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List of abbreviations

AHS	Allgemeinbildende höhere Schule
ARAS	ascending reticular activating system
CLT	Communicative Language Teaching
EFL	English as foreign language
EEG	Electroencephalography
FLCAS	Foreign Language Classroom Anxiety Scale
GPA	Grade point average
ORF	Österreichischer Rundfunk
WTC	Willingness to Communicate in L2

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1. Introduction

In many English language classes in Austria, teachers face the issue that students are often reluctant to practise their oral speaking skills in English and switch to their mother tongue during speaking exercises if the teacher does not pay attention. According to communicative language teaching (CLT), oral communication skills are increasingly important for students to develop in their English classes. Thus, the improvement and support of student L2 talk is of central interest to language teachers. In the literature about language teaching methodology, several factors and techniques are mentioned to foster students' willingness to communicate (WTC) and to minimize or even prevent foreign language classroom anxiety (FLCA), which is a major cause of students remaining silent. In this paper, the use of background music is investigated, because it is likely to be conducive in student speaking exercises in the classroom, according to theories of emotional arousal, affective variables and music therapy. There exists a considerable amount of research on the impact of background music on learning, which tends to result in positive outcomes in music conditions. However, the findings in these studies are not conclusive, since learner performance is dependent on the precise task requirements, the type of background music, learner's personality and situational context variables, which render it difficult to generalize the studies or predict the outcomes of future studies. Moreover, the repetitive demand in the literature for further investigation in this research field, especially with regard to different age groups, reinforces academic discussion of the topic. To this end, I conduct a small qualitative empirical study, where I investigate two different English classes, i.e. a 5th and 6th grade in upper secondary school with two different English teachers. The aim of the study is to observe the classroom atmosphere that influences the method of background music in speaking tasks. This has been done with student questionnaires and teacher interviews before and after the study in addition to my own field notes during classroom observation.

In the first section of the paper, the research questions and design will be presented, which guide the subsequent theoretical part on the development of music and music therapy in the context of educational purposes. Section four then discusses advantages of using music and especially background music in the English as foreign language (EFL) classroom due to adolescents' intense consumption of music, and shines light on today's relevance in academic teacher training programs. In section five, current

theories on emotion, arousal and cognition in relation to background music are discussed, before section six elaborates recent findings on the impacts of background music. Section seven deals with the importance of spoken communication in the EFL classroom and how WTC can be fostered via background music. Finally, the last two sections present the outcomes of the empirical study and provide pedagogical implications.

2. Study rationale and methodology

In this section, the purpose and context of the study is elucidated to introduce the topic and aim of this research project. Moreover, the research questions and assumptions on the outcomes are stated, which guide the research design and methodology, before section 3 delivers the theoretical background.

2.1 Purpose and rationale

The purpose of this study is to investigate if background music during speaking tasks in the English as foreign language class can foster student's talk in the foreign language. There exist several reasons why background music can support the teacher in creating a comfortable classroom atmosphere in order to encourage students to communicate in the target language. This is of vital importance, since many foreign language classrooms face the issue that participants feel great inhibitions when it comes to speaking exercises, which often end up in silence or students chatting in their mother tongue. Therefore, many teachers have established various strategies to encourage their students to fulfil the speaking tasks and gain as much practice as possible. My research project intends to provide another strategy to maximize students' L2 talk to improve oral communication skills in the foreign language classroom.

The general idea and common belief behind this research topic is that music accompanies many activities in daily life, being a medium of great enjoyment for everyone, so it could also render English lessons more enjoyable. For instance, most people listen to the radio or music from other sources while driving their car, but they turn down the volume if they have to concentrate on the navigation system or are in the process of parking. This phenomenon has to do with arousal and cognitive space (see section 5), which can either improve or hinder performance on various tasks. In this paper it will be investigated if the same phenomenon could be beneficial in school

during speaking activities, given the contextual factors are appropriate. Furthermore, social behaviour such as maintaining friendship by going for a drink with a friend, while talking about daily problems and experiences, often takes place in a background music environment rather than in complete silence. Nowadays, there seems to be no social venue without music playing in the background. Thus, speaking tasks in the classroom would become more like non-school contexts with some background music.

In fact, the primary article, which served as an inspiration for this thesis, investigates University students' reaction and behaviour during group discussions with background music (cf. Cunningham 2014). The results of the study are promising and reveal that almost all of the participants recommend the method and would also use it for their own teaching. Furthermore, none of the students experienced the background music as negative, with almost half of them reporting a positive experience and the rest having a neutral position to it (Cunningham 2014: 185). An interesting feedback comment by one of the participants says that "there is always a background sound, so I don't have to make the 'silent moment' if I really have nothing to say" (Cunningham 2014: 185). In addition, almost half of them mentioned a mood-enhancing effect of the music. Finally, Cunningham (2014: 187) implies that "[f]urther research considering teachers' views on using music in language learning situations will [...] be useful", also with regard to younger learners (Cunningham 2014: 179). This is exactly what this study intends to do by conducting teacher interviews. Going on from these statements, my research questions and assumptions are formulated.

2.2 Research questions and assumptions

On the topic of background music for speaking tasks in the EFL classroom, the following research questions are posed:

1. Does background music render it easier for students to start their conversations and keep them?

Assumptions: Background music will make it easier for students to start and maintain conversation, because they do not have to fill a silent moment.

Background music facilitates keeping conversations going, because of the increased pro-social behaviour evoked by the music.

2. Does background music increase students' arousal level to an optimum to improve concentration levels on the speaking task?

Assumption: Students are able to concentrate better on the speaking task, due to the increased emotional arousal induced by the background music.

3. Can background music increase students' willingness to communicate via its mood-enhancing impact on the classroom atmosphere?

Assumptions: Background music might facilitate students' willingness to communicate by creating a comfortable classroom atmosphere. If students feel stressed or even anxious during speaking tasks in their foreign language class, background music might be able to relieve their stress.

4. Which kind of background music is appropriate for speaking exercises in the context of a foreign language classroom?

Assumption: Familiar background music might be more motivating for students during speaking exercises than completely unknown music.

2.3 Research design

To gather my data for the empirical study, I chose to conduct interviews with the teachers before and after the empirical research project, in order to investigate the teachers' attitudes and opinions on the method of background music during speaking tasks. The interviews and my personal reflection on them are discussed in section 9. The students' opinions on the use of background music are obtained with two questionnaires before and after the intervention in the classroom.

3. The use of music for educational purposes – historical development

The positive effects of music on the human body and the soul have a long history that traces back to the ancient Greeks according to Jane W. Bancroft (1985: 4-7), who in her book "Music Therapy and Education" describes how music therapy developed from the earliest written records until today. The Greeks for example, used music primarily for therapeutic purposes rather than for aesthetic reasons. Plato also once said that music is the "medicine of the soul" (Bancroft 1985: 5), which points to the fact that music therapy was used in ancient times to heal mental and physiological illnesses. Additionally, in Greek mythology and the Bible stories about the power of music on the soul can be found (Bancroft 1985: 4). For example, the Greek god Orpheus is capable of soothing savage beasts with his music and a reference in the Bible says: "And it came to pass, when the evil spirit from God was upon Saul, that David took an harp, and played

with his hand: so Saul was refreshed, and was well, and the evil spirit departed from him.” (I Samuel 16:23) (Bancroft 1985: 4). So, the Greeks more than three thousand years ago, already recognized the emotional effects of music and realized that mental and physical well being are interconnected, which is also palpable in their dedication of music to the god Apollo (Bancroft 1985: 4). Moreover, one of the first modern hospitals in the Western world continuously played music to their patients in order to alleviate their mental strains (Bancroft 1985: 5). In the Renaissance, the influence of music on the human mind was rediscovered, especially in the field of medicine (Bancroft 1985: 5). During the 18th century, great interest in the physiological effects such as breathing, the heart rate, blood pressure and digestion emerged due to listening to music (Bancroft 1985: 6). In the 19th century, this connection between arts and the body has been downgraded until its reimplementation in modern psychotherapy (Bancroft 1985: 6).

During WW I and WW II, music served as a morale builder and was again played in hospitals to relieve the psychological distress of the vast number of war victims, because individual psychotherapy was not feasible according to the high number of patients (Bancroft 1985: 6). After WW II, music therapy was particularly implemented for patients suffering from autism, for people with behavioural disorders and children with physical, mental and emotional disorders (Bancroft 1985: 7). In the 1940s and 50s more research in the field of music therapy was conducted to substantiate the causal relationship between music and mental and physiological health (Bancroft 1985: 6). Until today, the influence of music on the psyche and brain functions, and hence, its influence on human behaviour is under research for medical and commercial as well as for educational purposes (Juslin & Västfjäll 2008; Guétin et al. 2009; Thoma et al. 2013; Garlin & Owen 2006; Kämpfe, Sedlmeier & Renkewitz 2010). This long history of music indicates that the effects of music are not bound to a specific type of music or to a particular culture, but all human beings regardless of their language or social background experience an emotional arousal when listening to music. Therefore, it is reasonable to assume that music in the language classroom might evoke some sort of emotional response in the students that could be supportive to their speaking exercises. Moreover, Bancroft (1985:4) mentions in her book: “Since music facilitates learning and makes it more pleasant [...], it can be said, in conclusion, that music therapy can be of real benefit in education.” One psychotherapist and lecturer in Sofia, Bulgaria called Georgi Lozanov was one of the first who, therefore, devised a teaching method called

Suggestopedia that included music to support learning foreign languages. In the following section, this teaching method is presented due to its worldwide reputation and its frequent quotation in the literature related to learning with background music.

3.1 Suggestopedia in foreign language learning

Georgi Lozanov founded a teaching method that focuses on the mental well being of learners through various elements, where music plays an essential role. In 1971, he wrote the book “Suggestology and Outlines of Suggestopedy”, which contains his teaching method and the description of his empirical research with experimental groups of students and adults (Edelmann 1988: 34). In fact, Suggestopedia is all about establishing a relaxed mental state that allows the learner to accelerate beyond his mental capacities (Erskine 2002: 37). This is achieved primarily in a comfortable and stress-free learning atmosphere, where participants overcome their inhibitions, show a positive attitude towards the lesson and believe in their success (Edelmann 1988: 33; 53).

The method of Suggestopedia, as developed by Lozanov, consists of three different stages, a pre-phase of about 90 minutes, where the new material is presented, a suggestology phase with active and passive sections and a post-phase for repetition and practice, which takes place at the beginning of the following day (Edelmann 1988: 35-36). In these sessions, active and passive learning sequences alternate, including creative practising activities such as role play, singing, games or story-telling (Edelmann 1988: 36; Bancroft 1985: 14). In this method, one important principle demands that the practical and receptive tasks are balanced (Edelmann 1988: 53). On a normal four-hour day of the program, this practical part takes place at the beginning of the session as a revision of the material learned the day before (Bancroft 1985: 14). After that, new material is discussed with translations and grammar explanations and dialogues, followed by the most important part – the séance, where the new content is consolidated with music and relaxation techniques (Bancroft 1985: 14). However, the music in the third part is not only in the background, but has an aesthetic function in connection with the artistic reading methods of the teacher, being more like music in a concert (Edelmann 1988: 35).

In the suggestopedic séance, the rhythm and intonation as well as the facial expression and gestures of the teacher are essential for the learning process of the participants (Edelmann 1988: 41). In fact, the partly unconscious decoding of meaning, which is implicated in the voice quality of the reader and the social environment of the classroom, is a main factor in this theory, which Lozanov calls “suggestion” (Edelmann 1988: 38). People make meaning not only from the literal and verbal texts they are confronted with, but even more from the teacher’s nonverbal communication (Edelmann 1988: 41). In this nonverbal, unconscious communication between the teacher and the students, trust and respect have to be established through the authority of the teacher and the infantilisation of the students (Bancroft 1999: 26). In that kind of relationship, a mental calmness can be evoked in the learner group that builds the core element of Lozanov’s language learning theory. In that mental state (pseudopassivity or mental relaxation), with the help of classical, soothing music, optimal retention of learning content can be achieved (Edelmann 1988: 41-42). In Edelmann’s review of Lozanov’s Suggestopedy, he summarizes eight principles underlying the suggestopedic teaching theory:

1. Betonung der parabewußten Beeinflussung des Lernens [...]
 2. Überwindung von Lernhemmungen [...], Schaffung einer von positiven Emotionen geprägten Lernatmosphäre und Herstellung von Erfolgszuversicht.
 3. Betonung des Beziehungsaspektes zwischen Lehrer und Schüler. [...]
 4. Lernen findet weitgehend in einem Zustand der Entspannung statt. [...]
 5. Darbietung des Lehrstoffes mit Musik. Die Musik ist, mindestens im zweiten Konzert, nicht nur Hintergrundmusik, sondern soll ein ästhetisches Erlebnis sein.
 6. Eher analytische Phasen, die durch Aktivität des Lerners ausgezeichnet sind, wechseln sich ab mit solchen, bei denen der Lerner eher passiv und rezeptiv zu sein scheint. [...]
 7. Lernen auf zwei Ebenen. [...] [N]eben den [...] sprachlich übermittelten Informationen [spielen] auch dramatische Gestaltung (Dialoge, Intonation, Rhythmus) und Imagination eine große Rolle.
 8. [...] Die Übungsphasen dauern mindestens solange wie die Präsentationsphasen. [...]
- [1. Emphasis on the subconscious influence of learning [...]
 2. Overcoming of learning inhibitions [...], establishing a learning atmosphere which is characterised by positive emotions and the creation of confidence of success.
 3. Emphasis on the relationship between teacher and student. [...]
 4. Learning takes place in a relaxed condition.
 5. Presentation of learning material with music. The music is, at least in the second concert, not only background music, but also an aesthetical experience.

6. Rather analytic sequences, which are characterised by learner activity, alternate with other sequences where the learner seems to be rather passive or receptive. [...]
7. Learning on two levels. [...] Besides the verbal transmission of information, dramatic design (dialogues, intonation, rhythm) and imagination play a big role.
8. [...] The duration of the practical sequences last at least as long as the presentation sequences. [...] (Edelmann 1988: 53)

Although these principles seem promising, there has been a lot of criticism concerning Lozanov's Suggestopedia. One of the main arguments against the method is that it lacks scientific verification due to incomplete documentation, contradicting argumentation and unclear or missing definitions of technical terms (Bancroft 1999: 16, 48, 52, 67). In addition to the vague definitions, the concepts of validity, reliability and objectivity are not discussed, which explains why control groups or multivariate analyses are totally missing in the teaching theory (Lozanov 1979: 414-425). Thus, it is not easily replicable which elements (music, teacher-student rapport, material) of Lozanov's program had the greatest impact on the learning outcomes of the participants, neither are the overall results verifiable (Bancroft 1999: 67). On top of these issues, Edelmann (1988: 34) and Bancroft (1999: 16) lament that it is difficult and confusing to read, because the arguments and the data are dispersed throughout the book, whereby one has to read the book several times to collect and combine the information to finally make sense of it. Nevertheless, educational researchers still value his work and consider it highly interesting for future studies, because of the positive feedback of the participants and the astounding results of his program (Bancroft 1985: 16).

Edelmann (1988: 79-81) concluded that not the method as a whole, but the principles contained in it are of great value. For example, the student teacher relationship, the nonverbal communication in class, the motivation and encouragement of the students and the comfortable learning atmosphere in combination with background music could be integrated in conventional classroom teaching. Additionally, the inclusion of creative tasks and the activation of multiple senses are important teaching principles to consider, as well as the balanced presentation and the management of practise time. Finally, Edelmann (1988: 81) mentions that Lozanov's theory would be particularly useful for intensive language courses to make them more enjoyable. Bancroft (1999: 52) agrees on the same points as Edelmann, asserting that the suggestive method can be integrated in

the classroom, because in this teaching method, the learner's social and emotional side is taken into consideration besides mental capabilities:

Methods for language acquisition emphasize the importance of a 'low-anxiety' environment, as well as the personality of the teacher and student/teacher rapport. The classroom atmosphere is non-threatening and there is constant positive feedback regarding student achievement. Learning by these methods is 'holistic' in that the learning process contributes to the personal growth and satisfaction of the student. (Bancroft 1999: 8)

On the whole, Lozanov's Suggestopedia developed useful concepts and principles for language learning that focus on the social environment and the emotional satisfaction of the learner. However, this theory utilizes the music in the first place to memorize a massive amount of vocabulary in a short time, whereas in this study the focus is not on the process of memorising content, but on the creation of a motivating environment through emotional arousal. The next two sections deal with the emergence of classic music and its alleged ability to enhance learning, as it is still believed today that listening to classic music, such as Mozart, might be particularly fruitful.

3.2 Classic music for enhanced learning - The Tomatis Method

Around the same time as Lozanov founded his theory of Suggestopedia in Sofia, Alfred Tomatis in France commenced his scientific study on the connection between auditory stimuli in the ear and the nervous system. On this basis he created a therapy program, which is called the Tomatis Method (Thompson & Andrews 2000: 175). In their article Thompson and Andrews (2000) describe the Tomatis Method, which comprises fundamental theory of many subsequent publications on listening to Mozart for enhanced cognitive learning performance. However, Thompson and Andrews claim in their article that most of these publications oversimplify the Tomatis Method without providing a theoretical basis. Thus, in the following, a brief account on the Tomatis Method will be given.

Dr. Tomatis was one of the first to discover the connection between the ear and the nerve system of the brain, which is responsible for a number of functions. We do not only listen and hear sounds with our ears, but we also process and control voice and language, rhythm, spatial awareness, coordination and balance of the body, eye movement and learning abilities (Thompson & Andrews 2000: 175-178). At the beginning, he worked with singers who could not produce certain sounds and with

workers suffering from hearing loss (Thompson & Andrews 2000: 176). For this purpose he invented an Electric Ear, a special electronic equipment, to assist the natural ear to regain its full potential (Thompson & Andrews 2000: 176). Later on, his refined methods and findings also helped people suffering from any kind of brain damages or deficits, including dyslexia, stroke, brain injuries, autism, learning and attention deficits or developmental delays (Thompson & Andrews 2000: 184).

More specifically, in his method he created stimulation in the neural nerve system with classic music, for example by Mozart and Vivaldi, and studied the activated pathways and areas in the brain that music and certain sounds evoked (Thompson & Andrews 2000: 184; Bancroft 1985: 13). In this way, he revealed that the processing of music is not bound to one area in the brain, but several regions, both in the left and the right brain hemisphere (Thompson & Andrews 2000: 184). In comparison to Lozanov's teaching method, Tomatis conducted laboratory therapy sessions, where he used his special equipment, the Electronic Ear, to improve patient's listening skills (Bancroft 1985: 13). In addition to this passive listening part, patients also have to repeat the sounds by singing or reading aloud into a microphone in order to analyse their developments (Bancroft 1985: 13). On the basis of these data, the filtered auditory stimuli through the Electronic Ear are adjusted accordingly (Bancroft 1985: 13).

In spite of the utilization of classic music in the Tomatis Method, one cannot conclude that solely listening to Mozart, while performing a cognitive task, would automatically lead to enhanced learning outcomes, as Rauscher, Shaw and Ky (1995) proposed. Quite to the contrary, Thompson and Andrews (2000) intended to show that the Tomatis Method is far more complex, with regard to the slow progress in an individual laboratory program with scientific electronic devices under controlled conditions.

3.3 The Mozart Effect

At the end of the 20th century and at the beginning of the 21st century, a lot of research was conducted on brain activity in connection with listening to Mozart's music and cognitive learning performance. Rauscher, Shaw and Ky (1993) initiated a huge discussion in this field, claiming that spatial temporal reasoning skills improved significantly after 10 minutes of listening to Mozart's sonata for two pianos in D major, K488, compared to a silent condition or listening to other relaxing music. However, this

effect only appears in spatial reasoning tasks and lasts only for a very short period of 10 to 15 minutes after listening. Rauscher, Shaw and Ky (1993) also reasoned that this effect is not due to arousal, since pulse rates before and after the listening to Mozart did not change.

Another study by Jausovec, Jausovec and Gerlic (2006) supporting the Mozart Effect, comes to the conclusion that the Mozart Effect is restricted to this one piece by Mozart, the sonata for two pianos K488, since other classical music such as Brahms's Hungarian dance No. 5, does not yield the same results. They selected this piece by Brahms's, because participants rated this music as most pleasant in a number of other classical music pieces including Mozart's sonata. In their study, not only the behavioural test results are analysed but also EEG data that measured the physiological effects in the brain of the participants. They discovered in both experiments, that the neuronal brain activities are simpler during Mozart's music than in the other conditions with no music or other music. The less complex brain activities in the EEG, Jausovec, Jausovec and Gerlic et al. (2006: 2709) argue, are significant for more intelligent people, who gain high results in IQ tests. If brain activities are more complex, irrelevant parts of the brain are active, which can disturb or inhibit task performance (Jausovec, Jausovec & Gerlic et al. 2006: 2709). The test performance and the EEG data indicate that the Mozart Effect exists for spatio-temporal tasks in their study, but other scientists were unable to replicate these results. Jausovec, Jausovec and Gerlic (2006: 2703) reiterate that "Mozart's music, by activating task-relevant brain areas, enhances the learning of spatio-temporal rotation tasks.", thereby refuting claims by other authors that mood and arousal are responsible for enhanced performance. Hence, the similarity in neuronal brain activity is the crucial element in the Mozart Effect. Rauscher, Shaw and Ky (1995: 46) first accounted for the choice of Mozart, substantiating their argument on these brain activities: "We chose Mozart since he was composing at the age of four. Thus we expect that Mozart was exploiting the inherent repertoire of spatial-temporal firing patterns in the cortex." However, Beauvais (2015: 189) disagrees with that statement by Rauscher, according to missing prove.

Increasing doubt on the Mozart Effect is also expressed by Jenkins (2001: 171), who reviewed several studies on that matter. Even though many studies have been written on the Mozart Effect the overall results are controversial (Jenkins 2001: 171). Not all

studies show the same results, and even if they are positive, they are not very significant. Furthermore, they are not long-lasting and do not effect general intelligence, but are highly dependent on the specific task and the exact music piece by Mozart (Jenkins 2001: 171). The special characteristics of Mozart's sonata K488 are still unknown and are not analysed in Rauscher's or Jausovec's studies.

A different explanation why people gain significantly higher spatio-temporal test results when listening to classical music by Mozart stems from Thompson, Schellenberg and Husain (2001: 250) and Ho, Mason and Spence (2007: 123-124), who attribute differences in mood and arousal to the positive cognitive activities. In order to test their hypothesis that better test results are connected to mood, arousal and also enjoyment of the music, they compared Mozart's music to other music by Albinoni, Mozart Symphony 40, in G minor KV550, Bach and to silence (Thompson, Schellenberg & Husain 2001: 248; Ho, Mason & Spence 2007: 126).

Thompson's study used music by Albinoni, because it is in clear contrast to Mozart's sonata regarding mood. Mozart evokes a positive mood and high arousal in the participants, whereas Albinoni creates a sad mood and a extremely low arousal (Thompson, Schellenberg & Husain 2001: 248) The comparison in Thompson's article reveals that only Mozart's sonata showed increased performance, and Albinoni's music has no effect on participant's cognitive abilities (Thompson, Schellenberg & Husain 2001: 250). Thus, their hypothesis turns out to be verified that the *Mozart Effect* is based on changes in mood and arousal. In addition, the positive effects also seem to depend on personal preference, since it has been shown that the same outcomes have been gained by reading a story by Steven King instead of playing Mozart (Nantais and Schellenberg 1999, cited in Thompson, Schellenberg & Husain 2001: 248), because the participants in this study preferred listening to a story instead of music. This example also indicates that mood and arousal can be influenced and changed through various parameters. "Enjoyable stimuli induce positive affect and heightened levels of arousal, which lead to modest improvements in performance on a variety of tasks." (Thompson, Schellenberg & Husain 2001: 251).

What can be drawn from these conclusions is that any preferred background music, not only Mozart's sonata, is suitable to induce positive mood and arousal effects.

Otherwise, one has to presume that only this specific piece of music or classical music genre is capable to improve students' performance on cognitive tasks like speaking. Thus, according to Thompson, Schellenberg & Husain's (2001) claims, it is more probable that the students in this study experience greater changes in mood and arousal with their preferred music instead of music by Mozart.

As has been shown with Suggestopedia, the Tomatis Method and the Mozart Effect, people and scientists alike are fascinated about the influence music has on human body and mind, especially in the context of education. Though, it is still a challenge for researchers today, to generalize the impacts of music on learning processes (Kämpfe, Sedlmeier & Renkewitz 2010: 437). Nevertheless, those impediments, stemming from missing theoretical substantiation and scientific verification in Suggestopedia and the Mozart Effect, should not impede the inclusion of music in the classroom. Apparently, Stansell (2015: 18) states that “[m]usic lost its place in the language classroom, except for ‘culture days’” as a consequence of the invalid predictions from previous theories.

4. Music in education in the 21st century

At the current time, Suggestopedia is seen as an out-dated theory according to university lecturers in the field of language teaching methodology. It is associated with hypnosis and the teacher “acting like a priest in church”, according to a comment by a university professor. Thus, it seems as if music is not regarded as a major learning and teaching strategy to support second language learning, although substantial literature has been published on the great value of music in the language classroom, which will briefly be outlined in the following (cf. Abbott 2002; Engh 2013; Erten 2015; Fonseca Mora 2000; Iwasaki et al. 2013; Schoepp 2001; Schön et al. 2007).

For instance, the most prominent argument in all publications on music and language learning is that music has an enormous motivating force (cf. Engh 2013: 117; Erten 2015: 590; Iwasaki et al. 2013: 140; Fonseca Mora 2000: 152; Anton 1990: 1166; Abbott 2002: 10). To demonstrate the wide range of practical usage of songs in the EFL classroom, Eken (1996: 46) compiled a list, including aspects of background music:

- To present a topic, a language point, lexis, etc.
- To practice a language point, lexis, etc.

- To focus on common learner errors in a more direct way
- To encourage extensive and intensive listening
- *To stimulate discussion of attitudes and feelings* [my emphasis]
- To encourage creativity and use of imagination
- *To provide a relaxed classroom atmosphere* [my emphasis]
- *To bring variety and fun to learning* [my emphasis]

On the whole, using music in various forms in the EFL classroom has been theoretically corroborated to support the development of all four language skills: reading, writing, listening and speaking (cf. Schoepp 2001). What is worth noting on the topic of music in the EFL classroom is that although a considerable amount of literature exists that encourages teachers to use songs and background music, the practical reality appears to be contrary. This gap has also been brought to attention by Engh (2013: 120), who notices that only few pedagogical materials have been published for practical use in the classroom. In addition, the fundamental work “Teaching and Learning in the Language Classroom” by Tricia Hedge (2000), which serves as one of the primary literature in university courses on language teaching and methodology, does not mention the use of songs or background music for teaching English as a foreign language. Despite the neglect of music in academic education and teaching reality in schools, the school curriculum for lower secondary in Austria AHS (which stands for “Allgemeine höhere Schule”) states that a holistic and creative learning via musical elements should be reinforced.

Der Einsatz von spielerischen und musischen Elementen bzw. ganzheitlich-kreativen Methoden ist auch im Fremdsprachenunterricht notwendig, um möglichst förderliche Lernbedingungen für Schülerinnen und Schüler zu schaffen. Multisensorisches Lernen vermag die Aufnahmebereitschaft, Erinnerungsleistung und Motivation zu aktivieren und bringt daher vielschichtigen lernpsychologischen Gewinn. [The usage of playful and musical elements or holistic-creative methods is necessary in foreign language learning, in order to establish conducive learning conditions for students. Multisensory learning enables the activation of receptiveness, retention and motivation, and thus, yields multifaceted learning-psychological benefits.]

This demand in the curriculum implements many beneficial aspects that have been ascribed to the use of background music, as well as in teaching principles introduced in

Suggestopedia (see section 3.1). In the curriculum for upper secondary AHS, which adheres to students aged fifteen to eighteen years, the above-mentioned section is missing. Instead, only a combination of different teaching strategies and differing receptive senses are mentioned in order to account for various learner types. Considering how the topic music and language learning is addressed in the curriculum, it can be assumed that background music is regarded as more apt for younger learners than for teenagers. This is in line with the opinion of a university professor, who deems it useless to use songs or background music with older learners in upper secondary, because there are more important issues to be dealt with, which leaves no time for any kind of music in the classroom. Despite this downgrading of music in general for educational purposes, the importance of listening to background music, especially for adolescents, is addressed in the following.

Today music pervades everyday life more than ever, since new technology renders it easier to play music in various situations and venues as in retail settings and shops, in restaurants and coffee shops, in hotels, at the work place, in the gym or in private situations. In contrast to audio equipment in former times, which rendered listening to music a privilege and an costly process (gramophones and disks in the 19th century; first Walkman and MP3 player in the 20th; and iPods and smartphones in the 21st century), nowadays it has become self-evident to listen to music in everyday life due to modern technology. People nowadays listen to music in almost all places and occasions, like in public transport or while doing sports. This is also reflected in the vast number of online playlists on platforms like ‘Spotify’ where users create playlists for all kinds of leisure activities and moods such as sports, party, reading, relaxing, family, weekend, dinner, sleeping, romance or also studying and concentration. Hence, music seems to play an important role in our society, even more so for adolescents.

A survey conducted by the ORF (Österreichischer Rundfunk), a public service broadcasting in Austria, investigated youth’s significance and habits of media use (cf. ORF 2005). The results of the survey reveal that music is in the top 10-ranking in the most important aspects of life, after friends, freetime, health, family and relationships (cf. ORF 2005: 4). More specifically, 52 per cent rate music as extremely important in their life and 34 per cent rating it as important, leaving only a minority of 15 per cent for whom music is not as relevant in their life (ORF 2005: 4). These findings are in line with the outcomes of the initial student questionnaire in this study, because almost all of

the students indicated that music is either important or very important in their life on a five point Likert Scale. Only one student in the 6th grade rated music as not so important and one student in the 5th grade answered with neither nor.

Similar results are also observed in a study conducted in England by North, Hargreaves and O'Neill, (2000: 260), who state that music plays a major role in the life of adolescents aged 13 to 14. From about 2500 participants in this study, 1505 (61%) reported that they listen to music once or twice a day, 39,6% of them as often as they can. More than half of them also reported that they recently played a musical instrument, which they played in addition to the time they listen to music. Analogous to this finding is the rating of teenager's favourite free time activities in Austria, where music is ranked on top with overall 53 per cent indicating that they listen to music very often (cf. ORF 2005: 6). Another striking discovery in the study by North, Hargreaves and O'Neill (2000: 261) shows that teenagers prefer listening to music over all other leisure indoor activities except watching TV. Conversely, teenagers in Austria rank listening to music even before watching TV and playing video games, which takes only the fourth rank (ORF 2005: 6).

That teenagers spend the majority of their free time on music is also acknowledged by Fonseca Mora (2000: 151) who claims that "students love doing activities related to music in their free time. When asked about their hobbies, listening to music, singing, dancing, or playing an instrument are very common answers." The number and variety of situations in which teenagers listen to music obtained in this study is also a strong indication that the students spend much time on music. For instance, in the 5th grade almost all students marked all listed situations in the questionnaire (during sports, while learning and doing homework, in public transport, at parties, at home, with friends) and even added other private situations like in the bathroom or while tidying and cleaning their room. In the 6th grade the students also ticked almost all possibilities except for the learning and doing homework, which only four out of twelve have marked.

The study by North, Hargreaves and O'Neill (2000: 263; 269) further investigated the reasons why adolescents listen to music, which explains why music is specifically important for young adults as in this study. For instance, the establishing of an image by pleasing other people and being trendy are extremely important. Another reason

concerns mood management in puberty that allows adolescents to express their emotions, to deal with difficult times or to reduce stress and tension besides the basic enjoyment of music (North, Hargreaves & O'Neill 2000: 263). A final argument why music apparently plays a vital role in adolescent's life demonstrates the concept of the reminiscent bump, which refers to the fact that most people can evoke particular memories from their youth by listening to certain music (cf. Juslin & Västfjäll 2008: 567). The reason why most people easily remember situations from their early adulthood or teenage time is that during this episode in life, one establishes his or her character. Henceforth, this study intends to take advantage of adolescent's pleasure in listening to music. In the following, the state-of-the-art literature on background music and its impact on cognitive processes and human behaviour will be outlined.

5. Background music affecting emotion, arousal and cognition

Many people listen to music during other daily activities, as has been noted above, because of its mood enhancing effect. For example, films would be boring and plain without the special sound effects or doing sports would be much less motivating without music. This emotional response of the human body has fascinated people since the early times of ancient Greece. Human reaction to music is connected to brain activities, which are measured and studied by scientists in order to explain the positive influence on cognitive processes and behaviour. The positive emotions induced by background music is nowadays utilized in various domains like in the film industry, journalism, marketing, medicine and also in education, where it fulfils differing purposes, but still, the fundamental theory underlying the behavioural effects is yet to be detected.

5.1 Emotion, arousal and mood - definitions

This section attempts to summarize the theory on arousal and emotion induced by background music and how these two concepts are related to learning and cognitive performance. First, the terms *emotion*, *arousal* and *mood* need to be clarified in order to avoid any confusions in the following discussion, because these terms are often used ambiguously or some authors do not provide explicit definitions of them. To start with, I want to consider the term *emotion*, since “[m]usic is a major means of triggering emotions [...]” (Guétin et al. 2009: 37). The best definitions of the term is given by Juslin & Västfjäll (2008: 561) who describe emotion as:

relatively intense affective responses that usually involve a number of sub-components – subjective feeling, physiological arousal, expression, action tendency, and regulation – which are more or less synchronized. Emotions focus on specific objects, and last minutes to a few hours.

They further explain that a precise definition on *emotion* is not agreed on in the literature, but the measurable subcomponents of emotional responses are largely similar (Juslin & Västfjäll 2008: 561). The various parts of an emotional reaction hence, consist of the cognitive appraisal, (e.g. you appraise the situation as appealing), the subjective feeling (e.g. you feel happy), the physiological arousal (e.g. your heart beat is normal), the expression (e.g. you smile), the action tendency (e.g. you participate in social activities) and the regulation (e.g. you prevent yourself from laughing out loud or jumping of joy in public) (Juslin & Västfjäll 2008: 562). During my classroom observation, for instance, I could observe some emotional expressions connected to the background music, which relates to the action tendency notion, as some boys started moving their head to the beat of the music, and also commenced humming to the melody, if their focus shifted from the exercise to the music. According to the facial expressions of the students, no clear link can be established between them and the music. Nevertheless, they smiled and laughed regularly during the speaking tasks, with neutral expressions during most of the time. Only on a few occasions, I observed them yawning.

In contrast to the term *emotion*, *arousal* in their conception refers to the physiological activation of the autonomic nervous system, which can be measured in terms of heart rate, respiration, skin temperature (cf. Thompson, Schellenberg & Husain 2001: 251) or through electrodermal activity (cf. Picard, Fedor & Ayzenberg 2016: 62; Juslin & Västfjäll 2008: 562). Thus, in Juslin and Västfjäll's concept, physiological arousal comprises one part of the term emotion, which is more complex and measurable on various levels. They also distinguish the term *mood* from *emotion*, which in their definition, is a more subtle emotional feeling that lasts longer than emotions and is not directed at a specific object or event as compared to an emotion (Juslin and Västfjäll 2008: 561). Other authors use rather vague definitions of *arousal*, as for example Thompson, Schellenberg and Husain (2011: 701) who argue that “[...] arousal refers to the energetic and physiological elements of emotion [...]” and again another author simply asserts that *arousal* is an internal state of the mind, which is appropriate for a task (cf. Eysenck 1984: 327). More recently, a comment by Richter (2016: 82) on the

“Multiple Arousal Theory” by Picard, Fedor and Ayzenberg (2016) criticises the following:

Multiple arousal theory lacks a specific conception or definition of its central concept, arousal. It remains unclear if multiple arousal theory defines arousal as subjective feeling state, general physiological activation, sympathetic activity, electrodermal activity, brain activity, or any combination of these elements.

Thus, for reasons of simplification, in this paper the term *arousal* refers to a physiological activation of the nervous system (cf. Juslin & Västfjäll 2008: 561), which constitutes a one-dimensional continuum ranging from high arousal (e.g. panic, great excitement, “fist-pumping joy”) to low arousal (e.g. deep sleep, relaxation) (cf. Eysenck 1985: 328; Picard, Fedor & Ayzenberg 2016: 62). Furthermore, an important distinction between the terms *emotion* and *arousal* has been emphasised in the literature. *Emotion*, or mood (used ambiguously in Greene, Bahri & Soto 2010: 2) can either be rated as positive or negative, whereas arousal can be high or low, meaning energizing or relaxing (Greene, Bahri & Soto 2010: 2). Hence, Picard, Fedor and Ayzenberg (2016: 62) elaborates that a strong depression is characterised by an extremely low arousal, and concurrently, by an intense negative emotion to highlight the difference between the two concepts.

5.2 Background music affecting emotions

In order to choose the appropriate background music for the purpose of this study, this section looks at the particular mechanisms that are responsible for the induced emotions of background music. If the underlying mechanisms are better understood, it might be easier to select specific songs and to predict and hypothesise about students’ reactions to the music. Juslin and Västfjäll (2008: 574) criticise that most research conducted in the field, concerning the influence of background music, does not describe how and why emotional changes occur, but instead they rely on the innate characteristic of music to evoke emotions. Hence, they provide a framework of six mechanisms to describe the phenomenon of emotional reactions to music.

The six mechanisms they describe are the following: “(1) brain stem reflexes, (2) evaluative conditioning, (3) emotional contagion, (4) visual imagery, (5) episodic memory, and (6) musical expectancy” (Juslin & Västfjäll 2008: 563). However, Juslin and Västfjäll highlight that these six mechanisms are not unique to music alone and they

cannot account for all emotions aroused via musical stimuli (Juslin & Västfjäll 2008: 559; 563). Moreover, they are not mutually exclusive, but should be seen as complementary (Juslin & Västfjäll 2008: 563). The first mechanism, called brain *stem reflexes*, is an ancient structure of the brain that continuously scans the acoustical environment and activates the central nervous system, if certain stimuli are perceived as unusual (Juslin & Västfjäll 2008: 564). Such inconsistencies in the acoustical environment could imply danger, which causes the reticular system to react automatically by inducing arousal (Juslin & Västfjäll 2008: 564). Sounds, which cause this system to activate can be characterised as loud, fast, noisy or extremely high or low in frequency (Juslin & Västfjäll 2008: 564). These features of sensory stimuli are also typical of animal alarm calls, which have an evolutionary significant purpose (Juslin & Västfjäll 2008: 564). In fact, the vital point about this mechanism is the following: “Brain stem reflexes can explain the stimulating and relaxing effects of music, and how mere sounds may induce pleasantness and unpleasantness” (Juslin and Västfjäll 2008: 564).

The concepts of *evaluative conditioning* refers to the fact that certain music is always connected to a specific state of emotion, thereby the listener is continuously reminded of the feeling when this music is played (Juslin and Västfjäll 2008: 564-565). The problem with this mechanism is that it is idiosyncratic and personal and therefore, it is difficult to test scientifically (Juslin and Västfjäll 2008: 565). Similarly, episodic memory also has to do with the connection of music and certain memories (Juslin and Västfjäll 2008: 567). However, the difference of episodic memory is that it is consciously associated with a specific event in the past (Juslin and Västfjäll 2008: 567). This mechanism is particularly used with patients suffering from Alzheimer, because it helps patients to remember autobiographical events (Guétin et al. 2009: 37). In this study, it is not possible to obtain if a student experiences either evaluative conditioning or episodic memory, because they are either not aware of the process or they would not share such personal information, but still the mechanisms could have influenced them.

A further noteworthy framework is *emotional contagion*, which means that the listener recognizes emotional expressions in the music and mirrors this expression either internally in the brain or externally through the activation of muscles (Juslin and Västfjäll 2008: 565). In other words, a person perceives a certain emotion, for example

in a facial expression or in the sound of music, and imitates it (Juslin and Västfjäll 2008: 565). This mechanism is responsible for feelings of empathy, and thus, is crucial for establishing social relationships (Juslin and Västfjäll 2008: 565). Juslin and Västfjäll (2008:565) ascribe this special property to music, because individuals “become aroused by the voice-like aspects of music via a process in which a neural mechanism responds quickly and automatically to certain stimulus features, which leads us to mimic the perceived emotion internally.” Another framework that should explain how music evokes emotions in this study is *musical expectancy*. This means, “a specific feature of the music violates, delays, or confirms the listener’s expectations about the continuation of the music” (Juslin and Västfjäll 2008: 568).

Conditions that apply to all the aforementioned mechanisms are that they can be activated simultaneously, creating mixed emotions in individuals, which always depends on the listener, the music and the context (Juslin and Västfjäll 2008: 572). Additionally, the six mechanisms are located in different brain regions, which show different evolutionary origins (Juslin and Västfjäll 2008: 569). It is also said that individuals’ emotional perception of music follows a developmental timeline, that starts with the more rudimentary brain stem reflexes, and progresses later in life, to emotional contagion and finally to musical expectancy (Juslin and Västfjäll 2008: 573). Therefore, it can be implied that adolescents may experience music in a different, more emotional, way than adults. Finally, Juslin and Västfjäll (2008: 574) claim that many studies using music, obtain positive results according to physical health and mental well-being, as a consequence of the emotions music convey. For instance, studies on human stress and Alzheimer patients as well as research in the field of marketing and retail discovered beneficial effects of music on human well-being and behaviour (cf. Garlin & Owen 2006; Cherng & Chien-Hung 2012; Thoma et al. 2013) Nevertheless, scientific studies need to base their findings on theories in order to be able to compare studies. Juslin and Västfjäll (2008: 573-574) argue that the musical stimuli have to be manipulated more systematically according to the intended emotion it should induce to avoid distorted results in the research. Regarding the current study, the music has been selected in consideration of various aspects, such as tempo, rhythm, complexity and genre, which will be further elaborated in section 6.3.

5.3 Arousal-Mood hypothesis

One of the most frequently quoted theoretical basis in connection to background music and cognition is the Arousal-mood hypothesis. Basically, this hypothesis suggests that music induces physiological arousal, which has a mood-enhancing effect that leads to better performance (Kang & Williamson 2014: 729; 737; Juslin & Västfjäll 2008: 564; Thompson, Schellenberg & Husain 2011: 701; Greene, Bahri & Soto 2010: 4). For example, Kang and Williamson (2014: 729) state that “[...] stimulating music can have a positive impact on task performance (verbal and non-verbal), an effect that is most often ascribed to the music providing a boost in psycho-physiological arousal and mood”. Moreover, Thompson, Schellenberg and Husain (2011: 701) utter the same claim by saying that “[t]he potential *benefit* of background music listening is that it can enhance arousal levels and mood.” In detail, Berlyne (1971, cited in Juslin & Västfjäll 2008: 564) claims in his theory that individuals seek for an optimal level of arousal, which is achieved by a moderately arousing music (North & Hargreaves 2008: 78). The same claim has been made by several researchers in the field (Greene, Bahri & Soto 2010: 4; De Groot & Smedinga 2014: 683), like Eysenck (1984: 329) who says that an “[...] intermediate level of arousal is optimal for performance”.

In Berlyne’s psychobiological description of the hypothesis, he explains that “the auditory nerve passes through the ascending reticular activating system (ARAS), which is responsible for the degree of physiological arousal we experience” (North & Hargreaves 2008: 78), before it reaches the cortex. He identifies two different brain areas in the ARAS, the *pleasure* and *displeasure centres* (North & Hargreaves 2008: 78). Depending on the degree of arousal, either the *pleasure* or *displeasure centre* is activated, where moderately arousing music causes a maximum activation of the *pleasure centre*. Any additional arousal level then starts to activate the *displeasure centre* (North & Hargreaves 2008: 78). Thus, the optimum level takes the form of an inverted U-shape, which is also referred to as the *Wundt curve* (see Figure 1) (North & Hargreaves 2008: 78; Furnham & Allass 1999: 30). So, the preference of any musical stimuli is dependent on the arousal level it evokes (North & Hargreaves 2008: 77). Figure 1 below clearly illustrates the *Arousal-Mood hypothesis* in the form of *Wundt curve*.

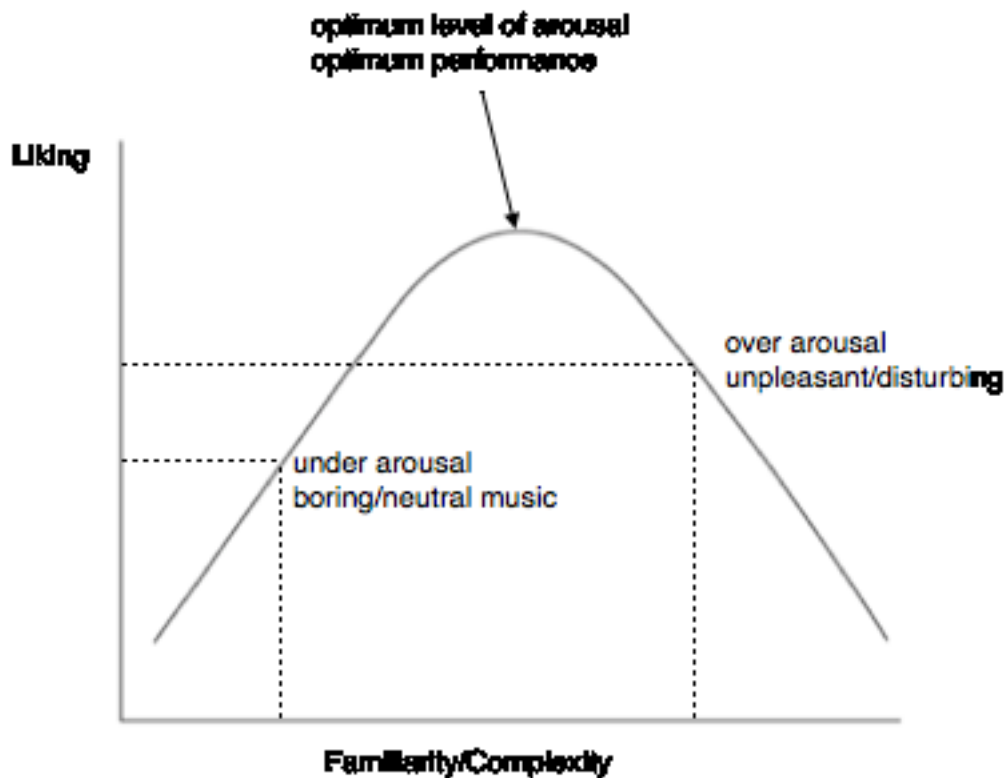


Figure 1 Optimum level of arousal

As Figure 1 illustrates, an optimum level of arousal, where the best performance on a certain task can be expected, equals the highest level of liking of a music stimuli. The dependent variable on the x-axis is the familiarity and complexity of the respective music, which will be explained in greater detail in section 6.3. Any arousal level before or after the optimum level leads to lower performance according to under or over arousal conditions. So, the music is either perceived as boring and neutral or it is perceived as extremely unpleasant and disturbing.

In the context of arousal and performance, the *Yerkes-Dodson law* is often mentioned in the literature, which has been established by Yerkes and Dodson in 1908 (Eysenck 1984: 331). This law specifies that an optimal level of arousal is related to the best performance, depending on task difficulty (Eysenck 1984: 332). This means that insufficient arousal levels or an over arousal leads to a deterioration of performance on any task (Eysenck 1984: 331-332; Hallam, Price & Katsarou 2010: 113). However, one has to bear in mind that not only the background music is a source of arousal, but also the task itself has the potential to arouse an individual (Eysenck 1984: 332). Furthermore, an optimal level of arousal does not equal greater performance in the

sense of greater accuracy, but in the sense of greater focus and attention (Eysenck 1984: 332). Hence, a study on primary school pupils, who had to solve mathematical tasks, did not yield more correct answers, but the number of items solved increased (cf. Hallam, Price & Katsarou 2010: 115). Hallam, Price and Katsarou (2010: 116) conclude that the background music during the solving of mathematical problems lead to higher speed, but not more accuracy, which can be explained by the *Yerkes-Dodson law*.

Another hypothesis called the Easterbrook's hypothesis tries to explain the relationship between arousal level and performance with regard to attention and cue utilisation (Eysenck 1984: 333). The basic assumption of this hypothesis is that an optimal level of arousal leads to improved performance on tasks, because irrelevant environmental cues are ignored and only the most relevant cues for completing a certain task are processed (Eysenck 1984: 333). If an over arousal occurs, performance deteriorates, because also relevant cues are left out (Eysenck 1984: 333). Thus, arousal is associated with the degree of concentration on a specific task, meaning that "arousal increases attentional selectivity" (Eysenck 1984: 335-336).

However, Eysenck (1984: 337) addresses an intriguing thought that an arousal induced by music or other situational context variables cannot directly lead to certain behaviour. This would imply that individuals are completely prone to any source of arousal in their environment (Eysenck 1984: 337). Therefore, Eysenck (1984: 336) postulates the existence of two different mechanisms, a *Lower* and an *Upper* mechanism. The former is said to be passively effected by the situational context, whereas the latter is actively monitoring and altering the effects on the *Lower* mechanism. In other words, people consciously alter arousal levels induced by environmental or internal circumstances, like noise or sleeplessness, according to their needs (Eysenck 1984: 337). This compensatory system could, for example, put additional effort in a task, if the *Lower* mechanism is prevented by unpleasant music or sleeplessness (Eysenck 1984: 338).

So far, it has been tried to elaborate that music has the potential to evoke emotions through physiological arousal, which denotes an optimum at an intermediate arousal level according to personal liking, where the best task performance is expected to occur. To illustrate this argument North and Hargreaves (2008: 79) claim that "[...] it would be hard to write an essay while feeling sleepy or anxious. It therefore makes good sense

that we should have evolved to prefer moderately arousing music.” However, personally preferred music or optimum arousal level is, on the one hand, under the control of the individual through a compensatory system, and on the other hand, it is dependent on the situational context, the personality (introversion or extroversion) the kind of music and the task complexity and requirements (De Groot & Smedinga 2014: 682- 683; Cassidy & Macdonald 2007:518; Kämpfe, Sedlmeier & Renkewitz 2010: 441; Furnham & Alllass 1999: 28-29). Thus, researchers assert that the prediction of arousal levels via background music and its impact on cognitive task performance is a rather complex undertaking (De Groot & Smedinga 2014: 682- 683; Cassidy & Macdonald 2007: 518; Kämpfe, Sedlmeier & Renkewitz 2010: 437).

5.4 Cognitive-Capacity hypothesis

Background music does not only affect emotional reactions expressed in physiological arousal, but research also suggests that background music has an effect on working memory capacity and cognitive processing (cf. Salamé & Baddeley 1989: 108; De Groot & Smedinga 2014: 683). It is further claimed that background music, which demands too much attention, deteriorates cognitive task performance (cf. De Groot & Smedinga 2014: 683; Thompson, Schellenberg & Husain 2011: 701; Ransdell & Gilroy 2001: 142). The term *cognitive* in this respect is defined by Robinson (2007: 10) as “the extent to which task characteristics can affect the allocation of an individual's attention, memory, reasoning and other processing resources”.

However, as everyday experience shows, not all tasks are disturbed in a music-playing environment. For instance, many people listen to background music while they talk to a friend in a bar or during sports. This is due to the structure of the working memory, which is not comprised of one single system, but it consists of several subsystems, controlled by the central executive that coordinates conscious processing (cf. Baddeley 2000: 421; Wickens 1992, cited in Sasayama 2011). In Wickens’ multi-resource model he specifies that interference of dual tasks (speaking task and listening to background music) only appears if the tasks make demands of the same resource pool of attention (Wickens 1992; cited in Sasayama 2011: 109). These attention pools differ in terms of processing mechanism (i.e. encoding or responding), the modality (i.e. visual or auditory) and the form of response (i.e. manually or verbally) (Wickens 1992, cited in Sasayama 2011: 109). Therefore, it is possible, for example, to drive a car (visual and

manual response) and listen to the radio (auditory). Since the dual task of communicating in L2 and listening to background music partly draws on the same pool of auditory attention on the part of the listener, background music has to be chosen carefully.

Nevertheless, interference not only depends on the similarity of attention resource, but also on the cognitive effort of dual tasks and the conscious choice of allocation of attention by the performer (Wickens 1992, cited in Robinson & Gilabert 2007: 169). Wickens claims that the performer has the ability to switch and allocate attention according to strategic choices, which can also be trained in language learning (cited in Robinson & Gilabert 2007: 169). In particular, auditory attention can be directed at a specific voice of a speaker, even in a noisy environment (Wickens & Holland 2000: 104). This ability is also called the *cocktail party effect* (Wickens & Holland 2000: 104). This means that people are able to filter out a preferred voice according to various dimensions of selection - pitch, intensity or loudness. Thus, if background music is mutually different and lower in volume than the voice of students' interlocutor(s), they should be able to tune in on the voice of their colleagues and ignore the music (Wickens & Holland 2000: 104).

According to the abovementioned theoretical findings, it is predicted that background music in this study could interfere and hinder concentration on a speaking task, if the exercises demand high levels of cognitive effort. In order to evaluate cognitive effort on speaking tasks, several frameworks have been developed in the literature, such as the Triadic Componential Framework by Robinson (2007: 9). Owing to the limitation of this thesis, a thorough analysis of cognitive requirements on speaking tasks cannot be undertaken. Nevertheless, it is assumed that the teachers in this study chose the speaking tasks according to learners' abilities. Thus, the speaking exercises are expected to pose an accelerated cognitive effort on most students.

6. Effects of background music

The enormous increase in research on the effects of background music on emotion, behaviour and cognition obviously points towards a significant impact of background music, which is not yet fully understood. A closer look at the detailed results indicate that the effects cannot be generalizable due to the heterogeneity of the studies, which do

not adhere to standardized techniques or underlying theoretical principles (cf. Kämpfe, Sedlmeier & Renkewitz 2010: 435). The reason for this glaring discrepancy in results tends to stem from the highly idiosyncratic context variables, such as the situational context, type of music, task complexity and personality characteristics of the participants (cf. Kämpfe, Sedlmeier & Renkewitz 2010; De Groot & Smedinga 2014: 682- 683). Despite these issues, Kämpfe, Sedlmeier and Renkewitz (2010) conducted a meta-analyses to shed more light on the overall effects of background music on emotion, behaviour and cognition. For this purpose, they categorised 97 studies into effects on emotion, mundane behaviour and cognition, which has been further subdivided into judgement and achievement to gain more specified results (Kämpfe, Sedlmeier & Renkewitz 2010: 427). It is noteworthy, however, that this meta-analyses excluded studies including children and music therapy. Since in this study only fifteen to sixteen year old teenagers are considered, the conclusions by Kämpfe, Sedlmeier and Renkewitz (2010) have to be taken with care.

Notably, Kämpfe, Sedlmeier and Renkewitz (2010: 440) come to no uniform effect of background music, because some studies reveal beneficial effects, some negative effects and others do not find any effects of background music at all. Nevertheless, Kämpfe, Sedlmeier and Renkewitz (2010: 440) emphasise that the overall zero effect of background music does not mean that background music has *no* impact on human beings, but rather the influences are extremely diverse. What can be drawn from their analysis is that the effects of background music are an interesting and highly complex phenomenon, which is definitely worth to investigate in more detail according to the dependent variables. So, for example, De Groot and Smedinga (2014: 683) state how they accounted for the numerous conditional variables in order to gain further insights into this subject. Likewise, this study bases decisions on music choice and the hypothesis on the outcomes of the empirical study on the most prominent findings in recent literature attributed to background music, which will be outlined in the next sections.

6.1 Overall negative effects on cognitive tasks

Not that straightforward is the picture on findings concerning background music and cognitive tasks. This is evident in a statement by Kang and Williamson (2014: 737):

The presence of music in any cognitive task represents a double-edged sword: music can significantly interfere with cognitive performance

especially when that music is high in complexity and loudness; however, the presence of low complex music (non-verbal; stable tonality; minimal changes in tempo and amplitude) has been associated with improvements in task performance.

So, depending on the complexity or difficulty of a current task, the background music has to be selected accordingly. It therefore makes sense that extremely loud and fast, vocal pop music, which is commonly played in a club, is not appropriate for writing an essay. The theoretical concept, which explains this circumstance, is the *cognitive-capacity hypothesis* mentioned earlier. Henceforth, one must be aware of the delicate balance between distraction and stimulation of background music, as it “[...] could withdraw attention from the respective primary tasks, thereby worsening performance, especially in tasks that require conscious processing” (Kämpfe, Sedlmeier & Renkewitz 2010: 441). With this in mind, there exists convincing evidence that music has a largely positive effect on automatic and routine tasks due to its mood enhancing effect, whereas complex mental tasks seem to be impaired (Cassidy & Macdonald 2007: 519; Kämpfe, Sedlmeier & Renkewitz 2010: 441; Kang & Williamson 2014: 730).

Since the majority of studies in the meta-analysis by Kämpfe, Sedlmeier and Renkewitz (2010: 427) deals with the effect of background music on cognitive processing, task complexity and music type are essential according working memory capacity. So, for instance, studies conducted by Caldwell and Riby (2007), Cassidy and MacDonald (2007), Furnham and Allass (1999), Ransdell and Gilroy (2001) and Wolfe (1983) all investigate impacts on demanding working memory activities. The tasks in these studies comprise an oddball task, various recall tasks, a stroop task, reading comprehension tasks, a memory test and mathematical problems. According to Kämpfe, Sedlmeier and Renkewitz (2010: 437), the overall effect of cognitive tasks yields no effect at all, due to incomparability of the studies. Hence, they looked more precisely into subgroups and discovered that specifically memory tasks show a small but persistent negative effect and reading tasks are clearly deteriorated in background music conditions. However, the inconsistency and rather small effects in the meta-analysis by Kämpfe, Sedlmeier and Renkewitz (2010) is evident in the study by Hallam, Price and Katsarou (2002), because they gained positive results in cognitive tasks, where children had to fulfil mathematical problems and a linguistic memory task. All children attained better results in a calm and relaxing music condition compared to silence and music perceived as aggressive (Hallam, Price & Katsarou 2002: 115-119). Nevertheless, this study seems to be an

exception as Ransdell and Gilroy (2001) and Thompson, Schellenberg and Husain (2011) yield significantly disrupting impacts of background music on reading and writing exercises. Ransdell and Gilroy (2001: 142) clearly associate restricted working memory capacity with listening to background music, because of decreased words per unit and irregular pauses in the process of writing compared to silence. Similarly, Thompson, Schellenberg & Letnic (2011: 705) observed a disruption in reading, when the volume and rhythm of the music increased noticeably. From this research it can be deduced that tasks like reading and writing demand higher working memory capacity, which are easily disrupted by music.

6.2 Effect of background music on extroverts and introverts

Another aspect that certainly has a strong influence on participant's performance is the personal character trait of either introversion or extroversion. It is commonly agreed that people have different preferences in their studying habits according to sound stimulation in their environment. While some people are only able to learn in a silent environment of a library, others prefer some stimulating background noise, like in a coffee shop or with a radio or TV playing in the background. According to literature, this difference is attributed to extroversion or introversion, which requires a different level of optimal arousal for performance and concentration (Furnham & Allass 1999: 29). This implies that introvert people feel an aversion towards auditory conditions that are convenient for extrovert people (Furnham & Allass 1999: 29).

A crucial study that assesses the difference between introverts and extroverts on cognitive performance, has been published by Furnham and Allass (1999). In their study, the music has been rated by professionals on seven characteristics – tempo, repetition, rhythmic complexity, melodic complexity, vocal meaningfulness, instrumental layering and overall complexity – to determine simple and complex music tracks (Furnham & Allass 1999: 32). Then, the extrovert and introvert participants had to complete a reading and a memory task in the simple and complex background music environment. As they hypothesised, introverts scored significantly higher in silence, whereas extroverts outperformed introverts in the complex music ambience (Furnham & Allass 1999: 34). Furthermore, the performance of introverts is impaired in all music conditions, while extroverts attain highest scores in the complex music condition (Furnham & Allass 1999: 35).

Similar results are obtained in the study by Cassidy and MacDonald (2007: 530), who state that task performance deteriorates in all music conditions, whereby introverts' attainment has been significantly poorer than extroverts' in high arousing, aggressive music condition. The tasks in this study again comprised cognitive recall exercises and a stroop task (Cassidy & MacDonald 2007: 524-526). However, the sound distraction has been chosen on the basis of personal ratings by random people, as compared to the rather professional decisions on the music by Furnham and Allass (1999: 32; Cassidy & MacDonald 2007: 524). Finally, they came up with four different music conditions, including a low arousing music perceived as relaxing, a high arousing music evoking aggressive emotions, as well as noise from traffic, working and conversations and silence (Cassidy & MacDonald 2007: 524).

Both studies conclude that their results support the *arousal-mood hypothesis* as well as the *cognitive-capacity hypothesis* on the grounds that introverts perform distinctly worse in high arousing music (or noise) conditions than extroverts, due to faster occurrence of over-arousal in introverts. In addition, the performance of all participants got worse with increasingly distracting sound environments, which pose higher demands on working memory capacity (Cassidy & MacDonald 2007: 530-531; Furnham & Allass 1999: 35).

For the current study, these findings implicate that differences in students' personality are highly probable to elicit varying reactions to music. Since a school classroom almost inevitably consists of a heterogeneous group of students, it is questionable how background music can be chosen to suit all character types. Thus, Furnham and Allass (1999: 36) argue that simple and rather relaxing music might constitute a balance between rather introvert or extrovert people, but actually, this kind of music would not create an optimal level of arousal for both character types. Furthermore, the effects of simple and relaxing background music evoke more ambiguous effects than arousing music, which renders the outcomes more unpredictable (Furnham & Allass 1999: 36). Consequently, it makes more sense to adjust the sound environment to perfect conditions for extrovert people, since introverts are anyway more liable to show detrimental effects in various sound environments, not only connected to music.

Another aspect which has to be taken into account in relation to this study, is that the sound environment differs considerably in contrast to most studies in the literature on background music, as the concurrent communication of all students in the classroom setting in itself poses a possible sound distraction. Wolfe (1983: 199) already calls attention to the more “open” environment of a classroom setting, where numerous distracting sounds of different sources may disrupt the process of learning, despite the background music. So, for instance, the chatter and laughter of other students during pair work speaking exercises could already cause an over-arousal condition for introvert students without any background music. In that respect, a student speaking exercise often entails uncontrollable noisy student talk, which is unrelated to the task, thereby distracting diligent students. By contrast, the studies by Furnham and Allass (1999), Cassidy and MacDonald (2007), Ransdell and Gilroy (2001), Wolfe (1983), Kang and Williamson (2014), De Groot and Smedinga (2014) Thompson, Schellenberg and Letnic (2011) and Hallam, Price and Katsarou (2002) all consist of cognitive tasks completed individually and in silence. Solely the study by Cunningham (2014) includes similar task requirements as in this study, where participants were required to talk in group discussions. Still, group discussions might not produce as intense acoustic noise as face-to-face communications. The loudness of student talk during speaking exercises has been particularly evident in the 5th grade, where the background music was sometimes unperceivable due to student’s communication. Hence, the task specifications in this study differ in some respect to previous studies on background music, but nevertheless, the findings from the abovementioned articles provide useful insights into general principles how background music impacts performance of individuals.

6.3 Effects of different music characteristics

In the previous sections it has been reported that task type, personality characteristics as well as the setting strongly determine how people react to background music. But conversely, the special type and characteristics of certain music also have a different effect on people’s behaviour. So, before the background music for a certain situation can be chosen, the following context parameters have to be considered:

- Setting/context
- Task specifications
- Participants (age, culture, genre preferences)

- (Personality characteristics – introversion or extroversion)

Now the question is, which background music is appropriate in the setting of a school classroom with a speaking task for students at the age of fifteen to sixteen years. Figure 2 below should again illustrate the two possible effects of background music (stimulation or distraction), which have to be balanced on the basis of the setting, personality and task type in order to induce an optimal level of arousal, leading to an optimum performance.

Stimulation, on the one side, is induced by emotions through the mechanisms of emotional contagion, brain stem reflexes and musical expectancy (see section 5.2). Distraction, on the other side, arises from the limited working memory capacity, which is always effected by listening to music (see section 5.4). Regarding these theoretical concepts on how background music impacts on behaviour, the music itself can be scrutinised more thoroughly.

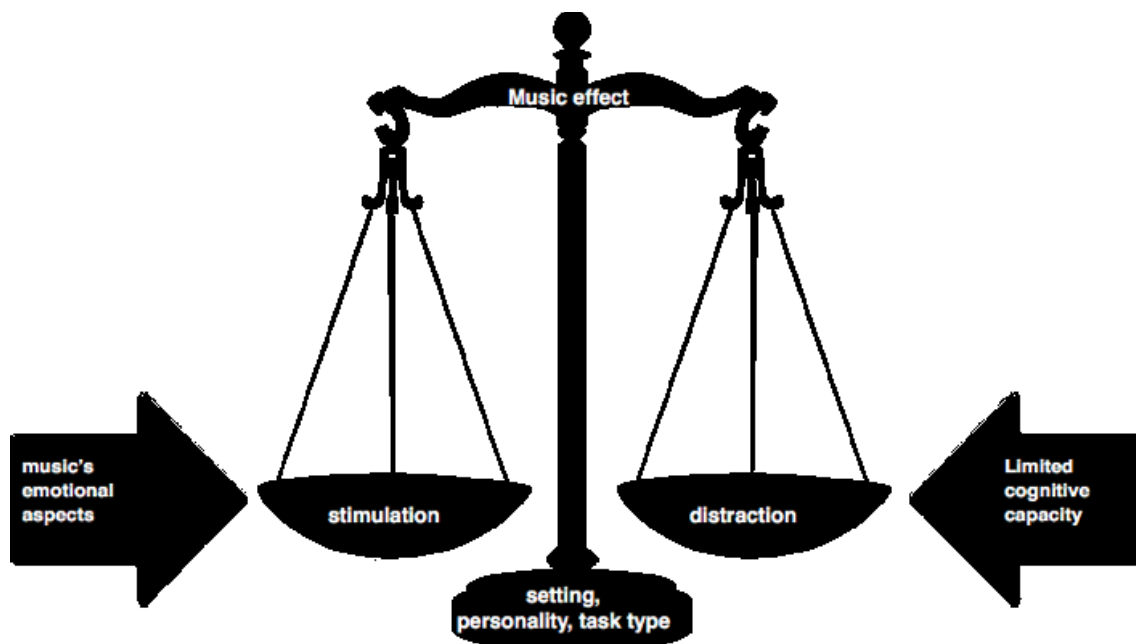


Figure 2: Music's effect on cognitive performance

Several researchers classify music according to prominent features that tend to elicit different reactions in listeners. So, for instance, Bancroft (1985: 3) distinguishes between rhythm, harmony, melody and instrumentation. From these four characteristics she deems rhythm as most influential, affecting physical body reactions like respiration and heart rate (Bancroft 1985: 3). Other studies also emphasise that rhythm and tempo

have the strongest effect on human behaviour by inducing higher arousal (cf. Kämpfe, Sedlmeier & Renkewitz 2011: 440; Garlin and Owen 2006: 755, 761; Bancroft 1985: 3). The other features, harmony and melody, are said to have an impact on mood and personality (Bancroft 1985: 3). A different classification of music provides De Groot and Smedinga (2014: 682-683) who identify six features of background music, which are likely to elicit different reactions. These features include tempo, arousal potential, complexity, loudness, instrumentality and personal preference of the listener, which can be interpreted as music genre (De Groot & Smedinga 2014: 286-683; Furnham & Allass 1999: 32). Other studies, however, classify and select the background music solely on the basis of peoples' perception rather than on objective and measurable variables. For example, Hallam, Price and Katsarou (2002: 114, 116) chose Walt Disney songs rated by children on the following dimensions: happy or sad, calming or exciting and like or dislike. Cassidy and MacDonald (2007: 522) also chose music rated as popular by participants. In addition, the popular songs were rated as positive or negative in valence and high or low in arousal (Cassidy & MacDonald 2007: 522).

Since music perception is often an idiosyncratic process, it definitely makes sense to use background music, which has been rated by participants themselves according to the desired effects. Though, some obvious characteristics of background music seem to affect all individuals alike. Therefore, the following properties are taken into consideration for the present study:

- Tempo and rhythm
- Loudness
- Complexity
- Familiarity
- Instrumental or vocal music
- Genre

Tempo and rhythm seem to have the strongest effect on participants' behaviour according to literature in the field of education and marketing. For instance, Kämpfe, Sedlmeier and Renkewitz (2011: 440) investigated 16 studies in their meta-analysis that deal with the effect of tempo in background music. They conclude that the overall effect of increased tempo in background music leads to faster movements, for example in sports. But also in the field of marketing and retail, faster tempo has strong effects on

costumers. Cherng and Chien-Hung (2012: 301, 304) argue that increased tempo correlates with higher arousal, which is apt for hedonic goods, but not for utilitarian goods, such as computers or washing machines. The reason given is that people either want to enjoy shopping without paying much attention, or they want to read and concentrate on product descriptions to make rational and prudent decisions (Cherng & Chien-Hung 2012: 301). Hence, costumers' positive or negative reactions strongly depend on the tempo of the music, which needs to be appropriate for the specific shopping context.

In the field of education by contrast, faster music has been identified to have a negative influence on reading tasks (Thompson, Schellenberg & Husain 2012: 705). Participants are not able to concentrate on a reading task if the background music is too fast, but slower music can be ignored (Thompson, Schellenberg & Letnic 2011: 705). Similarly, Garlin and Owen (2006: 755, 761) observed that a higher tempo of background music negatively affected waiting customers in shops due to its high arousal.

Henceforth, the tempo of background music constitutes a pivotal and delicate factor in creating an appropriate classroom atmosphere, which is apt for speaking activities. In the article by Cunningham (2014: 182) for example, she explains that she opted for rather calm background music to suit the purpose of her study, but she also points out that more stimulating music can be chosen if learners are in need of different energy levels. I assume that the vague descriptors *calm* and *stimulating* also refer to the different tempi of the music. Based on these findings in the literature, a rather moderate tempo of background music has been chosen for this study, because the desired atmosphere should have been motivating and stimulating instead of calming.

The characteristics of loudness, complexity and familiarity also have a great influence on the auditory environment and peoples' reactions. Loudness obviously can impair a speaking task, if participants are not able to hear their interlocutor. For instance, in the study by Wolfe (1983: 197), different volume levels of background music were perceived as disruptive in the loudest group with 80 to 90 dB. However, the disrupting effect on participants did not reflect upon the results of the mathematical problems (Wolfe 1983: 197). Though, in a speaking task the background noise in the classroom differs significantly, in that the students' chatter mixes with the background music. In

that situation the loudness of the background music might pose a greater distraction on the students as the overall volume could rise.

Music complexity also has been associated in the literature to cause great difference in listeners' perception. As has been mentioned before on the issue of introverts' and extroverts' reactions to music, Furnham and Allass (1999: 32) have defined the concept of complexity according to several subcomponents. Thus, music can be complex or simple regarding its tempo, rhythm, repetition, melody, vocal and instrumental layering. If a certain piece of music, therefore, shows a remarkable degree of variety in these components, the music is perceived as complex. More complex background music leads to greater arousal and is more distracting than simple music, which might be due to the mechanism of *brain stem reflexes* mentioned in section 5.2. (Furnham & Allass 1999: 36). This mechanism induces arousal if any unusual changes in the auditory environment are noticed. Therefore, the background music should not reveal a too high information load, as it could disturb concentration on the primary task of speaking (Kang & Williamson 2014: 729). So, for example, Kang and Williamson (2014: 733) have chosen instrumental background music of medium-tempo, which is easy to listen to with only minimal changes in tempo and rhythm in order to avoid any novel and distracting sounds.

A special case on the topic of background music takes the genre of jazz. This music genre has been identified to be particularly conducive in reading tasks due to its unique characteristics (Freeburne & Fleischer 1952: 108; Furnham & Allass 1999: 30). It seems to induce a perfectly moderate level of arousal for a mixed group of people (introvert and extrovert), via its emphasized regular beat and its simple, repetitive rhythm (Furnham & Allass 1999: 30). In addition, jazz music also displays a certain degree of variety and range in style, which renders it more interesting, but at the same time it does not lead to over-arousal (Furnham & Allass 1999: 30).

The concept of familiarity and personal preference determine a further important issue on the choice of appropriate background music. On the one hand, it could be argued that familiar music could be more motivating for teenagers, and on the other hand, familiar music might be too distracting. In the literature, both conditions have been tested, but the familiar music showed greater distraction on a primary task than unfamiliar music

(De Groot & Smedinga 2014: 701). Nevertheless, unfamiliar music is not the same as completely new and unusual music, so the genre could be familiar, solely the specific music piece can be unfamiliar. Thus, Cassidy and MacDonald (2007: 522) state “[t]he music used was rated as ‘popular’, including a mixture of genre and forms. This allows for affiliation effects but controls for *familiarity effects* [my emphasis]”. The importance of familiar music is also evident in the mechanism of *musical expectancy*, because increased arousal is evoked if a certain piece of background music is unpredictable (Juslin & Västfjäl 2008: 568). People are used to specific music genre in their own culture and social group and therefore have certain expectations about the structure of music (North & Hargreaves 2008). Like language, music is also highly structured and follows certain rules (Juslin & Västfjäl 2008: 568). If those rules are violated or unusual, it raises attention. So for example, in our western culture in Europe, we would most certainly be completely unfamiliar with traditional Asian music, unless one has a special relation or interest in this culture and its music (North & Hargreaves 2008). Thus, personal preference also plays an important role.

Preference or liking of a particular music also influences people’s performance on a specific task. According to Berlyne (1971, cited in Juslin & Västfjäl 2008: 564), individuals’ favourite music elicits their optimum arousal level in a specific situation, because everyone prefers that kind of music that neither overwhelms nor bores them. This is not only true for music, but for any stimuli that evokes the preferred mood (Caldwell & Riby 2007: 993). In this respect Caldwell and Riby (2007: 993) assert that “[p]references for a particular stimulus (i.e. music vs. story) exaggerated the enhancement effect. It appears therefore that personal preference played a major role in the observed results and that music belongs to one of several types of pleasurable stimuli that lead to increases in arousal or mood.” Actually, Caldwell and Riby (2007) come to this conclusion, as they compared performance on a visual oddball task in professional classical and rock musicians. Both groups have been exposed to their preferred music and to the other music genre, which is completely contrasting. The findings show that interestingly classical music is beneficial for both groups, but genre preference has a stronger effect on individuals’ performance on cognitive tasks (Caldwell & Riby 2007: 996). Furthermore, Cassidy and MacDonald (2007: 529) substantiate the argument of genre preference for cognitive tasks, as they observed a main effect of music preference in relation to personality differences. Introverts in their

study strongly favoured pop music and classical, relaxing music over genres like rock, metal and hip-hop (Cassidy & MacDonald 2007: 529). The converse is true for extroverts in their study (Cassidy & MacDonald 2007: 530).

Finally, significantly different results are obtained if background music is vocal or instrumental. Several studies observed that especially vocal background music disrupts cognitive processes on a primary task compared to instrumental music (De Groot & Smedinga 2014: 699; Salamé & Baddeley 1989: 119; Kang & Williamson 2014: 733). In particular, the study by Salamé and Baddeley (1989) focuses on the different impacts of vocal and instrumental background music compared to silence, noise and unattended speech. In their experiments, participants had to fulfil a visual memory task in the respective sound conditions (Salamé & Baddeley 1989: 107). Their findings reveal that speech and vocal music is most distracting, due to the significantly higher occasions of mistakes (Salamé & Baddeley 1989: 119-121). By contrast, silence and noise equally show the best results, without hindering cognitive performance (Salamé & Baddeley 1989: 118). Instrumental music, however, is situated between those two conditions (Salamé & Baddeley 1989: 118). The authors explain the consistent results on the basis of the multi-component working memory model (Salamé & Baddeley 1989: 120-121). In fact, the phonological loop, which is essential to hold and repeat acoustic information for further processes is impaired (Salamé & Baddeley 1989: 119). Salamé and Baddeley (1971: 120-121) hypothesise that some sort of filter must be responsible for the overload of the phonological loop, letting in voice and voice-like sounds but filtering out noise. Since instrumental music shares characteristics of human voice, it also partly passes through the filter, affecting components of the working memory (Salamé & Baddeley 1989: 121). De Groot and Smedinga (2014: 699) also confirm this hypothesis through their outcomes in an experimental study on vocabulary learning, comparing vocal and instrumental music. According to this hypothesis, the unattended speech during the speaking exercises in the classroom should cause the greatest distraction in cognitive processes. It is questionable if the additional instrumental background music constitutes a further source of distraction, or if it helps students to ignore the chatter around them. According to a student comment in the study by Cunningham (2014: 185), the background music was perceived as beneficial on that particular matter, because the music helped to fade out the voices of the other students.

7. Creating a comfortable classroom atmosphere with background music

One recurring and pivotal finding in the literature about background music is that it can facilitate the creation of a comfortable, relaxed and motivating classroom atmosphere (Cunningham 2014: 182; Hallam, Price & Katsarou 2010: 119). Due to music's emotional arousal, it could facilitate the establishment of a supportive learning atmosphere, which is particularly important in second language learning regarding speaking activities and eventual speaking reticence of students. Since the teaching methodology of communicative language teaching (CLT) plays an increasingly important role in foreign language learning, it is essential for teachers to foster students' willingness to communicate (WTC), which strongly depends on a relaxed and comfortable classroom environment without students feeling stress or even anxiety (Peng & Woodrow 2010: 856). In this respect, background music is supposed to lower the *affective filter*, thereby leading to increased student output (Cunningham 2014: 180). In fact, the generation and maintenance of a supporting and stimulating classroom climate is not only essential for speaking activities, but the school curriculum for lower secondary AHS emphasises this point in general and it is therefore part of the teachers' responsibility. Henceforth, the following section deals with the importance of a supportive learning climate and how teachers could use background music as a tool to achieve greater WTC of students. Therefore, the unique social construct of a classroom setting is accounted for, to analyse and investigate how background music works in this setting.

7.1 Willingness to communicate in L2 (WTC)

Language teaching in schools nowadays follows the principles of communicative language teaching (CLT) that has emerged as a counter movement of Situational Language Teaching in the 1960s (Richards & Rodgers 2001: 153). This British approach to language teaching focused on teaching of structures in specific situations, rather than on the functional and meaningful language use for communicative purposes (Richards & Rodgers 2001: 153). The fundamental principles of CLT include the communication principle, the meaningfulness principle and the task principle (Richards & Rodgers 2001: 161). The former means that only engagement in real communication promotes learning (Richards & Rodgers 2001: 161). The meaningfulness principle

refers to the fact that only language that makes sense to the learner can induce a learning process and the latter emphasises the authenticity of the activity (Richards & Rodgers 2001: 161). On the whole, the primary goal of CLT for language learners is being able to communicate effectively and fluently in meaningful situations, where struggling and making mistakes is a normal part of the learning process (Richards & Rodgers 2001: 172). The same demands have been put forward by the school curriculum for lower secondary AHS in Austria (page 2), where it says that, despite the equal balance of all language skills, teachers should provide and encourage opportunities for oral communication practise as often as possible. Thus, it is a pivotal task of teachers to spur on students' WTC to increase actual speaking practise, which then leads to accelerated learning and mastering of the language.

In this respect, a comfortable classroom climate is a fundamental factor in establishing students' WTC in a foreign language (Peng & Woodrow 2010: 857). A definition of the term is given by Macintyre et al. (1998: 547) who say that "[...] we define it as a readiness to enter into discourse at a particular time with a specific person or persons, using a L2." The factors influencing students' WTC are multifaceted, with more immediate and direct factors and more remote and indirect factors affecting WTC. What teachers can control in the classroom, however, are the situational variables that have an impact on WTC, which are the following:

- *Feeling of security or anxiety*
- *Class atmosphere*
- Group size
- Familiarity with interlocutors
- Familiarity and interest in topics under discussion
- Self-perceived speaking ability
- Task type and difficulty

(Vongsila & Reinders 2016: 346; Kang 2005: 282; Cunningham 2014: 184)

In particular the first two situational variables – feeling of security or anxiety and class atmosphere – can be positively manipulated with the use of background music. However, even if students feel comfortable in their English class without feeling any stress or fear, they still would be inhibited to communicate if they had to talk to unacquainted colleagues or if they do not have enough background knowledge to talk

about a certain topic. Thus, all factors are interdependent, which renders it difficult to determine the reasons of some students' reticence. The complex interaction of all the listed parameters is evident in the study by Cunningham (2014: 184), who used background music during group discussions to affect the mood in the classroom too. She discovered in participants' feedback comments that the interest in the topic, the opportunity to prepare for speaking tasks and the interlocutors had a strong influence on their willingness to participate in the discussions. Several other studies on WTC in L2 also report that the number of interlocutors, familiarity and interest in the topic are crucial elements besides the overall classroom environment to influence WTC in L2 (Cao & Philp 2006: 486; Kang 2005: 282-284). So in order to draw conclusions on background music's effect on students' WTC in English, the variables of interlocutors and students' perceived competence are also considered.

Nevertheless, a stress-free and comfortable classroom atmosphere plays a crucial role to either encourage or hinder students' WTC in L2 (Riasati 2014: 117). Riasati (2014: 118) highlights that "[Students] tend to speak more in an environment which is friendly enough so that they feel secure and relaxed". In addition, Peng and Woodrow (2010: 856) found evidence that the classroom environment has a direct impact on WTC. They conclude that "[t]he significant path leading from classroom environment to WTC suggests that an engaging environment has the potential to foster WTC". What is more, their "data also suggested a significant effect of environment on motivation" (Peng & Woodrow 2010: 856). Since a positive classroom atmosphere implicates that students also feel motivated to learn and participate in activities, it follows that certain motivation strategies lead to heightened WTC. Thus, Dörnyei (2007: 729) mentions two strategies - emotional control and environmental control – among other strategies, to maintain and promote students' motivation in class. I propose that these methods can be achieved more easily with background music.

In fact, Dörnyei (2007: 729) elucidates that emotional control can be achieved through self-encouragement, relaxation and meditation techniques to implement a conducive mood for learning. In addition, the surroundings can be manipulated by "eliminating negative environmental influences and exploiting positive environmental influences by making the environment an ally in the pursuit of a difficult goal [...]" (Dörnyei 2007: 729). Since background music is able to significantly manipulate the sound

environment, it can be viewed as an essential component of the classroom climate. Although Dörnyei (2007: 728-729) labels these two strategies as self-motivating, teachers could make use of those strategies to enhance motivation on the whole classroom level. Similarly, Lozanov also made use of meditation and relaxation techniques in his Suggestopedia with the use of background music (see section 3.1).

Persuasive arguments in favour of background music in a classroom setting can be found in literature about second language learning. For instance, Mashayekh and Hashemi (2011: 2189) assert that “[m]usic helps to create a soothing and enjoyable environment for learning. It reduces pressure and tension in the class”. Similarly, Fonseca Mora (2000: 151), Bancroft (1985: 6) and Eken (1996: 46) argue that background music in the context of a classroom can aid teachers to positively influence the atmosphere, making it more pleasurable and relaxing. In addition, Kang and Williamson (2014: 737) clearly state in their final conclusion that background music has “a general positive effect on enjoyment and sense of achievement, [which] supports future research in this area [...]”. Furthermore, background music has the potential to appeal to peoples’ emotions through various mechanisms and change their mood as has been shown with the arousal-mood hypothesis (see section 5.2 and 5.3). To illustrate this point, the study by Hallam, Price and Katsarou (et al. 2002) provides noticeable evidence that pleasant background music is capable of changing students’ mood, which is evident in students’ behaviour. They found out that not only cognitive processes in mathematical and memory tasks improved, but also altruistic behaviour increases with pleasant background music (Hallam, Price & Katsarou 2002: 117-119). In particular, the children aged 10 to 12 years in the study were given short texts that describe everyday situations with a dilemma. They should decide in each situation what they would do, and tick either the pro-social or anti-social option (Hallam, Price & Katsarou 2002: 117). As the results indicate, background music has a highly significant impact on social behaviour, because the children showed less altruistic behaviour after listening to aggressive and unpleasant music (Hallam, Price & Katsarou 2002: 119). Thus, it can be argued that background music has an advantageous effect on students’ behaviour during speaking activities, as communication constitutes a social activity. Finally, I hypothesize that background music might lead to more pleasure and enjoyment in class due to the lowering of the so-called *school filter*. Dörnyei (2007: 721-722) uses this term to explain that student relationships can be cemented especially in out of school

contexts, where the *school filter* is low. With background music, I believe that the evoked atmosphere could be associated with coffee shop contexts and thereby lower the *school filter* leading to greater comfort. Regarding these statements and arguments, it can be assumed that background music has a true potential for establishing a comfortable and enjoyable classroom climate.

Yet, in order to achieve this desired goal of getting students talk, numerous techniques have been recommended in the literature, except the use of background music. Only the study by Cunningham (2014) investigated the use of background music to foster students' WTC. Other studies propose methods such as establishing a close relationship between teacher and students, using different leadership styles, implementing strategies for correcting mistakes, letting students work in small groups or pairs instead of talking in front of the whole class and providing enough speaking practise among others (Riasati 2014: 120; Dörnyei 2007: 724-725; Vongsila & Reinders 2016; Young 1990: 550). What all studies about creating a learner friendly classroom environment have in common is the alleviation or prevention of stress and anxiety. Even though background music has been appreciated for its mood enhancing effect in many other domains, such as psychotherapy and marketing, it seldom has been considered for educational purposes, except for Suggestopedia and the Mozart Effect in the 20th century. Considering the underestimation of background music's potential, the following part tries to justify its use in the classroom during students' speaking tasks on the basis of the *affective filter* hypothesis, foreign language classroom anxiety (FLCA) and research evidence in the field of music therapy and education.

7.1 Affective filter hypothesis

The affective filter hypothesis by Steven Krashen (1982: 31) proposes that second language learning can only take place if the learner exhibits an optimal predisposition according to the affective variables of motivation, self-confidence and anxiety. In other words, if the learner is highly motivated, has a positive attitude towards his language abilities and feels secure, the affective filter is low and language acquisition is facilitated (Krashen 1982: 31). Conversely, if the affective filter is high, the process of second language learning is significantly impaired, because the learner exhibits no motivation and feels stressed and insecure in the respective situation (Krashen 1982: 31). Thus, Horwitz (1995: 576-578) emphasises that “[a]ffective variables represent the

learner's willingness to engage in the second language acquisition process. [...] [Teachers need to be] aware that language learning depends as much on the emotional readiness of learners as on their cognitive abilities”.

Although Krashen's affective filter hypothesis highlights that a low affective filter is crucial for the processing of *input* rather than for producing *output*, WTC is also defined by the same affective variables (Krashen 1982: 31-32). Thus, Macintyre (2007: 568-569) elaborates that “WTC is a state of readiness occurring in the present moment. Its immediate influences are a state of *self-confidence* (defined by *low anxiety* and a *perception of L2 competence*) and a desire to communicate with a specific person” [my emphasis]. According to Horwitz (et al. 1986: 128) this mental block in learning situations is particularly evident during communication exercises in the foreign language class. This is due to the fact that the process of communication not only serves to communicate literal meaning, but also indirect social information about the speakers themselves (Horwitz, Horwitz & Cope 1986: 128). As fluent conversation often breaks down, owing to a lack of language proficiency, language learners feel fear or even panic, because their “self-concept as a competent communicator” is challenged (Horwitz, Horwitz & Cope 1986: 128). For this reason, Horwitz (1995: 576) argues that “[l]anguage learning seems to be a more intrinsically ego-involving activity than most other kinds of school learning. Because this specific form of anxiety reaction is commonly associated with second language learning, Horwitz, Horwitz and Cope (1986) coined the term foreign language classroom anxiety (FLCA).

7.2 Relieve of stress and anxiety - Classroom Anxiety (FLCA)

In the previous section, the crucial element of stress and anxiety as influencing factors on students' willingness to speak has been emphasised. Consequently, it is commonly agreed that one fundamental task of teachers, and especially language teachers, is to avoid classroom anxiety. In order to measure if students' feel either relaxed or anxious in their foreign language class, Horwitz Horwitz and Cope (1986) have devised the foreign language classroom anxiety scale (FLCAS), which has been calculated in this study as well. Actually, Horwitz, Horwitz and Cope (1995: 577) were one of the first to raise awareness of this important issue, by claiming that “emotional responses are too important to be left to chance, and the teacher should have explicit instructional strategies for developing motivation for language learning, decreasing anxiety, and

confronting erroneous beliefs about language learning”. I propose that such a strategy could represent the use of background music. For this purpose, convincing evidence from the field of music therapy and psychology will be considered.

For instance, research on the effect of music on human stress response and anxiety yields interesting results, which support its use not only for ill people suffering from Alzheimer or depression, but also for healthy individuals. For instance, Thoma (et al. 2013) discovered different psychobiological stress responses in healthy participants after listening to relaxing music. They conducted a laboratory experiment, where the effects on heart rate, respiration, cortisol level in saliva and subjective perception of stress were tested in three different conditions (Thoma et al. 2013: 2). One group listened to relaxing music, another listened to the sound of rippling water and a third group rested in silence (Thoma et al. 2013: 2). Although the relaxing music revealed some beneficial effects on the recovery of the autonomic nervous system and the parasympathetic system, the sound of rippling water showed stronger effects than the relaxing music (Thoma et al. 2013: 6). They also note that their study does not fully support using music as a tool for relieving stress, as their findings are not unequivocal (Thoma et al. 2013: 9). They attribute the discrepancies in their study to the issue that the participants were too relaxed right at the beginning of the experiment, so that the relaxing music could not evoke any further relaxation. Still, Thoma (et al. 2013: 9) strongly recommend further investigation on the effects of music on human stress, because there remain some open questions as to whether music has a relaxing effect or not. Another study by Guétin (et al. 2009) investigated the use of music therapy on Alzheimer patients suffering from anxiety and depression. They found out that music had a relaxing effect on patients due to its effect on mood (Guétin et al. 2009: 37; 45). Moreover, they compared the results on two different groups, one with the use of music therapy and the other without. The group using the music therapy revealed significantly more positive effects than the control group, which had a lasting effect two months later (Guétin et al. 2009: 44).

What can be deduced from these recent findings is that listening to music might reveal beneficial effects in tense or stressful situations, which could be useful if students are stressed during speaking tasks. However, in a reflection article by Horwitz on the situation of FLCA since her initial article in 1986 she writes

To me, the most important finding of the FLCAS studies is that a consistent 30% to 40% of language learners report at least moderate levels of language anxiety, and I am thrilled that, as a result of these studies, today's language teachers are much more sensitive to the experiences and needs of anxious students. (Horwitz 2016: 934)

According to this statement, I expect rather low scores on the FLCA scale. Nevertheless, it might be the case that students do not feel anxious in their foreign language class in general, but they might get stressed in the immediate situation of speaking. For instance, Kang (2005: 284) discovered that participants were scared and most reluctant to speak at the beginning of their conversations. Once they started to talk, they have overcome their initial inhibition. In this respect, Cunningham's study (2014: 186) revealed that the background music could be helpful for students to initiate their conversations.

8. Empirical research

The empirical research project tries to answer the four research questions on the effects of background music on students' speaking performance in the EFL classroom. For this purpose, three different perspectives have been taken into account, namely the students' perspectives in the form of two questionnaires, my own perspective during classroom observations and the teachers' perspectives in the interviews. Subsequently, the details of the procedure are explained including the choice of background music, based on the theoretical implications in the literature. Then the outcomes and results of the questionnaires and interviews are presented, before they are interpreted according to the research questions.

8.1 Procedure

Before I started the empirical project in the school, I interviewed the teachers in open interviews on the telephone about their opinion on background music during speaking exercises and their perception of students' behaviour and performance. Afterwards, I attended their English classes, where I presented my project and myself to the students and distributed the questionnaires. The following weeks I visited their English classes regularly and played background music to the students, while they conducted their speaking tasks. Thus, I occupied a passive role in the classroom, because I always sat at the back, playing the music at the appropriate moment and observed the classroom environment and students' behaviour. After four weeks of observation, I finished the

project by handing out a feedback questionnaire to the students and interviewing the teachers. Again, the second interviews were conducted in an open conversation on the telephone due to time constraints.

8.2 Choice of music

The choice of background music for the current study has been made on the basis of previous empirical research studies and their recommendations as illustrated earlier in section 7.3 and the earlier mentioned mechanisms by Juslin and Västfjäl (2008: 563), which predict emotional reactions of students. The music should evoke a motivating and stimulating mood in order to create a comfortable classroom atmosphere for oral communication, and therefore, the following criteria have been applied:

- Moderate and regular tempo/rhythm
- Instrumental instead of vocal music
- Complexity: minimal changes in tempo, rhythm and melody
- Happy and joyful melody
- Unfamiliar music pieces
- Students' preferred music genre
- Mixture of genre
- Instrumental jazz
- Short intro

Since this list of criteria is quite elaborate and the time for the research project was limited due to holidays, tests and excursions, I chose the respective songs myself instead of letting the students chose their own music. Therefore, I came up with the following music pieces:

- Moments by Kyle Watson, 2016
- Morning Dew by Nora en Pure, 2015
- Apps Blues by Nippon Nights, 2017
- Surge by Above and Beyond, 2017
- Connected by Nuit Blanche, 2014
- This Is What You Came For by Brooklyn Duo, 2016
- Cool Kids by Steve Petrunak, 2014

- Sweet Home Alabama by Josh Vietti, 2014
- Let Me Love You by Josh Vietti, 2017
- Shape of You 2017 R Bitz, 2017
- For Sure by Al Gomez, 2016
- Make It Happen by Jay Soto, 2007
- Personal Space by Yotto, 2015

The only exceptions to the list of criteria are the songs of the instrumental pop genre. These songs have been chosen on purpose, in order to observe if students react differently to songs they are familiar with. Otherwise, the genre of the music adheres to the set criteria ranging from house to instrumental pop, electronic, dance and jazz, which should create a balanced mixture.

The music pieces of the genre of house are all characterised by electronic music, which either stems from a keyboard as in Moments by Kyle Watson and Morning Dew by Nora en Pure or from an e-guitar in the song Apps Blues by Nippon Nights. The beats per minute (BPM) in this genre fluctuates around 120 BPM, which is a rather lively rhythm, because 60 BPM are considered as extremely slow and especially apt for meditation (Bancroft 1985: 11). Moreover, the rhythm in these songs is very regular and often the beats are played with percussions. Sometimes the percussion and melody alternate in volume, and softly fade in or out. Still the transitions of verse is gentle in all these songs, to ensure that the music is not perceived as boring or too distracting. The two songs Surge by Above and Beyond and Connected by Melosense differ in terms of tempo to the genre of house, because they reveal a BPM of 63 and 107 respectively. But the electronic melody and sound is similar to the house music. Some variety brings the genre of jazz to the classroom environment, because the instrumentation is completely different to the electronic music before. For instance, the refrain solos are played with an acoustic guitar and a saxophone. The beat and rhythm is regular and moderate by 104 and 105 BPM, so it is a bit more relaxed than the previous electronic genres.

Finally, I included the instrumental version of four up to date songs, which are likely to be familiar to the students. The song “This Is What You Came For” by Brooklyn Duo is played with a piano in the intro and during the main part, the piano alternates with a violin. In addition, this song has a strong beat that starts and stops a few times. In the

song “Cool Kids” by Steve Petrunak, the whole song is played almost exclusively with guitars and no percussions, whereby the verse in between consist of a guitar solo. The song “Sweet Home Alabama” by Josh Vietti, starts with an e-guitar intro and the melody is played with a violin. This song is the liveliest with a BPM of 194 and the sound resembles rock or country style. The last song “Shape of You” 2017 R Bitz has an electronic sound and is close to the original version, because the playback remains the same, only the lyrics have been removed.

8.3 Results of empirical research

Now the results of the empirical research are discussed. First, the different parts of the students’ questionnaires are analysed, which consist of students’ music genre preferences, their perceived communication competences and the FLCAS. In a next step, the results of the feedback questionnaires after the project are presented, including students’ evaluation of the method. Following the students’ opinion on background music, my own impression on the students’ behaviour during speaking tasks with background music is discussed. Finally, the third perspective is taken into account in the results of the teacher interviews before and after the project.

8.3.1 Student questionnaires

For the students’ opinion on the use of background music I created two different questionnaires before and after the study. These questionnaires were distributed in paper-based form during their normal English lessons in the presence of their teachers. Before I handed them out, I introduced myself and explained the purpose and procedure of the project as well as the questions of the questionnaire. In this introduction I emphasised that the questionnaire is anonymous and their teacher will not have access to the results. Therefore, I urged them to answer the questions as honest as possible. Afterwards the students’ had about fifteen minutes to fill them out. During this time, they could ask for clarification if some of the questions were not clear. Then I collected the questionnaires for analyses. The same procedure has been applied at the end of the project, when I distributed the feedback questionnaire.

8.3.2 Familiarity of background music and music preferences

The first five questions of the initial questionnaire asked the students about their music habits and if they are used to the method of background music during school activities or if it is completely new to them. The results revealed that most of the students in the 6th grade have never heard background music in school and only a few of them have experienced this method in religion and arts, where they perceived the music as rather positive. In the 5th grade, all students have listened to background music in the subject of arts, religion and music. Again, most of them indicated that they enjoyed the music in those subjects. In the third item, the students' were asked about their favourite music genre. The table below illustrates the ranking of the favourite genre, whereby other genres that have been ticked only once or twice are excluded. This list has been considered in the choice of music above, although the popular genre of hip hop had to be disregarded due to its lyrical form.

Table 1: Ranking of favourite genre

Rank	6th grade	5th grade
1	Pop & Hip Hop	Pop
2	Rock	Hip Hop
3	House	House
4	Jazz	Rock & Electro

As the ranking shows, both classes clearly prefer the genre of pop and hiphop, followed by house music on the third rank, and also rock music is rated very popular. Thus, the choice of genre seems to reflect the contemporary modern music style, as opposed to traditional or classical music genre. Items four and five have already been mentioned in section 4, which demonstrate the importance of music for the students.

8.3.3 Attitudes towards communication in English

The last items on the first page of the questionnaire concern the students' self-perceived communication competence, their issues in oral communication and their last grade on their English test. This information is relevant because students' WTC also indirectly depends on how learners perceive their own language ability (Vongsila & Reinders 2016: 346; Kang 2005: 282; Cunningham 2014: 184). Moreover, the last grade has been ascertained in order to regard the teachers' evaluation of students' proficiency levels

and to investigate if the grade is related to the FLCAS and students' perception of background music. The same connection has been investigated in the study by Bashosh et al. (2013), who found no relationship between the variables of WTC, FLCA, proficiency level, shyness and gender. In the 5th grade, the grade point average (GPA) of all students from the last test is 3, where most students received a 4 or 3, one got a 1, and no one failed the last test. In the 6th grade, the GPA is slightly higher revealing a 2.6. Notably, one student failed the last test, but no one received a 4 and most students scored with an average 3. Two learners also achieved a 1 and three students got a two, which indicates that the proficiency level strongly diverges.

The students' own assessment of oral communication is illustrated in figure 3 below.

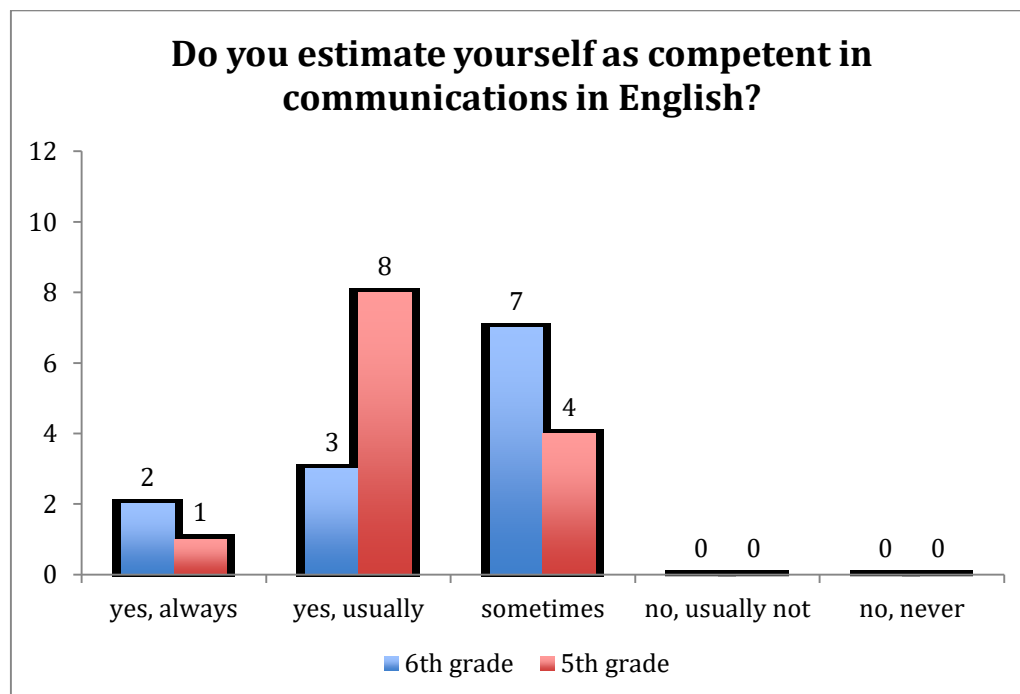


Figure 3: Perceived speaking competence

The results of item six on students' self-perceived competence in oral communication shows that none of them believes that they are not capable of speaking in English. Whereby, most of them estimate themselves as average in speaking. On the whole, both groups of learners seem to have a positive image about their oral communication skills. In the seventh item of the questionnaire, I asked students what could be a reason that inhibits their participation in speaking activities. Students' in the 6th grade predominantly answered that insufficient topic interest and, lack of vocabulary and tiredness prevent them from speaking. By contrast, students in the 5th grade reported

that they either lack motivation or there is nothing that prevents them from speaking. However, two statements also hinted at fear of making a wrong utterance.

8.3.4 Results FLCAS

The final section of the questionnaire includes 23 questions that form the FLCAS. The original scale by Horwitz (1986), however, includes 33 questions, which have been reduced in order to make the questionnaire more feasible for the teenagers in this study. The index is based on a five-point Likert scale, where value 1 indicates no anxiety and 5 indicates high anxiety. Thus, the FLCAS in this study ranges from 23 to 115. I also divided this scale into three categories that indicate *no anxiety* (23 to 53), *moderate anxiety* (54 to 84) or *high anxiety* (85 to 115). Moreover, the FLCAS can be divided into three subcategories, which measure *communication apprehension*, *fear of negative evaluation* and *test-anxiety* (Horwitz, Horwitz & Cope 1986: 129). The same classification has been conducted in this study, where items 9, 12, 15, 18, 19 and 26 refer to *communication apprehension*, items 10, 13, 24, 27 and 29 relate to *fear of negative evaluation* and items 12, 14, 16, 17, 20, 21, 22, 23, 28, 30 and 31 refer to *test-anxiety*.

The results of the FLCAS in both classes reveal that the teenagers feel relaxed in their English classes with only two exceptions in the 6th grade. The mean value in this class accounts for 44.5 with a median value of 39.5, which is extremely low compared to the maximum value of 115 and signifies *no anxiety*. The considerable difference between the mean and median value in the 6th grade is due to the two outliers, who reached 72 and 68 points on the scale. Those values are significantly higher than the values of their colleagues and signify moderate anxiety or stress. In particular, the student with 72 points on the scale strongly agreed to item 22, 23 and 29, where the last one means that he or she is afraid of being laughed at in speaking by other colleagues. In connection to speaking, this student also agreed with items 12 and 24, which say that the teenager feels embarrassed and insecure to talk in English in front of other students. The other one, who scored 68 points, agreed with items 9 and 27, which say that the student feels insecure to talk in English and believes that the other classmates are superior in speaking exercises. The negative self-perception is also reflected in the grade of the most anxious student, who failed in his last test and ticked in item 6 that he or she only

sometimes feels competent in oral communication. On question item 7, the learner also wrote a comment that corroborates his or her insecurity in speaking by saying: “Manchmal traue ich mich nicht, da ich oft nicht das Vokabular dafür habe und ich mich nicht blamieren möchte. [Sometimes I am afraid, because I often lack the necessary vocabulary and I do not want to embarrass myself]”. By contrast, the student who scored lowest on the FLCAS in the 6th grade (24), perceives his oral communication skills as always good and got a 2 on his recent English test. Thus, the scale shows a slight correlation with the teacher’s grading.

In the 5th grade, however, no significant correlation between grades and the FLCAS could be noticed. Though, the mean (44.3) and median (44.5) values also show that the students seem to feel relaxed and comfortable in their English class rather than anxious. The minimum score in the 5th grade is two times 35 and the maximum level is 58, which signifies a slight nervousness of one student. Finally, the calculation of the relative values of the three subgroups on the FLCAS did not reveal any significant differences in both classes.

8.3.5 Results of feedback questionnaire

The second questionnaire after the research project has been conducted in the same way as the first one and consisted of only five items (see Appendix 2). The information gained from the feedback sheets should, thus, enable the answering of the research questions if background music aids learners during their oral communication practise. To this end, item one asked the learners how they perceived the background music, which is presented in figure 4 below.

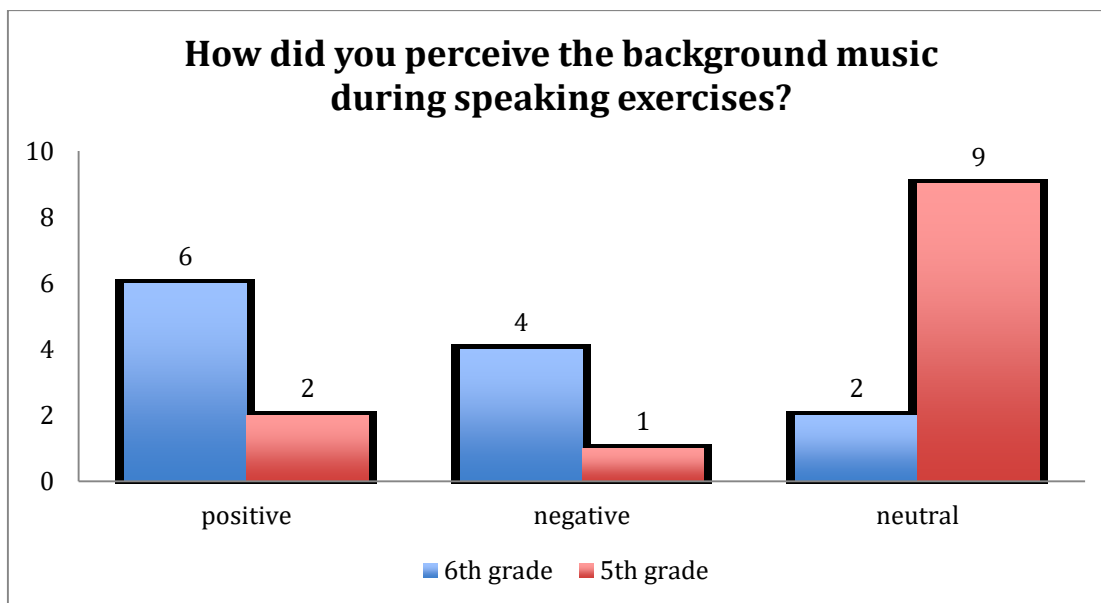


Figure 4: Evaluation of background music

As the figure 4 illustrates, in the 6th grade more students rated the method of background music during speaking exercises as positive, because six students voted for the music and four voted against it. Two students in this class rated the music as neutral. In the 5th grade, only two students rated the background music as clearly positive, whereas one student perceived it as negative and the majority rated it as neutral. In relation to the evaluation of the background music, I asked the students why they perceived the music as either helpful or disruptive. The possible answers beneath the positive evaluation concerned the inability of the teacher to listen in on students' conversations, the creation of a motivating classroom atmosphere, the facilitation to start a conversation and the prevention of an uncomfortable silence. Most of the students in the 6th grade who liked the background music ascribed the positive influence to the comfortable classroom atmosphere the music evoked, the prevention of a strange silent moment and the easier start of conversations with the music. However, the students in this class who disliked the background music indicated that they could not concentrate. One interesting feedback comment says that "Anfangs war die Musik sehr ablenkend doch desto länger sie lief desto angenehmer wurde sie. [Initially, the music was very distracting, but it got more comfortable the longer it continued.]". In the 5th grade, the positive reasons for the background music have solely been ticked twice for the atmosphere, the prevention of silence and the inability of the teacher to listen to them. Nevertheless, only two students in this class marked that they could not concentrate.

Equally interesting was the following question in the questionnaire that asked the students if they would like to continue listening to background music during speaking tasks. The results are presented in the figure 5 below.

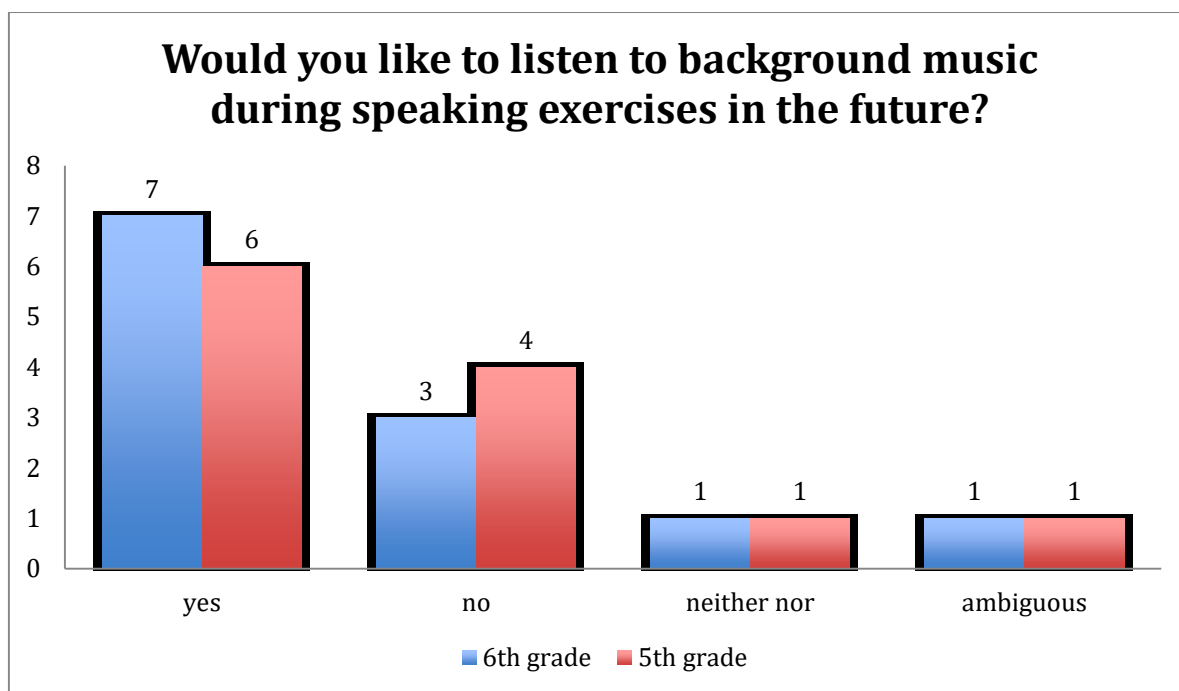


Figure 5: Continuous use of background music

Notably, the responses about the continuous utilization of background music during speaking tasks differ from the evaluation in the previous question. In the 6th grade, most of the students prefer to continue listening to music during speaking tasks. Three of them indicated that they neither want to listen to background music during speaking exercises nor during other classroom activities. Thus, three out of twelve students in this class are certainly against any use of background music. One questionnaire, however, revealed ambiguous answers, because positive reactions were marked as well as negative ones.

In the 5th grade, two students were missing during the feedback session, which is why I only received twelve questionnaires. On the first sight, it seems as if the students in this class are not very fond of background music, but only one of them is clearly against it, while the others indicate that they would prefer listening to background music during other activities such as writing and group work. Six students clearly state that they

enjoyed the background music and they would like to listen to background music during speaking as well as in other activities. These are shown in figure ... below.

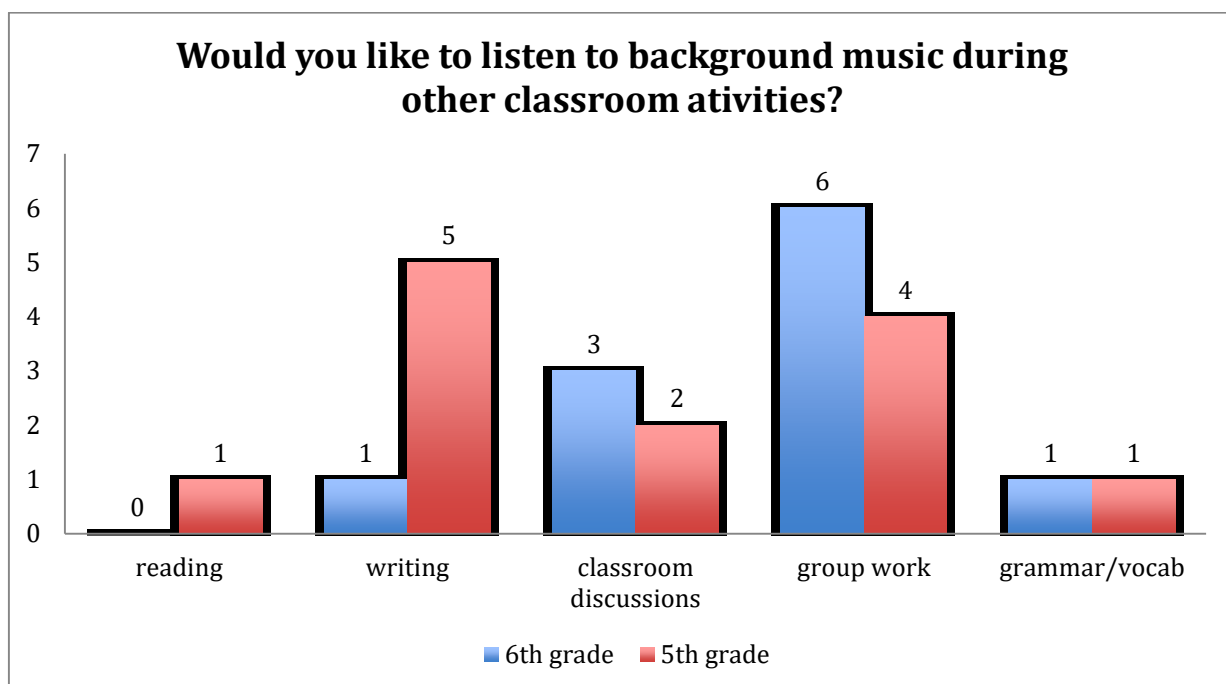


Figure 6: Background music during other activities

Interestingly, in the 5th grade the majority of students would like to listen to background music during writing exercises, which has been identified as most inefficient and disruptive in the literature on background music during cognitive tasks. In the 6th grade half of the class would like to do group work in the presence of background music.

Following question three, students were asked if they recognised any of the music pieces during the research. Seven out of twelve students in the 6th grade stated that they knew some of the songs, whereas two learners each indicated that they did not know the songs or they could not remember and one stated that he was familiar with them. In the 5th grade only four students were familiar with some of the songs, while the others did not remember or were unfamiliar to the songs. The last question of the questionnaire concerned the topic interest of students' as this variable could have a considerable influence on their motivation to speak. The teenagers, therefore, rated their interest on a scale ranging from 1 to 10, which signify no interest or high topic interest respectively. The results show that students in both classes perceive the discussion topics as quite interesting with mean scores of 6.5 and 6.1.

Finally, I analysed if there exists any correlation between the preference for background music, students' grades and their FLCAS. As has been mentioned earlier, a slight correlation has been detected between the FLCAS and the grades of students in the 6th grade. However, the music preference did not reveal any correlation with the two other variables in both learner groups.

8.4 Classroom observations

My primary focus during the classroom observations was the learners' behaviour during speaking exercises and their reactions to the background music. According to the first research question, I looked at how easily students commenced their conversations and whether they were able to keep them going, or if the teacher had to interfere and motivate them. For this purpose, I also considered if students were provided with sufficient background knowledge and vocabulary to except difficulties stemming from this issue (Cao & Philp 2006: 489; Kang 2005: 283). Concerning the second research question, I investigated if learners could concentrate better on their speaking tasks due to the induced arousal by the background music. Thus, I tried to observe if students were concentrated on the task, or if they were distracted by the music or any other external factors. An important indication was eye contact and body language of students. If they lost eye contact or turned away from their interlocutors, they were most probably distracted.

Another crucial focus in my observations was the factors influencing students' WTC, which are mentioned in the third research question. To answer this question, if background music can foster students' WTC, I also concentrated on the other variables influencing WTC (group size, familiarity with interlocutor, task type, classroom atmosphere and feeling of security or anxiety). Since the variable classroom atmosphere is already implicated in relation to learners' WTC, the fourth research question about the classroom environment is also addressed. According to Riasati (2014: 117) and Dörnyei (2007: 726), the teacher plays the most crucial part in establishing a comfortable learning atmosphere due to their behaviour in class. Such behaviour is reflected mostly in their relationship to the students and how they deal with learners' mistakes (Riasati 2014: 118). In this respect, I observed the situational and task related variables as well as the relationship between the teacher and the learners.

8.4.1 Observations 6th grade

In relation to the above mentioned observation criteria, I observed in the 6th grade that the teacher provided the students with sufficient vocabulary and input material for the speaking exercises. For instance, they either had a sheet of paper with pictures and vocabulary or they had to talk about the book they recently read. Moreover, the first speaking task on the 7th of March was an information gap activity with a partner, where they had to find the correct label for two different cartoons. When I played the background music for the first time on that day, I could observe that the learners briefly looked in the direction of the music, but they immediately continued with their speaking tasks. Even though they had to talk to a partner they did not normally talk to, they seemed talkative during the speaking activity and they started speaking straight away. Thus, the teacher did not need to interfere in the speaking activity and the task terminated the moment everybody finished. From my perspective, the students appeared relaxed and moderately motivated to fulfil the task and they did not seem to react strongly to the background music. Moreover, most of them used the target language and the teacher did not need to provide any further support. The table 2 below shows what type of background music has been used in each lesson together with the topic and mode of conversation.

Table 2: Overview of background music during lessons 6th grade

6th grade				
date: 7th March 2017				
Genre	Artist	Title	topic	conversation mode
House	Kyle Watson	Moments	environment	pairs / not a neighbour
	Yotto	Personal Space		
date: 13th March 2017				
Genre	Artist	Title	topic	conversation mode
Jazz	Al Gomez	For Sure	book discussion	pairs / new partner
	Jay Soto	Make It Happen		
date: 20th March 2017				
Genre	Artist	Title	topic	conversation mode
Instrumental Pop	Brooklyn Duo	This Is What You Came For	book discussion	pairs / new partner
	Steve Petrunak	Cool Kids	with keywords	
	Josh Vietti	Sweet Home Alabama		
date: 22nd March 2017				
Genre	Artist	Title	topic	conversation mode
Instrumental Pop	Josh Vietti	Let Me Love You	book "Part Time Indian"	pairs / new partner
	2017 R Bitz	Shape Of You		
date: 3rd April 2017				
Genre	Artist	Title	topic	conversation mode
Dance	Above And Beyond	Surge	Sports	pairs / friends
Electronica	Melosense	Connected		
House	Compuphonic	Dolce		

One week later, students' should have started with a speaking task right at the beginning of the lesson and concurrently fill out a handout about a book they should have read. Instead of talking, they started to make notes on their handouts and the classroom got silent with almost nobody talking. In addition, some students seemed extremely tired, because I observed some of them yawning. Then I observed a group of three students at the back who stopped talking about their task, and instead, chatted about the music in German. The atmosphere during this lesson seemed a bit tired and indolent as the students' were not focused and avoided speaking in English, even with the Jazz music in the background. After the lesson, the teacher remarked that the students could do better in speaking and according to his impression they were extremely reticent.

In the next session, the classroom atmosphere was clearly different, because of two interruptions. First a boy from another class entered the room, which made all students laugh. Consequently, the teacher had to demand them to be silent, when suddenly the class switched from extremely loud and excited to complete silence. However, when they discussed vocabulary together in teacher-student talk, the atmosphere became relaxed again, because the teacher made some jokes. This atmosphere was disturbed again as two boys threw a pen through the whole classroom twice. Thus, the teacher argued with them for five minutes about their inappropriate behaviour. However, the students made an understanding impression and apologized for their behaviour. Then an eleven minutes speaking session about their book followed, where they had to discuss keywords they got from the teacher. The music in this session was instrumental pop. Interestingly, I noticed that some of the boys hummed to the music and started moving to the beat. Moreover, I observed that the teacher was never annoyed or angry if a student forgot a vocabulary or information about the book they had to read. What was also interesting to observe was that even though the teacher demanded the whole class twice for a few minutes, the atmosphere quickly relaxed again.

On the 22nd of March, the lesson started with a vocabulary revision, which seemed difficult to the students, because some boys loudly lamented about it after the revision. The speaking exercise took place at the end of the lesson based on the information and material they discussed before. So, a lack of ideas and vocabulary has been tried to minimize on the part of the teacher. When I played the background music, some of the

boys negatively commented on it and other boys started moving a little bit to the rhythm. Thus, I reasoned that the popular and mostly familiar instrumental pop music is too distracting for students. Consequently, I chose a different genre for the last session.

The last session on the third of April was right after their skiing excursion. This lesson commenced unusually negative, because the teacher had to discuss a serious incidence related to their previous excursion. In particular, he told them that he cannot trust them if they do not obey the rules, which is a serious issue if he has to supervise them on the future trip to England. Despite the serious issue, the teacher continuously emphasised that he would lament it if he cannot go to England with them, because he likes them. For instance he said “I like you guys. [...] I like working with you. [...] I will forget about this”. Afterwards he gave feedback on a presentation, where he primarily mentioned the positive aspects by saying “brilliant presentation [...], fabulous presentation”. Then he objectively told the student to mind some pronunciation mistakes. Related to the topic of the previous presentation of the student, he started to rave about a famous movie and his private trip to Los Angeles when he saw the stars on the red carpet. At the end of the lesson, he let the students talk about the new topic of sports by providing them with three guiding questions, which they had to discuss with their neighbour. The students started to speak immediately, but they could not keep their conversations for long, because they had to ask the teacher several times for vocabulary and after a few minutes many students stopped talking. Then the teacher had to interfere and try to motivate them with additional questions. Furthermore, in this session I could not observe any obvious reactions of the students according to the background music.

8.4.2 Observations 5th grade

In the other class with the younger students, the atmosphere clearly differed to the 6th grade, because the environment was much louder and the students’ revealed extreme pubescent behaviour. For instance, they seemed very excited about the project when I first introduced myself. They immediately asked me if they could chose their own music and some of the boys could not wait until the music started, as they continuously asked about it. Another noticeable difference was the amount of joking between the teacher and students, as the teacher in the 5th grade more often got caught in personal conversations with students. Frequently, she used German to make fun remarks on

students' behaviour. In addition I observed that after the first lesson, a girl came to her and talked about personal experiences in her family. On the whole, the atmosphere seemed extremely relaxed and cheerful.

On my second visit on the 29th of March, I played the background music during the speaking tasks, which are listed in table 3 below for each lesson. After the first song, I immediately had to switch to a different genre, because the reactions indicated that the music was very distracting. For instance, one boy started singing to the song and asked me if the song was a remix. Another girl hummed the melody of the song and moved to the rhythm. The speaking task was to practise an individual long term as long as they could about a recent topic they discussed. Before the speaking they had to take notes in order to help them keep their short presentation to a partner. Some of the boys did not concentrate during the preparation and the speaking and kept to private talk instead.

In the next session, the students' should have brought their favourite holiday pictures in print, so that they could place them on a table and pick one for the speaking task. Some of the boys forgot about it and had to place their phones on the table instead, which triggered a loud discussion between the boys and the teacher. In this session, the students seemed very excited and restless. Then the teacher organized the students into random groups, where they should discuss the pictures they picked from a different person. Again, the students did not concentrate very well on task, as they talked frequently in German and only focused on the task if the teacher came over and asked them about the pictures. In general, the environment was loud and the students laughed a lot, but I could not observe any clear reaction to the background music.

On the sixth of April, the speaking task consisted of a small role-play in groups, where students had to discuss the pro and contra arguments of building a holiday resort. Before this speaking task, the teacher played two listenings on the same topic, which they had in their schoolbooks in order to provide them with input and ideas. This time, the students stayed together in their cliques and dispersed in the whole classroom. While the girls in front talked enthusiastically about the topic and laughed a lot, the boys at the back seemed demotivated and tired. They lay in beanbags and did not participate in the speaking tasks. Another group of boys talked a lot on different topics and made fun of

the speaking task. Finally, the background music was not perceivable anymore due to the loud student talk.

Table 3: Overview of background music during lessons in 5th grade

5th grade				
date: 1 March 2017				
Genre	Artist	Title	topic	conversation mode
Instrumental Pop	Brooklyn Duo	This Is What You Came For	holidays	pairs, individual long
Jazz	Jay Soto	Make It Happen		term friends
date: 2 April 2017				
Genre	Artist	Title	topic	conversation mode
Dance	Above and Beyond	Surge	holidays	random groups
date: 2 April 2017				
Genre	Artist	Title	topic	conversation mode
House	Compuphonic	Dolce	holiday resort	groups with friends
	Nippon Nights	Apps Blues		
date: 1 May 2017				
Genre	Artist	Title	topic	conversation mode
House	Kyle Watson	Moments	vegeterianism	random groups
	Yotto	Personal Space		
	Nora En Pure	Morning Dew		
date: 1 May 2017				
Genre	Artist	Title	topic	conversation mode
Jazz	Norman Brown	Soul Dance	Travelling	random groups

On the second of May, another university student held the lesson on the topic of vegetarianism. With me, a third university student and their teacher observed the lesson. This time the students seemed completely different as during their normal lessons with their teacher. They were extremely quiet while they were reading and completing written tasks on a handout. Afterwards, they were organised in random groups, boys and girls together. In those groups they had to discuss the advantages and disadvantages of being a vegetarian, based on the information on their handout. When I started the background music, they focused completely on the speaking task, and ignored the music. After the lesson, the university student remarked that he was astonished that I did not use classical music but rather popular music.

In the final lesson of the research project, the environment was again noisy and excited, because the students got back their results on a revision. However, they laughed a lot and the teacher made funny remarks and laughed with them. For the speaking task, students were organized randomly and they had to plan a trip for hypothetical exchange

students visiting Vienna. They should present their trip in the subsequent lesson and vote for the best trip, which would win a prize. The excitement from the beginning, however, did not result in increased participation or concentration on the task, because most of the students talked eagerly in German. However, they seemed to get used to the background music during the speaking tasks, because they ignored it as the day before, where the new student caught their whole attention.

8.5 Teacher interviews

In the first teacher interviews before the commencement of the research project, I asked them if they ever used the technique of background music for establishing a motivating classroom environment for speaking exercises. If not, I requested which other strategies they use instead. The teacher in the 6th grade answered that he never used background music in his teaching before, but he would consider this strategy as useful for the students, because he believes that they could hide behind the sound of music and the teacher would not be able to listen in on students' conversations as carefully as compared to no music conditions. In addition, he thinks that familiar and pleasurable music could be a motivation for the students and they might talk about the music before they start their speaking activity.

Other strategies and methods he uses to encourage student communication are the topic and key vocabulary as well as inspiring input material like videos or pictures. He always makes sure that they have the necessary vocabulary and phrases at hand to foster student communication. Furthermore, he often lets them talk in pairs, because then the focus is turned away from them and they feel more at ease to talk freely. He also said that he is careful correcting their mistakes in class. For him it is important not to interrupt them too often, because especially the shy and weaker students cannot cope with too much correction and would stop speaking. The only instance when he corrects students is if they make serious mistakes or if he knows that the student is confident enough to deal with his correction from time to time.

The 2nd teacher of the 5th grade classroom said that she has already used background music in her English classroom, but she used it during a writing activity instead of a speaking task. According to her previous experience, she is interested how the background music would affect her students during the speaking exercises, but she does

not have any clear expectations about the experiment. When I asked her how she motivates her class to talk if they are not willing to communicate she said that she could not really think about a situation where her students are completely silent. In case she notices that a student does not know what to say, she helps them by asking more specific questions. Also, she somehow tries to relax the atmosphere in class, but she could not give a precise strategy or example.

In the feedback interview with the 6th grade teacher, I asked him if he had the impression that the background music had an influence on the classroom atmosphere and how the students reacted to it. In his opinion, students' reactions showed clear discrepancies. While some students reacted with annoyed statements, others just noticed it briefly and continued as normal. On the whole, he had the impression that the classroom climate is relaxed and nobody is scared to talk. Then I asked him about the advantages and disadvantages of the method. He clearly stated that on the one hand the music could distract the students if they know the songs, and on the other hand, the music could be beneficial in the sense that the students could hide behind the sound. In a further question, concerning my first research question, I asked if he believed that the music aided students to start speaking and keep their conversation due to the prevention of silence. According to this question he had to admit that it is difficult to assess this hypothesis, and he cannot give a clear answer to that question. Moreover, he mentioned that his class might not reflect other students' reactions, as his group of learners is very small. However, he asserted that one boy, who plays in a band definitely enjoyed the music and he would not preclude that the background music had a positive impact on the other students. In fact, he considered using the methodology in a different class. Finally, he confirmed my concern that my personal presence in the classroom also affected students' reactions and they might have reacted differently if the music came from their own teacher, instead of an unknown person.

The final feedback of the 5th grade teacher revealed similar results. She remarked that the method was unusual at the beginning and after my first intervention, some of the boys mentioned that the music would be inconvenient. Apart from that, she could not observe any significant differences. Only some of the boys were distracted by the music and focused less on the topic of the lesson. However, she noticed a clear difference in the lesson taught by the university student. In that lesson the students completely

ignored the music and the atmosphere was created by the music was very comfortable. In particular, she stated that she was fond of the jazz music in the final session, because it made her feel like as if she were at Starbucks. When the research projected terminated, she noticed that she missed the background music in the following lessons. She also reported that some of the boys, who always commented their opinion in class, said that they do not miss the music, but they would rather play their own music.

9. Discussion of results

The primary objective of this study was firstly to examine if background music can facilitate and support students in their speaking exercises in the EFL classroom. It has been proposed that background music primarily has an influence on the classroom atmosphere, thereby enhancing students' mood and physiological arousal in order to improve concentration on the primary speaking task (arousal-mood hypothesis). Despite the beneficial prospects of background music, it has been argued that background music during cognitive tasks, such as speaking, could also constitute a distraction. This is due to limited cognitive capacities of the working memory (cognitive-capacity hypothesis). Thus, students' cognitive effort to fulfil a speaking task as well as their personal characteristics, such as introversion or extroversion, determine if they perceive certain background music as motivating or distracting. Therefore, the secondary aim of the study was to investigate, which type and characteristics of background music are appropriate for the specific context of a school classroom, with teenage participants and the task type of a speaking exercise in English.

In detail, the first research question intended to investigate if background music could aid students to commence their oral tasks and maintain their conversations, under the assumption that background music prevents the occurrence of a silent moment. This claim has been uttered in the study by Cunningham (2014: 185), who further elaborated that it would be easier for students to start a conversation in an environment similar to a coffee shop rather than the silence of a library. According to my observations and the data collected in the questionnaires and interviews, this assumption could not be confirmed. During my observations in both classes, students were extremely talkative and the issue of a strange silence, preventing students from speaking, did not occur. The questionnaires reveal that only four students in the 6th grade and two students in the 5th grade indicated that the background music facilitated the initiation of their

conversations. Moreover, the interviews with the teachers could not provide information substantiating or refuting this hypothesis.

The second research question asked if the induced arousal and mood by the background music is able to improve students' concentration on the speaking task. The claim that background music can induce an optimal level of arousal and mood for enhanced task performance has initially been mentioned in connection with the Mozart Effect and the arousal-mood hypothesis. This hypothesis explains that any preferred stimuli can boost the emotional arousal level to an optimum for the fulfilment of a certain task (Thompson, Schellenberg & Husain 2001: 251). This optimum state has been claimed to depend on the specific task requirements, the context of the situation and personality characteristics, reflected in the Wundt-curve. In addition, the Yerkes-Dodson law also corroborated that a state of under or over arousal can deteriorate the performance on a task. Moreover, even if one displays a perfect level of alertness, being neither too tired nor too excited, performance is also restricted within the limits of working memory capacity, illustrated in the cognitive-capacity hypothesis. Thus, background music can, on the one hand, positively affect arousal and mood, and on the other hand, it can interfere with cognitive processes. Therefore, a perfect balance between these two effects had to be found, in order to increase learners' concentration levels.

The estimation of the results concerning this research question, turned out to be extremely difficult, because only the teacher and I could observe students' arousal and concentration on the tasks according to their behaviour. Based on my observation notes, I could discern that none of the students has been disrupted to such extend that speaking was impossible. More importantly, the teachers' feedback and reactions during and after the intervention of background music did not indicate that concentration levels of students' were disturbed significantly. Though, the data from the questionnaires revealed that four out of twelve students in the 6th grade and two students in the other class had problems to concentrate on the tasks. Interestingly, one student comment revealed that concentration levels were initially deteriorated owing to the unusual method, but concentration improved after considerable time. Therefore, some students might need some time to become accustomed to the new method.

It is questionable if the other students who liked the method or rated it as neutral could concentrate better on the speaking exercises. It might be argued that the discrepancy of positive and negative reactions to the background music stem from differences in learner personality. For instance, Furnham and Alllass (1999: 36) argued that introverts react negatively to any changes in the acoustic environment, while extroverts performed significantly better with arousing background music. Thus, the results of students' feedback questionnaires can be explained according to different learner personalities, who require different arousal levels for optimal concentration. Another possible explanation for the varying reactions on concentration might be that background music interfered with cognitive processes according to the multi-resource model, since both tasks – speaking and listening to music – pose demands on the auditory attention pool (Wickens & Holland 2000: 104). Thus, different capacities of working memory could be due to varying abilities of students to concentrate on a speaking task. Moreover, the ability to focus attention on the voice of the interlocutor by fading out the surrounding auditory environment might not be equally mastered by all students (Wickens & Holland 2000: 104). The same issue could occur without the additional use of background music, because the volume of all students talking in pairs was sometimes extremely high. However, the additional background music might have demanded too much space of working memory capacity for some students reflected in the inability to concentrate. The same findings have been identified in previous studies where background music interfered with reading or writing tasks owing to limited mental capacities (Ransdell & Gilroy 2001: 146; Kämpfe, Sedlmeier & Renkewitz 2010: 437).

The third research question addressed learners' WTC in English and whether background music constitutes a useful tool to increase students' participation in speaking tasks. Although the concept of WTC in L2 depends on various aspects, this study focused primarily on the factors of classroom environment and FLCA, which are connected to the affective filter hypothesis. In the theoretical part it has been stated that learners' willingness to communicate in English primarily depends on their feeling of security and comfort in the classroom. Since it is claimed continuously in the literature that music has the ability to relieve stress and tension and enhance people's mood, it has been assumed that the background music has beneficial effects, particularly for students who feel inhibited to talk in English. As the FLCA results show, almost none of the learners feel anxious in the classroom, which is in line with Horwitz's (2016: 934)

estimation that the situation improved considerably according to learners' FLCA within the last thirty years. In addition, my observations and the teachers' impressions confirm that students are not scared to talk in their English classes. However, one student in the 6th grade scored significantly higher than all the other students, showing a moderate level of anxiety on the FLCAS. Interestingly, this student indicated that the background music was clearly helpful and positive for him or her, because of the easier start of conversation in the music condition. Thus, this incidence corroborates the findings by Cunningham (2014: 186) that background music is beneficial for reticent students.

Nevertheless, the limited time of speaking tasks during the lessons is indicative of the rather restricted influence of background music on the overall classroom environment. Hence, Cunningham's (2014: 180) claim that background music plays only a subliminal role in the creation of a comfortable classroom environment can be confirmed. Moreover, the same argument has been asserted by Dörnyei (2007: 726) and Riasati (2014: 117), who claim that the teacher plays the most important role in creating a comfortable classroom environment. Thus, the observed comfortable atmosphere in Cunningham's study (2014: 186), might be due to the prolonged speaking tasks, which take up more time in the university courses. In this respect, the comfortable classroom climate in this study is more probable to be ascribed to the supporting teacher behaviour observed during the lessons. Furthermore, impediments on students' WTC in L2 according to limited background knowledge or insufficient topic interest could be precluded, because of the results of the questionnaire and the well prepared speaking tasks that provided the students with sufficient ideas and vocabulary. The only exception could have occurred if students did not read the book in the 6th grade. Finally, the role of interlocutors did not seem to have a great influence on students' WTC, because the data in the questionnaires as well as the interviews did not reveal any hostilities between students that could have prevented them from speaking. Also, from my own observation I could not observe students complaining about their interlocutors, even if they were organized randomly. Though, the interview data from the 5th grade teacher showed that the background music not only had an impact on students, but also on the teachers. In fact, the teacher reported that she missed the music in the subsequent lessons after the research project, because the music evoked an atmosphere similar to a coffee shop. Therefore, it can be argued that the mood enhancing effect of background

music could have an indirect impact on students through the positive reactions on the part of the teacher.

Finally, the last research question intended to examine, which background music is appropriate to evoke the abovementioned impacts on learners. Against the initial assumption that familiar background music might be more motivating for learners during speaking tasks, it has been revealed that the known instrumental music pieces were most disrupting. An indication of the increased distraction was the humming and moving of students to beat. This impression was also confirmed by the comments of the teachers directly after the lessons as well as in the feedback interviews. However, the unknown songs of familiar genres seemed to be appropriate for this context, because students could ignore the background music in the electronic and jazz music. This phenomenon can be explained in terms of the mechanism of emotional contagion, which says that people recognize the voice-like structure in the instrumental music and start mirroring this voice either by humming or body movements (Juslin & Västfjäl 2008: 565). Moreover, the slightly more positive reactions of students in the questionnaire are an encouraging sign that the selection of background music was appropriate.

9.1 Limitations

The most limiting aspects in this study are clearly the small sample size and the reliability of results. These constraints are due to limited time and resources and to students' honesty and abilities to reflect on their own behaviour and feelings in class. For instance, many students in the 5th grade discussed questions on the first questionnaire with their neighbour instead of completing it individually. Thus, some students might have ticked certain answers according to peer pressure. Another limitation of the study was that students had to reflect only once on the method of background music after the whole study. Maybe the results would have been more distinct if students had to give feedback immediately after each session. Therefore, I presume that the impact of the last session had a greater influence on the final results. In addition, my personal presence in the classroom may have had an influence on students' reactions to the music, especially in the 5th grade. Thus, the background music seemed to be more distracting in the 5th grade, except for the one session where another university student taught them. In this session, the focus turned away from me and the

music and the class concentrated more on the new student. Finally, it is difficult to evaluate students' reactions and behaviour if one does not know them as well as the teacher. Even though I interviewed the teachers about their opinion on the background music, they could not provide detailed answers, because they were more concentrated on their teaching.

9.2 Pedagogic implications and future suggestions

The results in this study suggest that the use of background music as a subliminal tool for creating a positive classroom environment to foster students' WTC in L2 has considerable potential. Despite the negative reactions of a few students, the majority perceived the background music as beneficial. Given that a group of students always consists of different personalities, it is almost impossible to create an optimum condition for all of them. Wolfe (1983: 199), for instance, mentioned the same issue of varying reactions in a mixed group of learners. Moreover, the study by Cunningham (2014: 186), which served as inspiration for this study, also revealed that the majority of participants had a neutral position to the use of background music. Hence, teachers might consider using the method occasionally, especially if they have the impression that students feel inhibited to talk in the L2. Study results further indicate that students' WTC in L2 and the classroom atmosphere significantly depend on the teacher. Thus, the method of background music cannot account for all issues on students' speaking apprehension. Future studies clearly have to consider the effects of background music for adolescents, since most studies in the literature focus on older learners at university level. Moreover, future studies should also take context variables, such as task difficulty, personality and the setting, into account in order to draw more distinct conclusions on the effects of background music.

10. Conclusion

This study set out to investigate if the method of background music could encourage students' to participate in speaking activities according to music's ability to affect peoples' emotions and arousal. For this purpose, the first part of the thesis provided an overview of the historical development on the use of background music from music therapy in ancient Greece to educational settings, such as Suggestopedia and the Mozart Effect. After the historical retrospection it has been argued that mood management is of special importance for teenagers, which is also reflected in the results of the

questionnaire and an Austrian survey. In a third step, the current findings in the literature about background music's effect on emotion, arousal and cognition have been discussed to point at the delicate balance between music's potential to stimulate or distract attention on a cognitive task. Thus, in the subsequent literature review on background music's stimulating or distracting effects, the issue of generalizability of results occurred, because the dependent variables are numerous and partly uncontrollable. Additionally, the insufficiently researched mechanisms how music induces emotions constitutes a further obstacle in this research field. In the last section of the theoretical part it has been reasoned that students' speaking tasks could be optimized with background music on the basis of the concept of WTC in L2 and the implicated theory of the affective filter hypothesis and FLCA, which primarily depend on a comfortable classroom atmosphere.

The empirical research in two different upper secondary English classes revealed that background music did not yield any strong effects on students' behaviour during communication activities, neither in the positive nor negative direction. Possible reasons for the weak results are that the effects of background music could have been distorted by various other context variables and due to the limited time of the method during lessons. Moreover, the calculation of the FLCAS showed that most of the students were not afraid or anxious to talk in English, thus a stress alleviating effect of background music could not be observed. As a consequence of an already comfortable classroom environment, the initial assumption that background music could facilitate the start and maintenance of students' conversations by preventing a strange silence could not be confirmed in this study. However, the evaluation of the method by the students revealed that the overall majority enjoyed the background music during speaking exercises. On the account of the teachers, the method is perceived as a useful tool to create a comfortable classroom atmosphere, but the negative effects on concentration levels on a few students has to be considered as well. On the whole, the use of background music during oral communication tasks has a potential to increase students' speaking practise via its mood-enhancing effects, but the most influential factor remains the relationship between the teacher and students.

Finally, I want to finish my thesis with a quote that inspires further research on the use of background music in the EFL classroom:

“The value of having the right music in the classroom has been thoroughly researched, well documented and proven, and should be investigated by all those who teach.”
(Erskine, Ron 2002: 38)

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12. Appendices

Appendix 1: Information letter to students

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Wissenschaftliches Experiment zu "Hintergrundmusik bei Gesprächen im Englischunterricht"

Liebe Schülerin, lieber Schüler,

ich bin Englisch-Lehramtstudentin an der Universität Wien und plane zusammen mit Dir und deinem Englischlehrer(in) [Name], die so nett war mich bei diesem Projekt zu unterstützen, ein wissenschaftliches Experiment. Von Dienstag 28. März bis Donnerstag 4. Mai werde ich Euch während der Sprechübungen im Englischunterricht Hintergrundmusik vorspielen, um herauszufinden, ob diese Unterrichtsmethode für Euch und für meine zukünftigen SchülerInnen nützlich ist oder nicht. Dazu würde ich gerne Informationen von Dir mit Hilfe eines Fragebogens vor und nach dem Experiment erheben.

Wofür werden die Daten verwendet?

Die Informationen die ich mit den Fragebögen erhebe, verwende ich für die Erstellung meiner Diplomarbeit, die ich für den Abschluss meines Studiums Ende Juni 2017 benötige.

Wer hat Zugang zu den Daten?

Natürlich sind alle Daten die ich im Laufe des einen Monats erhebe vollkommen anonym, das heisst, dass dein Name nirgendwo aufscheinen wird, und Du brauchst Dir keine Sorgen zu machen, dass deine Englischlehrerin erfährt, was Du in den Fragebögen ausgefüllt hast. Lediglich meine Betreuungs-professorin Friederike Klippel und ich werden die Daten zur weiteren Bearbeitung analysieren.

Was bringt's?

Ich hoffe, dass die Teilnahme an dem Experiment für Dich eine tolle neue Erfahrung ist, die Dir das Sprechen im Englischunterricht erleichtert und mehr Freude bereitet.

Ich freue mich schon sehr auf die Zusammenarbeit mit Euch und ich hoffe sehr auf Deine Unterstützung. Ich bedanke mich schon jetzt für Deine Teilnahme und falls Du noch Fragen hast, kannst Du mich gerne kontaktieren.

Mit freundlichen Grüßen
Veronika Mojzes



Appendix 2: First student questionnaire



Hintergrundmusik bei Gesprächen im Englischunterricht

Identifikation: _____ (beliebige 4-stellige Zahl)

1) Hast du schon einmal Musik während dem Unterricht gehört?

☐ ja ☐ nein

2) Wenn ja, ...

... in welchem Unterrichtsfach?	... hast du die Musik als unterstützend und förderlich empfunden?		
	<input type="checkbox"/> ja	<input type="checkbox"/> nein	<input type="checkbox"/> vielleicht
	<input type="checkbox"/> ja	<input type="checkbox"/> nein	<input type="checkbox"/> vielleicht

Anmerkungen:

3) Welche Musik-Arten hörst du gerne?

☐ Pop ☐ Volksmusik ☐ andere: _____
☐ Rock ☐ House
☐ Elektro ☐ Heavy Metal
☐ Jazz ☐ Country
☐ Klassik ☐ HipHop/Rap

4) Zu welchen Gelegenheiten hörst du normalerweise Musik?

☐ beim Sport ☐ zu Hause im Alltag
☐ beim Lernen und Hausübungen machen ☐ mit Freunden in der Freizeit
☐ in Verkehrsmitteln wie Zug/Auto/Bus/etc. ☐ sonstige: _____
☐ bei festlichen Veranstaltungen

5) Wie wichtig würdest du Musik in deinem Leben einschätzen?

☐ sehr wichtig ☐ wichtig ☐ weder noch ☐ nicht so wichtig ☐ gar nicht wichtig

6) Würdest du deine mündlichen Kommunikationsfähigkeiten im Englischunterricht als gut einschätzen?

☐ ja, immer ☐ ja, normalerweise ☐ manchmal ☐ nein, normal nicht ☐ nein, niemals

7) Was hindert dich manchmal daran an Gesprächen im Englischunterricht teilzunehmen?

☐ gar nichts, ich spreche gerne Englisch im Englischunterricht

8) Was war deine letzte Englischnote? Note: _____

Bitte kreise bei den folgenden Aussagen die zutreffende Zahl von 1 bis von 5 ein.

1 = stimme völlig zu, 2 = stimme zu, 3 = weder noch, 4 = stimme nicht zu, 5 = stimme gar nicht zu

9)	Ich fühle mich selbstsicher, wenn ich im Englischunterricht spreche.	1	2	3	4	5
10)	Ich habe keine Angst im Englischunterricht Fehler zu machen.	1	2	3	4	5
11)	Ich spüre mein Herz rasen, wenn ich weiß, dass ich aufgerufen werde.	1	2	3	4	5
12)	Ich fühle mich selbstsicher vor den anderen MitschülerInnen Englisch zu sprechen.	1	2	3	4	5
13)	Ich habe Angst, dass der/die Englischlehrer(in) sofort jeden Fehler korrigiert.	1	2	3	4	5
14)	Es würde mir nichts ausmachen mehr Englischunterricht zu haben.	1	2	3	4	5
15)	Ich fühle mich überfordert von den Grammatikregeln die man zum Sprechen braucht.	1	2	3	4	5
16)	Ich möchte oft nicht in den Englischunterricht gehen.	1	2	3	4	5
17)	Ich fühle mich normalerweise nicht gestresst bei Englischtests.	1	2	3	4	5
18)	Ich fühle mich gestresst, wenn ich im Englischunterricht spreche.	1	2	3	4	5
19)	Ich gerate in Panik, wenn ich ohne Vorbereitung sprechen muss.	1	2	3	4	5
20)	Ich mache mir Sorgen in Englisch negativ beurteilt zu werden.	1	2	3	4	5
21)	Ich verstehe nicht, warum andere der Englischunterricht stresst und aufregt.	1	2	3	4	5
22)	Ich werde im Englischunterricht so nervös, dass ich Dinge vergesse die ich weiß.	1	2	3	4	5
23)	Ich verspüre keinen Druck mich für den Englischunterricht vorzubereiten.	1	2	3	4	5
24)	Ich schäme mich, mich freiwillig für Antworten zu melden.	1	2	3	4	5
25)	Auf meinem Weg zum Englischunterricht fühle ich mich entspannt.	1	2	3	4	5
26)	Es macht mir Angst, wenn ich nicht verstehe was der Englischlehrer sagt.	1	2	3	4	5
27)	Ich glaube ständig, dass die anderen besser Englisch sprechen als ich.	1	2	3	4	5
28)	Auch wenn ich mich für Englisch gut vorbereite, fühle ich mich ängstlich.	1	2	3	4	5
29)	Ich habe Angst, dass die anderen SchülerInnen über mich lachen wenn ich Englisch spreche.	1	2	3	4	5
30)	Ich habe Angst im Englischunterricht nicht mehr mithalten zu können, weil ich überfordert bin.	1	2	3	4	5
31)	Ich fühle mich im Englischunterricht mehr gestresst als in anderen Gegenständen.	1	2	3	4	5

Vielen Dank für deine Teilnahme!

Appendix 3: Second student questionnaire



Hintergrundmusik bei Gesprächen im Englischunterricht - 2

Identifikation: _____ (beliebige 4-stellige Zahl)

1) Wie hast du die Hintergrundmusik während der Sprechübungen empfunden?

☐ sehr hilfreich/ angenehm ☐ neutral, kein Unterschied zu vorher ☐ störend/ unangenehm

1a) Inwiefern war die Hintergrundmusik hilfreich/angenehm?

- ☐ der Lehrer(in) konnte mich nicht so gut hören
- ☐ die Stimmung war angenehmer und motivierender
- ☐ es war leichter mit dem Sprechen zu beginnen mit der Hintergrundmusik
- ☐ es kam keine unangenehme Stille auf

sonstige Anmerkungen: _____

1b) Inwiefern war die Hintergrundmusik störend/ unangenehm?

- ☐ zu laut
- ☐ zu schnell
- ☐ gefällt mir nicht
- ☐ ich konnte mich nicht konzentrieren

sonstige Anmerkungen: _____

2) Würdest du gerne weiterhin Hintergrundmusik im Englischunterricht während der Sprechübungen hören?

☐ ja ☐ nein ☐ weder noch

3) Würdest du Hintergrundmusik auch während anderer Übungen im Englischunterricht hören wollen?

☐ ja z.B. bei ☐ Leseübungen ☐ beim Schreiben ☐ bei Klassendiskussionen ☐ Gruppenarbeiten
 ☐ Grammatik und Vokabel Übungen ☐ Sonstige: _____
☐ nein

4) Hast du ein paar der Songs gekannt oder waren sie für dich unbekannt?

- ☐ ich habe welche erkannt
- ☐ es kamen mir welche bekannt vor
- ☐ sie waren mir völlig unbekannt
- ☐ ich kann mich nicht erinnern

5) Wie interessant findest du die Themen bei den Sprechübungen im Englischunterricht allgemein? (z.B. Umwelt, Buchbesprechung, etc.)

	1	2	3	4	5	6	7	8	9	10	
langweilig, völlig uninteressant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	sehr interessant und spannend

Vielen Dank für deine Teilnahme!

German abstract

Das Ziel dieser Diplomarbeit ist es herauszufinden, ob Hintergrundmusik den Schülern und Schülerinnen helfen kann bei Sprechübungen im Englischunterricht mehr mitzuarbeiten. Die grundlegende Prämisse hinter dieser Methode ist, dass sich Hintergrundmusik positiv auf die Atmosphäre in der Klasse auswirkt und dadurch die Schülerinnen und Schüler motivierter sind mit dem Sprechen zu beginnen und Gespräche aufrechtzuerhalten. Insbesondere sollte sich Hintergrundmusik auf ängstliche Schüler und Schülerinnen positiv auswirken, da Schweigsamkeit im Fremdsprachenunterricht hauptsächlich auf Nervosität und Angstgefühle zurückzuführen ist. Um die Wirksamkeit dieser unterstützenden Methode zu überprüfen, wurde ein empirisches Experiment in zwei Klassen einer AHS durchgeführt, bei dem Schülerfragebögen und Lehrerinterviews zum Einsatz kamen. Die Ergebnisse erwiesen sich einerseits als schwierig zu bewerten auf Grund der vielen beeinflussenden Faktoren, und andererseits als eher mäßig positiv, was womöglich durch die kurze Einflussdauer während des Unterrichts zu erklären ist.