	8
28. When I'm on my way to language class, I feel very sure and relaxed.	5	27	40	24	4
29. I get nervous when I don't understand every word the language teacher says.	3	24	24	43	7
30. I feel overwhelmed by the number of rules you have to learn to speak a foreign language.	9	25	32	32	1
31. I am afraid that the other students will laugh at me when I speak the foreign language.	3	7	20	53	17
32. I would probably feel comfortable around native speakers of the foreign language.	5	23	20	41	11
33. I get nervous when the language teacher asks questions which I haven't prepared in advance.	5	44	17	31	3

*SA = strongly agree; A = agree; N = neither agree nor disagree; D = disagree; SD = strongly disagree.

**Data in this table are rounded to the nearest whole number. Percentages may not add to 100 due to rounding.

(Horwitz et al. 1986: 129–130)

Appendix 3

Einverständniserklärung

Sehr geehrte Eltern und Erziehungsberechtigte!

Ich studiere derzeit an der Universität Wien das Lehramtsstudium Englisch/Französisch und interessiere mich sehr für die Rolle, die Emotionen der Schülerinnen und Schüler beim Englischlernen spielen. Emotionen im Unterricht können den Lernprozess sowohl positiv als auch negativ beeinflussen, was sich weiters auf die Motivation und Lernleistung auswirken kann. Daher schreibe ich auch meine Masterarbeit zu diesem Thema, unter der Betreuung von Prof. Julia Hüttner (Julia.Huettner@univie.ac.at). Ziel der Studie ist es, durch einen Fragebogen Informationen über die Gefühle der Schülerinnen und Schüler beim digitalen Englischunterricht während der Pandemie zu bekommen.

Im Rahmen dieser Arbeit möchte ich eine Studie an der Schule Ihres Kindes durchführen und bitte Sie (und Ihren Sohn bzw. Ihre Tochter) hier um Unterstützung. Es soll ein Eindruck gewonnen werden, welche Emotionen Englischlernerinnen und –lerner v.a. beim Sprechen in der Fremdsprache im online-Unterricht hatten, z.B. Freude, Angst, Nervosität, und dazu Fragen beantwortet werden (ein Fragebogen). Die Studie findet während des regulären Englischunterrichts statt. Ich wäre sehr dankbar, wenn Sie Ihrem Kind gestatten würden, an dieser Studie teilzunehmen.

Der genaue Ablauf ist wie folgt:

1. Im Fragebogen werden erstens Daten der TeilnehmerInnen zu Alter, Geschlecht, Jahrgang, Lernjahre von Englisch, und Einschätzung der IT-Kenntnisse, und zweitens, die emotionale Einstellung zum Englischunterricht, besonders dem Sprechen, im digitalen Lernsetting zu Zeiten der Pandemie, erhoben. Die Dauer des Fragebogens beträgt in etwa 15 Minuten.

Die gesammelten Daten sind **anonymisiert**, sodass niemand erkennen kann, von wem welcher Fragebogen stammt. Die Daten werden ausschließlich für meine Forschung verwendet, sicher aufbewahrt und niemandem weitergegeben. Die Ergebnisse werden zusammengefasst und in meiner Masterarbeit schriftlich analysiert.

Die Teilnahme an diesem Projekt ist **freiwillig** und auch während der Durchführung kann die Teilnahme jederzeit ohne Angabe von Gründen beendet werden. Selbstverständlich hat die Teilnahme oder Nichtteilnahme am Forschungsprojekt keinen Einfluss auf die Schulnote Ihres Kindes.

Die Studie wurde von der Schulleitung bewilligt und die/der EnglischlehrerIn Ihres Kindes ist von der Studie informiert und unterstützt sie.

Sollten Sie mehr Informationen benötigen oder Fragen haben, stehe ich Ihnen gerne zur Verfügung. Sie können mich per Email unter a01628789@unet.univie.ac.at bzw. telefonisch unter 0650/8445818 erreichen.

Da die Masterarbeit für meinen Studienabschluss erforderlich ist, wäre ich für Ihre Unterstützung sehr dankbar.

Mit freundlichen Grüßen,

Forschung wird durchgeführt von:
Valentina Maria Bruckner, BEd

Einverständniserklärung

Ich, _____, willige ein, dass mein Kind,
_____, an der oben beschriebenen Studie teilnimmt.

Datum

Unterschrift

Appendix 4

FLCAS items with percentages of female students selecting each alternative

☐	lower secondary
☐	upper secondary

		SA*	A	N	D	SD
1.	I never felt quite sure of myself when I was speaking in my online English class.	5 9	20 32	8 21	38 32	30 5
2.	I didn't worry about making mistakes in my online English class.	10 2	43 23	10 9	28 46	10 21
3.	I trembled when I knew that I was going to be called on in my online English class.	3 23	20 30	5 16	23 18	50 14
4.	It frightened me when I didn't understand what the teacher was saying in English.	13 11	15 27	8 11	23 27	43 23
5.	It wouldn't have bothered me at all to have more online English classes.	20 7	28 23	20 25	20 25	10 21
6.	During my online English class, I found myself thinking about things that had nothing to do with the course.	23 30	38 43	13 14	20 11	10 2
7.	I kept thinking that the other students were better at English than I was.	10 23	18 21	15 18	18 18	40 21
8.	I started to panic when I had to speak without preparation in my online English class.	13 27	18 27	13 21	28 18	30 7
9.	I didn't understand why some people got so upset over online foreign language classes.	8 5	20 16	48 25	15 39	10 16
10.	In my online English class, I could get so nervous that I forgot things I know.	0 14	10 23	3 18	43 25	45 21
11.	It embarrassed me to volunteer answers in my online English class.	15 9	5 36	8 16	20 27	53 11
12.	Even if I was well prepared for English class, I felt anxious about it.	5 16	13 30	10 21	20 21	53 14
13.	I often felt like not going to my online English class.	8 9	20 27	8 14	18 23	48 27
14.	I felt confident when I spoke in my online English class.	20 5	33 16	10 34	25 36	13 9
15.	I was afraid that my language teacher was ready to correct every mistake I made.	8 20	18 27	15 16	30 32	30 5
16.	I could feel my heart pounding when I was going to be called on in my online English class.	8 25	25 50	5 7	30 9	33 9
17.	I always felt that the other students spoke English better than I did.	8 18	13 18	13 23	33 21	35 21
18.	I felt very self-conscious (=verlegen) about speaking English online in front of other students.	8 18	18 36	15 14	25 25	35 7
19.	Online English class moved so quickly that I worried about getting left behind.	10 2	10 14	25 11	18 46	38 27
20.	I felt more tense and nervous in my online English class than in my other online classes.	0 18	8 8	13 14	20 30	60 30
21.	I got nervous and confused when I was speaking in my online English class.	0 11	18 25	10 18	38 34	35 11
22.	When I was about to enter my online English class, I felt very sure and relaxed.	13 5	45 25	18 23	25 32	3 16
23.	I got nervous when I didn't understand every word the English teacher said.	13 9	13 34	8 16	33 25	35 16
24.	I was afraid that the other students would laugh at me when I spoke English in my online English class.	20 18	5 27	18 14	28 27	30 14
25.	I got nervous when the English teacher asked questions which I hadn't prepared in advance.	15 25	25 41	18 18	25 7	18 9
* SA = strongly agree; A = agree; N = neither agree nor disagree; D = disagree; SD = strongly disagree						

FLCAS items with percentages of male students selecting each alternative

		SA*	A	N	D	SD
1.	I never felt quite sure of myself when I was speaking in my online English class.	4 0	6 36	9 7	49 29	34 29
2.	I didn't worry about making mistakes in my online English class.	19 21	47 36	9 0	17 29	9 14
3.	I trembled when I knew that I was going to be called on in my online English class.	4 7	11 29	9 7	13 14	62 43
4.	It frightened me when I didn't understand what the teacher was saying in English.	6 0	28 29	9 0	28 14	32 57
5.	It wouldn't have bothered me at all to have more online English classes.	28 14	30 0	6 50	21 14	15 21
6.	During my online English class, I found myself thinking about things that had nothing to do with the course.	30 64	15 14	13 21	34 0	9 0
7.	I kept thinking that the other students were better at English than I was.	4 0	13 7	21 29	28 0	32 64
8.	I started to panic when I had to speak without preparation in my online English class.	2 14	21 29	13 7	30 21	34 29
9.	I didn't understand why some people got so upset over online foreign language classes.	23 0	19 14	30 50	11 21	19 14
10.	In my online English class, I could get so nervous that I forgot things I know.	4 7	15 29	15 0	23 0	45 64
11.	It embarrassed me to volunteer answers in my online English class.	2 0	4 21	15 7	11 36	68 36
12.	Even if I was well prepared for English class, I felt anxious about it.	2 0	4 7	13 7	28 29	53 57
13.	I often felt like not going to my online English class.	9 7	13 43	6 7	15 21	57 21
14.	I felt confident when I spoke in my online English class.	28 36	36 21	26 21	6 7	4 14
15.	I was afraid that my language teacher was ready to correct every mistake I made.	4 7	11 14	11 14	47 21	30 43
16.	I could feel my heart pounding when I was going to be called on in my online English class.	6 14	13 7	6 7	17 29	57 43
17.	I always felt that the other students spoke English better than I did.	11 0	11 7	17 7	13 36	45 50
18.	I felt very self-conscious (=verlegen) about speaking English online in front of other students.	4 7	9 14	11 21	34 21	45 36
19.	Online English class moved so quickly that I worried about getting left behind.	2 0	13 0	9 7	43 29	34 64
20.	I felt more tense and nervous in my online English class than in my other online classes.	0 7	9 14	13 0	15 29	62 50
21.	I got nervous and confused when I was speaking in my online English class.	2 7	2 21	11 7	32 14	53 50
22.	When I was about to enter my online English class, I felt very sure and relaxed.	21 14	47 43	21 14	4 21	6 50
23.	I got nervous when I didn't understand every word the English teacher said.	6 7	11 21	28 7	23 21	32 43
24.	I was afraid that the other students would laugh at me when I spoke English in my online English class.	4 0	11 21	6 0	21 21	57 57
25.	I got nervous when the English teacher asked questions which I hadn't prepared in advance.	11 7	13 21	17 14	34 21	26 36
* SA = strongly agree; A = agree; N = neither agree nor disagree; D = disagree; SD = strongly disagree						

Abstract

In 2020, the global COVID-19 pandemic led to an enormous change in the world of teaching and learning – while technology previously only had little relevance in teaching, it then became an integral part of it. Schools had to close down, and teachers were forced to change their teaching mode to online lessons.

But what has this shift in teaching and learning style done to the learning experience of students? One common issue that seems to be a widespread phenomenon and that has long been observed in language students is foreign language (speaking) anxiety. While foreign language speaking anxiety has already been researched a lot in the offline EFL classroom, there is only little data about this type of anxiety in the online EFL classroom. In current times, it, however, seems of high relevance, for teachers as well as educational institutions, to understand the impact of an online learning environment on students' learning experience. Thus, in this thesis I aimed at finding out about the experience of foreign language speaking anxiety of Austrian EFL students in their digital English lessons during the pandemic.

For my research, 146 Austrian EFL students of lower and upper secondary were examined. By the help of a questionnaire, partly consisting of an adapted FLCAS scale, I could calculate the individual anxiety level for each participant, examine personal reasons for experiencing anxiety, and put these findings into relation to different factors like age, gender, or digital literacy. I could show that FLA was indeed an issue in the English online classroom during the pandemic. Various factors like age, gender, the teacher, or the learning environment played an important role in how foreign language anxiety was experienced. Female students seemed to be more prone to anxiety in online learning; furthermore, students in the upper secondary showed a higher level of anxiety during their online lessons. Often the teacher was mentioned as the source of the students' anxiety, but inexperience in using digital media also had a negative impact on the experience of the online English lessons.

My research findings could provide fruitful insights that can be considered by teachers and educational institutions when planning future online language classes so that a positive, anxiety-free learning is ensured.

Abstract deutsch

2020 hat die weltweite COVID-19 Pandemie zu einer enormen Veränderung in der Welt des Lehrens und Lernens geführt – während Technologie zuvor nur wenig Relevanz im

Unterrichten gespielt hat, wurde sie ab diesem Zeitpunkt ein wesentlicher Bestandteil davon. Schulen mussten schließen und Lehrpersonen waren gezwungen, ihren Unterrichtsstil in digitale Unterrichtsstunden zu ändern.

Aber was hat dieser Wechsel an Lehr- und Lernstil mit der Lernerfahrung der SchülerInnen gemacht? Eine bekannte Problematik, die ein weit verbreitetes Phänomen zu sein scheint und das bereits lange Zeit bei Sprachlernenden beobachtet wurde, ist Fremdsprachenangst. Während die Fremdsprachenangst bereits gut im traditionellen Englisch-Unterricht erforscht ist, gibt es nur wenige Daten zu jener Angst im digitalen Unterricht. In den heutigen Zeiten scheint es aber von besonderer Bedeutung zu sein, sowohl für Lehrer als auch Bildungsinstitutionen, den Einfluss von digitalen Lernumgebungen auf die Lernerfahrung von SchülerInnen zu verstehen. Daher hatte meine Untersuchung zum Ziel, die Erfahrung von Fremdsprachensprechangst von österreichischen SchülerInnen in ihrem digitalen Englisch-Unterricht während der Pandemie zu erforschen.

Für meine Forschung habe ich 146 österreichische SchülerInnen der Unter- und Oberstufe untersucht. Durch die Verwendung eines Fragebogens, der zum Teil aus einer adaptierten Version des FLCAS bestand, konnte ich das Angstlevel der einzelnen TeilnehmerInnen berechnen, persönliche Gründe für die Angsterfahrung untersuchen und diese Ergebnisse in Beziehung zu unterschiedlichen Faktoren wie Alter, Geschlecht oder digitale Kompetenzen setzen. Ich konnte zeigen, dass Fremdsprachenangst tatsächlich ein Problem im digitalen Englisch-Unterricht während der Pandemie gewesen ist. Verschiedene Faktoren wie Alter, Geschlecht, die Lehrperson oder die Lernumgebung spielten eine wichtige Rolle dabei, wie Fremdsprachenangst erlebt wurde. Weibliche Schülerinnen neigen eher zu Angst im digitalen Unterricht; weiters zeigten SchülerInnen der Oberstufe ein höheres Angstlevel während der digitalen Unterrichtsstunden. Die Lehrperson wurde oft als Quelle für die Angst erwähnt, aber Unerfahrenheit in der Nutzung digitaler Medien hatte ebenso eine negative Auswirkung auf das Erleben der digitalen Englisch-Unterrichtsstunden.

Meine Forschung konnte ertragreiche Einblicke geben, die von Lehrpersonen oder Bildungsinstitutionen berücksichtigt werden können, wenn zukünftig digitaler Sprachunterricht geplant wird, sodass ein positives, angstfreies Lernen gewährleistet ist.