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Master's thesis

Martin Hemza

The influence of listening to music on students' English pronunciation

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Supervisor: Mgr. Jana Kořínková, Ph.D.

Declaration

I hereby declare that I have worked on this master's thesis alone and that all sources I have been working with are listed within this thesis.

Moreover, I further declare that in the preparation of this work, I used modern AI tools, specifically ChatGPT for proofreading and structuring certain passages in the text, and Perplexity for searching relevant sources. I take full responsibility for the use of these AI tools.

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Introduction

In recent years, there has been a growing interest in integrating music into the language learning process due to its potential to significantly enhance students' pronunciation and overall linguistic skills (Kaswari, 2023). Music, widely recognized as a powerful connector in people's lives, offers a dynamic platform for phonetic exposure through its rhythmic and melodic elements (Katz, 2021). Even for individuals who do not speak a particular language, exposure to English songs of any genre can facilitate the retention of specific sound patterns and words (Katz, 2021). This aspect holds promise for enhancing the language learning experience.

English pronunciation contributes to effective communication and comprehension (Crystal, 2003). Within the global measurements, the prominence of English as a language itself has become an important part of communication between people of diverse cultures and values (Crystal, 2003).

It is important to realize and introduce the positive effects on language acquisition. Phonetics plays a critical role in language learning, particularly in developing accurate pronunciation skills, improving comprehension, and enhancing overall communication abilities. Understanding the different sounds of a language and how they are produced is essential for learners to accurately reproduce them when speaking (Ziyodaxon, 2023). This is especially important for English learners, as English is a fundamental goal for language learners worldwide, particularly for today's students (Ziyodaxon, 2023).

Many people are often unaware of the significant impact that listening to music can have on their English pronunciation in their everyday life. The repetition of listening to various music can lead to memorization of words and phrases and can enhance their spoken English abilities. This happens because the repetition and melody in music help people remember and recall certain words and phrases, which in turn improves their pronunciation and fluency over time (Chan, 2022). The theoretical part of this work will focus first and foremost on the general definition of phonetics and phonology as sciences. Understanding these sciences is one of the most fundamental pieces of knowledge that is necessary to have a better understanding of this work. Once these fields have been introduced, a more detailed explanation of the terms and categories related to phonetics and phonology will be provided. An important chapter in this work will also be "The International Phonetic Alphabet," also known as IPA, which will be crucial in evaluating results for the practical section of this thesis.

In the next chapter, we will explore music and its properties that can affect pronunciation. Every type of music is different, and it is important to understand which styles of music are suitable for improving pronunciation and which characteristics impact pronunciation the most, such as rhythm, accent, or song genre. Since this work involves the use of music with students to improve their pronunciation, an explanation of additional teaching methods that are suitable for using music during lessons will be presented. Teachers can use these methods in their own classes, as listening to music is generally known among students as a popular method.

Another chapter will cover what is called "acoustic phonetics." This is a field of phonetics that deals with the physical properties of speech, such as frequency, loudness, etc. This chapter will give us an idea of the basic definitions related to songs and their primary characteristics. Adding a chapter on this topic helps explain how music's sound elements affect pronunciation.

As the final chapter in this work, we will introduce common mistakes made by Czech students and Czechs in general when it comes to English pronunciation. This last chapter is especially important because the practical part of the work is carried out on Czech high school students. Identifying these mistakes can significantly enhance the evaluation of the practical part and offer valuable insights.

Concerning the practical part of the study, it will focus on how high school students pronounce song lyrics. The primary focus will be on examining pronunciation mistakes made by participants while reading song lyrics and assessing whether exposure to these songs over several weeks results in improvements in their pronunciation. There will also be two interviews, one before the actual reading of the lyrics to get to know the general skills that the given participant has. The second interview will take place after already mentioned several weeks period when the participants will be asked how often they listened to the given songs and learn their own opinion on whether listening to music can have a positive impact on pronunciation among students.

The work's conclusion will summarize the theoretical knowledge from the work and the results of the practical part.

I. THEORETICAL PART

1 The field of phonetics

Understanding phonetics and phonology is one of the most essential fields when it comes to the study of language acquisition and pronunciation. These two fields offer valuable information about the study of the sounds and sound patterns in English language. Teachers can use phonetics to analyze and improve pronunciation fluency and accuracy and at the same time analyze some mistakes in pronunciation they might face by themselves and their students. On the other hand, phonology can be useful in exploring English pronunciation and acquisition by the understanding of sound organization in the language.

Music listening has a significant impact on students' phonetic and phonological proficiency. It can be used as an area of exploration in research to improve their general pronunciation and teachers can use this method of teaching in their classes. In the following chapters, there will be a detailed description of every aspect that could influence high school students' overall pronunciation within the phonetics and phonology field.

Kusuma (1990) defines phonetics as the study of speech sounds, the production of it, transmission, and reception (Kusama, 1990). Generally speaking, phonetics is a field of study that focuses on human speech sounds (Nurhayati, 2018). Munro & Derwing (1995) also talks about a second language (L2) acquisition and competency, which are vital components for phonetics as a field itself. These components play a very important role when it comes to understanding certain speech sounds and articulation in the English language as well as comprehension (Munro & Derwing, 1995). Moreover, phonetics is also a field that develops more as time goes on. As new information emerges, new theories are formulated, and novel solutions to long-standing problems are devised, it is inevitable that the scientific framework will require adjustment to accommodate these developments (International Phonetic Association, 1999). This suggests that as new knowledge emerges and theories evolve, the scientific framework adapts, potentially offering deeper insights into how music affects pronunciation.

Overall, when it comes to context of researching the influence of listening to music on students' English pronunciation, phonetics offers an analysis and improvement in learners' phonological fluency and accuracy.

1.2 The international phonetic alphabet (IPA)

The International Phonetic Alphabet (IPA) is a fundamental component of the whole phonetic field. It serves as the main component in terms of correctly pronouncing English language. It can function as an essential tool for precise phonetic transcription and analysis. IPA generally provides a system of symbols. Each of these symbols represent a certain speech sound, which is found in all human languages, not just in English. *"Without a universal transcription system for phonetics and phonology, writing down the unfamiliar sounds of other languages presents an almost insuperable challenge."* (McMahon, 2002). With the help of IPA, teachers, who typically use broad transcription rather than narrow transcription due to its simplicity, can document even the most subtle variations in students' pronunciation patterns. The difference between broad and narrow transcription will be described later in this chapter.

As mentioned before, IPA serves as a system for representing speech sounds across all languages by using a system of symbols. These symbols provide teachers (as well as students) with a common set of symbols used for precise transcription and analysis of pronunciation. In the context of this work, IPA allows us to document the phonetic features of English. Ultimately, this will help to observe these pronunciation patterns in detail among students and across different musical genres to which students can be exposed.

The IPA is also a great tool for comparing how sounds are pronounced in different languages, including English. The general system of IPA helps us study English pronunciation in a standard way, but to do this right, we need to look at common sound principles, rules and patterns across languages. By doing this, we can also see how listening to music affects English pronunciation, helping students go beyond the sounds of their own language.

However, according to Melén (2010), even the most accurate phonetic transcription cannot fully instruct us on correct pronunciation. He emphasizes that the crucial aspect of the pronunciation learning process occurs in the classroom with a teacher. This is because certain letters, such as the letter "r" in Czech, differ significantly from their counterparts in English. Melén highlights the challenge of distinguishing these differences solely from written phonetic transcriptions. He suggests that instead of reading phonetic transcriptions as they appear on paper, learners should rely on the pronunciation guidance provided by their teachers (Melén, 2010).

Anderson (2018) identifies two different methods of transcription. Each of these methods offer a different level of precision in documenting speech sounds. One approach is focused on representing exact phonetic details, while the other could prioritize broader phonemic categories. These are called the broad and narrow transcription (Anderson, 2018).

1.2.1 Broad transcription

Broad transcription aims to provide a general and approximate understanding of how a native speaker would pronounce a word, sentence, or song. It includes enough information to learn the correct intonation for a new language, in this case English, but lacks concretization which leaves out subtle differences in pronunciation, such as place and manner of articulation for consonants and others. Broad transcriptions are often used in foreign language dictionaries and are more representative of all speakers of a language (Anderson, 2018).

1.2.2 Narrow transcription

On the other hand, narrow transcription is meant to represent the exact pronunciation of a speaker, including even the most subtle differences and variations. It includes a lot of phonetic detail while including more phonetic symbols to precisely differentiate these occurrences. Narrow transcriptions are often used by linguists to make detailed analysis of language variation and can help learners get exactly the right sound, but they may involve a larger number of symbols that can be unfamiliar to non-specialists (Anderson, 2018).

The following chart describes the difference between broad and narrow transcription:

Word	Broad Transcription	Narrow Transcription		
"pat"	/pæt/	[p ^h æt]		
"spin"	/spin/	[spɪŋ]		
"tea"	/ti:/	[t ^h i:]		
"cool"	/ku:1/	[k ^h u:ł]		
"man"	/mæn/	[ᡎæn]		

Table 1: Broad vs. narrow transcription (source: author).

1.3 Vowels

Delahunty and Garvey (2010) describe vowels as vital components of oral speech which can heavily influence our interaction and exchange of information. Vowels are basic sounds that make up the center of any syllable and are the primary way to differentiate one word from the other. Basic vowels are the following:

Phonetic Transcription	Example Word		
/i:/	Seat		
/1/	Sit		
/e/	Set		
/æ/	Cat		
/a:/	Car		
/ɒ/	Cot (British ENG)		
/oː/	Caught		
/ʊ/	Put		
/u:/	Food		
///	Cup		
/3:/	Bird		
/ə/	Sofa		

Table 2: Vowels (source: author).

In general, they are sounds that in combination make up the entirety of words in English (Delahunty and Garvey, 2010).

There are two ways of distinguishing vowels. The first way is to categorize them as front, central and back vowels (J.D.O'Connor, 1980). Front vowels are pronounced with the highest part of the tongue when it is positioned towards the front of the mouth such as the sounds /i:/ in the word "see". For central vowels, the tongue is positioned towards the center of the mouth as in / Λ / sound in the word "but" for example. The back vowels are those where the tongue is positioned towards the end of the mouth. Example of this could be the sound / σ :/ as in the word "saw" or /u:/ in "mood".

The other way of distinguishing vowels can be high, mid, or low. High vowels are with the tongue positioned the highest in the mouth. Examples include the sounds /i:/ as in "see" or /u:/ in "doom". Mid vowels are pronounced with the tongue not so high or not so low, as in the sound /e/ in "bed" or /əo/ in "go". Finally, low vowels are pronounced with tongue lowest in the mouth. Examples could be the sound /æ/ as in the word "cat". This /æ/ is known for Czech students to have a difficult pronunciation, since it does not exist in Czech phonology. (Melén, 2010) also mentions that in comparison with Czech, there is no basic opposites when it comes to short and long vowel. He calls this "the quantity of English vowel" which basically means the length of a certain vowel. The length of a vowel is phonemically transcribed in British transcription as a colon symbol /:/ and it can distinguish short or long vowels. The following table shows examples of long vowels:

Vowel Sound	Short Vowels	Long Vowels			
/I/	dig, pick, rip	/i:/ team, seem, breeze			
/e/	bed, shed, tell	/eɪ/ make, cake, stake			
/æ/	cap, bad, rat	/ɑː/ palm, car, spa			
///	sun, cub, mug	/a:/ father, heart, cart			
/ɒ/	dog, fog, job	/ɔ:/ board, floor, force			
/ʊ/	book, pull, hood	/uː/ food, moon, blue			
/ə/	sofa, about, upon	/3:/ bird, heard, nurse			

Table 3: Short vs. long vowels (source: author).



Distinguishing vowels can also be interpreted on a chart:

(Source: T. P. Szynalski: English vowel chart, Antimoon).

This chart also compares British and American English vowel sounds, illustrating their positions in the vowel space and mentions the differences in pronunciation. The vowel chart shows where sounds are made in the mouth based on the position of the tongue and its height. Vowels pronounced with rounded lips are marked with a black circle. Words in red represent vowels pronounced uniquely in British English, while those in blue are specific to American English.

For instance, "go" has variations where British English might use $/\partial u/$ while American English uses $/\partial u/$. Similarly, "law" is transcribed as $/\partial :/$ in British English, but American speakers often use $/\alpha:/$ or $/\partial/$. This chart helps to show the differences and similarities in how vowels are pronounced in both dialects.

1.4 Diphthongs

According to Ladefoged (2006) diphthongs are vowels that change in quality within a single syllable (Ladefoged, 2006). Just like for vowels, the following chart describes the difference between American and British diphthongs:



(Source: Ladefoged, 2006).

The diagrams show differences in how Americans and Brits pronounce diphthongs. In American English, diphthongs like /ai/ and /au/ start lower and have bigger movements toward higher positions. In British English, these movements are less pronounced. Moreover, the American /ei/ starts lower than the British /ei/, which begins closer to ϵ /. Also, the British /əʊ/ starts more centrally than the American /oʊ/. These differences highlight how vowel sounds change between American and British English.

1.5 Consonants

Consonants are sounds in speech mode made by restricting airflow through the vocal tract (Knight, 2012). Furthermore, Lorenz defines consonants as sounds that are characterized by an obstruction in the oral cavity and when turbulences occur in the airflow, it becomes an audible noise (Lorenz, 2013).

Consonants can be divided into multiple groups, based on the place of articulation (where the obstruction takes place), manner of articulation, (what type of obstruction it is). and voicing (voiced and unvoiced consonants). When it comes to the place of articulation, we can classify consonants as following:

- Bilabial consonants are formed by using both lips to articulate.
 - /p, b, m, w/
- Labiodental consonants are produced using the lower lip and upper teeth.

o /f, v/

- Dental consonants are the result of air pressure between the upper teeth and the tip of the tongue.
 - ο /θ, ð/
- Alveolar consonants are produced when the tongue, either the tip or the blade, touches the alveolar ridge or comes close to it.

○ /t, d, s, z, n, l/

• Postalveolar consonants are produced between the alveolar ridge and the front of the hard palate (roof).

• Palatal consonants are formed when the tongue touches or approaches the hard palate.

o /j/

- Velar consonants are produced by the pressure of the back of the tongue against the soft palate.
 - /k, g, ŋ/
- Glottal consonants are produced by glottis.
 - o /h/ (Knight, 2012).

Knight also mentions the importance of a special case when it comes to the phoneme /w/, which has no distinguishable place of articulation. She mentions that if we see other person saying the phoneme /w/, it suggests that the place of articulation is bilabial. However, thanks to modern technology, such as ultrasound, we can see how the tongue moves in the mouth. While observing this movement of the tongue, the air was constricted between the back of the tongue and the velum at the same degree. Knight says that /w/ is an example of double articulation since it is produced with equal constriction of airflow at two places in the vocal tract (Knight, 2012).

Regarding the manner of articulation, we can divide English consonants into these following groups:

• Plosives, which completely block the airflow.

○ /p, t, k, b, d, g/

• Fricatives that are narrowing and causes friction.

ο /f, v, θ, ð, s, z, ∫, ȝ, h/

• Nasals consonants escape of the air through the nose.

○ /m, n, ŋ/

• Affricates start as a stop and release as a fricative.

 \circ /tſ, dʒ/

• Approximants are defined as a closeness of articulators (without stop or friction).

o /l, r, j, w/ (Knight, 2012).

Lastly, consonants can be categorized based on whether they are produced with or without the vibration of the vocal cords:

• Voiced consonants are produced with vibration of the vocal cords.

- Examples: b, d, g, v, z, 3 (as in "measure"), d3 (as in "judge"), and m, n, ŋ, l, r, w, j
- Unvoiced consonants occur without the vibration of vocal cords.
 - Examples: p, t, k, f, s, ∫ (as in "shy"), t∫ (as in "chop"), θ (as in "think"), and h (Knight, 2012).

The classification and articulation of consonants are generally the same for both British and American English. The differences between these two are primarily in pronunciation, vocabulary, and sometimes grammar, but the basic phonetic rules and categories of consonants remain the same.

Just as with vowels, consonants can be clearly and neatly indicated in the following table, thanks to which learning the arrangement of consonants can become much easier:

	Bilabial	Labiodental	Dental	Alveolar	Alveopalatal	Palatal	Velar	Glottal
Stop	p b			t d			k g	2
Fricative		f v	θ ð	s z	∫ 3			h
Affricate					tʃ dʒ			
Nasal	m			n			ŋ	
Liquid				l, J				
Glide	(w)					j	(w)	

(Source: All Things Linguistic: How to remember the IPA consonant chart).

From the table we can distinguish different consonants and their respective description. However, there is one phoneme that was not mentioned and that is the glottal stop [?]. According to Garellek (2013) a full glottal stop typically occurs when there is a sudden and prolonged closure of the vocal cords in the larynx (Garellek, 2013).

It is also important to note here, that this table may not be representative of the sounds as they actually sound. Ladefoged suggests that in his publication: "For example, the symbol /t/ may represent a wide variety of sounds. In "tap" /tæp/ it represents a voiceless alveolar stop. But the /t/ in "eighth" /eit θ / may be made on the teeth, because of

the influence of the following voiceless dental fricative $/\theta/$." (Ladefoged, 2006). It is important to recognize these variations, as they highlight the complex relationship between phonetic symbols and their actual pronunciations. These variations are called alternations (Ladefoged, 2006).

2 Acoustic phonetics

Acoustic phonetics is a branch of phonetics that focuses on describing the different kinds of acoustic signals produced by the movement of the vocal organs during speech. It studies how the movements cause air molecules to move, creating sound waves that travel outwards and eventually reach the listener's ear. Acoustic phonetics involves analyzing these signals across different speakers, languages, and speaking conditions using tools like spectrograms and software for speech signal processing. This field combines insights from many fields such as engineering, linguistics, phonology, and cognitive science to determine and predict how vocal tract shapes and actions contribute to the acoustic properties of speech sounds (Hardcastle, 2012).

Additionally, Ladefoged (2006) focuses on acoustic phonetics in greater detail. According to him, this field of phonetics deals with how we can hear a certain sound based on its acoustic structure and how certain sounds can be confused with each other (Ladefoged, 2006). There are four terms that relate to this field of phonetics and that is pitch, frequency, loudness and intensity.

2.1 Pitch

When students listen to music, they become used to variations of more pitches, and it becomes quite easy for them to distinguish the highs and lows of a song's melody. *"The pitch of a sound is that auditory property that enables a listener to place it on a scale going from low to high, without considering its acoustic properties. In practice, when a speech sound goes up in frequency, it also goes up in pitch."* (Ladefoged, 2006).

Students can improve their pronunciation by listening to music in class. They can practice matching their voices to different pitches, and this helps them to pronounce words correctly. As they learn these pitch variations, their pronunciation will become more natural.

2.2 Frequency

Frequency, an essential concept in acoustic phonetics, refers to the number of complete repetitions or cycles of variations in air pressure occurring within a second. This acoustic property is measured in Hertz (Hz), where one Hz equals to one cycle per second. The frequency of a sound corresponds with the rate at which the vocal cords vibrate. For instance, if the vocal cords perform 220 complete openings and closings in one second, the resulting sound has a frequency of 220 Hz. Frequency, in this context, serves as a measurable physical attribute of sound waves, crucial for distinguishing different sounds based on their pitch. Higher frequencies correspond to higher pitches and vice versa (Ladefoged, 2006).

Since pronunciation involves getting the right pitch and tone, and frequency controls pitch, listening to music can help students get better at these skills. Music has a lot of different pitches, which can train students to hear and make small differences in pronunciation by copying the way their vocal cords should move. This shows how understanding frequency and pitch can help explain why music is good for improving pronunciation.

2.3 Loudness

Like pitch, when students listen to music, they notice its dynamics, such as if a song gets louder or softer. According to Ladefoged, there is a distinguished difference between loudness and intensity. "In general, the loudness of a sound depends on the size of the variations in air pressure that occur. Just as frequency is the acoustic measurement most directly corresponding to the pitch of a sound, so acoustic intensity is the appropriate measure corresponding to loudness." (Ladefoged, 2006).

On the other hand, intensity differs from loudness. "The intensity is proportional to the average size, or amplitude, or the variations in air pressure. It is usually measured in *decibels (abbreviated as dB). relative to the amplitude of some other sounds.* " (Ladefoged, 2006).

As Ladefoged (1975) mentions, both loudness and intensity are related to the perception of a sound. However, there is a distinction between the two aspects. Loudness is a subjective measure for each individual, reflecting their perception of the volume of a sound. Consequently, there will always be a discrepancy in how loud a sound is perceived by different individuals, rendering it subjective. Intensity is a physical measurement of a sound that indicates the energy carried by sound waves. As such, it is not subjective but rather provides an exact measurement of a sound.

2.4 Intensity

The intensity of sound is a measure directly linked to the variation in air pressure perceived as loudness. As previously mentioned, frequency measures the pitch of sound. Intensity is an acoustic parameter quantifying how loud a sound is. It's typically expressed in decibels (dB), a unit comparing the pressure of sound waves. The human ear can detect 1 dB as the smallest noticeable change in loudness, with an increase of approximately 5 dB making the sound appear up to twice as loud (Ladefoged, 2006).

2.5 Acoustic phonetics' impact on pronunciation

The chapter on acoustic phonetics provides insights into how students' exposure to music can influence their pronunciation skills. Pitch, frequency, loudness, and intensity, as discussed in this chapter, are fundamental parts in understanding how sounds are perceived and produced. When students listen to music, they are exposed to various pitches and melodies, which influence their ability to notice subtle differences in pronunciation.

Moreover, the concepts of frequency and intensity influence the role of music when it comes to pronunciation. Frequency, which is measured in Hertz (Hz), relates to the rate of vocal cord vibrations and controls pitch. Music, with its diverse range of pitches, trains students to recognize and replicate these variations, which influence their pronunciation skills. Ultimately, acoustic phonetics provides a foundation for understanding the physical properties of speech and helps in the analysis and description of speech sounds in terms of their physical properties.

3 The field of phonology

According to Delahunty and Garvey (2010) phonology studies how languages use sounds to differentiate words from one another (Delahunty and Garvey, 2010). They also focus on how important it is for a teacher of English to know about phonetics and phonology for multiple reasons:

- 1. The sound system is foundational and serves as the basis for the spelling system.
- 2. Educators may therefore be required to teach English pronunciation to non-native speakers.
- 3. Teaching poetry involves explaining elements such as rhyme, alliteration, assonance, and other sound-related techniques.
- 4. Understanding accents and language variations is essential, and educators should address them appropriately while providing positive attitudes towards language diversity among students.
- 5. Given the high level of literacy in the population, many individuals tend to perceive language primarily through its written form.
- 6. Phonetics and phonology can provide a more accurate understanding of the sound patterns of English (Delahunty and Gravey, 2010).

In the context of influence on students' pronunciation, Delahunty and Garvey (2010) highlight the importance of understanding phonology. This understanding is crucial for English teachers, especially when teaching pronunciation to non-native speakers, such as Czech high school students. Additionally, educators must handle accents and language variations with caution, which leads to positive attitudes toward language diversity.

3.1 Phoneme

A phoneme is an essential unit that serves as a basic unit of language, primarily expressing meaningful differences between words. According to Crystal (1991) a phoneme is *"The minimal unit in the sound system of language according to traditional phonological*"

theories. " (McMahon, 2002) supports this claim by saying that children learn certain phonemes by hearing and copying them. "*Children do not learn the rules of spoken language by explicit instruction, but rather by a combination of copying what they hear, and building up mental generalisations based on their experiences.*" (McMahon, 2002). This statement suggests that exposure to music or any audio reception may be beneficial in terms of development of phonetic awareness and pronunciation skills.

When it comes to other languages, many of them differ in how many phonemes they use. Crystal also talks about this: "Each language can be shown to operate with a relatively small number of phonemes; some languages have as few as 15 phonemes; others as many as 80." (Crystal, 2011).

Phonemes are crucial for language. They help with distinguishing words and conveying meaning. McMahon suggests exposure to music can improve pronunciation skills. Crystal notes differences in phoneme use across languages, highlighting linguistic diversity. Understanding phonemes has a big impact on our understanding of language structure.

3.2 Allophones

Knight (2012) describes allophones as different variations of a single phoneme. They can be considered as different pronunciations of the same phoneme. Identifying allophones can be done by substituting one sound for another within the same word. If this change does not completely alter the word's meaning, those two sounds can be considered as allophones of the same phoneme. Generally speaking, allophones are context-based variations that do not impact the overall meaning of a certain word (Knight, 2012).

For example, the phoneme [p'] can be considered from many different sides. Firstly, it can be considered as a voiceless bilabial plosive, secondly it could be a plosive with aspiration /p'/ or thirdly – a plosive with nasal plosion etc. Even though these are all different speech sounds, they are described as one phoneme, and the individuality of those speech sounds are positional variants of the same phoneme (Menhard, 1978).

3.3 Minimal pairs

Levis & Cortes (2008) define minimal pairs as two words that can be viewed differently based on a single phoneme. According to them, they are one of the most common forms to describe the categories of phonetics not just in English but any other language (Levis & Cortes, 2008). An example of a minimal pair could be the words "ship" and "sheep". They both tend to sound quite similar, but they differ in the phoneme /1/ and /i:/.

Minimal pairs can help learners in recognizing even the slightest sound distinctions crucial for accurate pronunciation. It is a skill that exposure to music may potentially enhance, contributing to improved pronunciation skills.

3.4 Linking

In everyday speech, a glottal stop, which was described in previous chapters, blends words together smoothly, like in "some of" /sʌm əv/ and "miss Sarah" /mɪs sɛːrə/. This linking can alter how the sounds are split into syllables, such as /sʌ.məv/, or make them longer when they're the same, like /mɪsːɛːrə/. Linking is when the end of one word connects to the start of the next without changing the sounds. However, there are other types of links too. For instance, in "hat band," the /t/ becomes a glottal stop, becoming /hæ?bænd/. And in "so awful," the linking [w] adds a sound, creating /səʊwə:fəl/ (Reed & Levis, 2015).

Understanding how speech sounds come together, like with glottal stops and linking, can be considered important when we look at the music influences students' pronunciation. When students listen to music, they pick up on different ways of making sounds and using language, even without them realizing it. For example, in music, words often flow smoothly together, just like they do in everyday speech. This exposure to connected speech in music could have an influence on how students talk. Furthermore, when music uses glottal stops to blend sounds together in lyrics, students might start noticing and using these features in their own speech.

3.5 Assimilation

Assimilation is a common result of regular, fluent speech and tends to occur to some degree in every language. However, the frequency of assimilation and the specific types of assimilation that can occur are variable from one language to another. It is a process when a sound changes to become more similar or identical to the sound that is right next to it (Marks, 2008).

Marks (2008) also mentions some other examples of assimilation:

/b/ changes to /p/ in the word "sub-plot"

/d/ changes to /t/ in the phrase "bad time"

/g/ changes to /k/ in the word "eggshell"

/z/ changes to /s/ in the phrase "as cold"

 $|\delta|$ changes to $|\theta|$ in the phrase "with salt"

 $/d_3$ / changes to $/t_1$ / in the word "large-scale" (Marks, 2008).

Assimilation affects how sounds change and interact in spoken language, which can impact pronunciation accuracy. By studying assimilation patterns, particularly in the connection to listening to music, researchers can gain insights into how these songs might influence pronunciation and phonetic processes. This understanding is essential for identifying potential improvements in pronunciation skills, which can result from listening to music.

3.6 Elision

According to Marks (2008) elision is the complete omission or disappearance of sounds in language. He describes that elision occurs in three different scenarios: elision of schwa, elision in clusters and elision in weak forms. When it comes to the weak vowel /ə/

(commonly known as schwa in the phonetic field)., Marks describes it as unstable and very commonly omitted:

- potato /pə'teitə υ / \rightarrow /p'teitə υ /
- police $/p \Rightarrow lis/ \rightarrow /p'lis/$
- connection $/k \vartheta' nek \ln / \rightarrow /k' nek \ln / (Marks, 2008).$

Regarding elision in clusters, Marks describes this occurance mainly when it comes to phonemes /t/ or /d/ in the middle of a cluster, which tends to have elision:

- a<u>sked</u> /skt/ /st/
- walked behind /ktb/ /kb/
- he<u>lped th</u>em /lptð/ /lpð/
- ne<u>xt w</u>eek /kstw/ /ksw/
- Christmas /stm/ /sm/ (Marks, 2008).

Finally, elision is common in many weak forms, including:

- "had / would" changes to /d/ that results in "I'd rather not"
- "will" changes to /l/ that results in "that'll do" (Marks, 2008).

Ultimately, according to Marks, assimilation and elision can work together while creating pronunciation that differs from what we could expect from the written form. As an example, he mentions the phrase "bed and breakfast":

- / bedəm brekfəst/ as in slow conversation
- / bedm brekfəs/ as in a faster conversation
- / bem brekfs/ as in a relaxed and fast-paced informal conversation (Marks, 2008).

English language and its elision also follow a certain pattern which has its own rules. Mao (2013) focused mainly on real life English and specifically the pronunciation aspect and found out that elision follows certain rules when it comes to pronunciation and is heavily influenced by many other factors which includes time, place and others. Most of the cases of elision are also unpredictable, variable and sometimes they lack a consistent form. However, the regular and systematic characteristics of elision suggest that there are

certain patterns to them. Ultimately, many aspects of elision still need to be explored more deeply and discussed in order to explain the complexity of elision as a whole (Mao, 2013).

4 Music and language

To highlight the importance of music, we could trace its influence back to infancy and the impact of sounds and music on infants. Papalia and Olds (1982) noticed that the perception of a sound starts at an early age, more precisely already mentioned infant era of our lives. They found out that infants can notice the direction of sound and can tell a difference between human voices or environmental sounds. Moreover, they are also able to focus on different aspects of sounds in general, which includes frequency, intensity, duration, or tempo (Chen-Hafteck, L., 1997). However, more studies have shown that infants might even be capable of distinguishing phonemes in language. This research was conducted by Eimas, Siqueland, Juszyk and Vigorito in 1971 and Eilers, Gavin and Wilson in 1979 and have shown that infants are capable of even more than just telling a basic difference between the direction of a sound or recognizing a human voice as Papalia and Olds (1982) researched (Chen-Hafteck, L., 1997).

Crystal (1987) categorized early vocalization patterns by analyzing the auditory inputs that children are exposed to during early childhood:

- 1. Basic biological noises (0 8 weeks).
- 2. Cooing and laughing (8 20 weeks).
- 3. Vocal play (20 30 weeks).
- 4. Babbling (25 50 weeks).
- 5. Melodic utterance (9 18 months) (Crystal, 1987).

On the other hand, Papoušek (1996) has a different view on these perceptions by Crystal (1987), specifically regarding the cooing, which is for him the earliest vocal sound that leads to the beginning of infant's development (Chen-Hafteck, L., 1997).

Furthermore, this shows that infants' early sound perception skills, influenced by music and other sounds, are important for language development. These early experiences help infants differentiate between different sounds and phonemes, which is important for good pronunciation. This background supports the idea that listening to music can improve students' pronunciation by enhancing their ability to hear and produce different sounds.

Music has always been a unifying element in society. Regardless of the genre or style, everyone can find their own musical preference. Even today, there are countless people who listen to a certain type of song without necessarily understanding the language. A prime example could be the highly popular genre of K-pop, which stands for Korean pop and is listened to globally and is one of the most popular genres overall (Linder, 2024). According to an article from The New York Times, in 2023 around 90% of K-pop listeners are not from Korea nor speak Korean (Yoon, 2023). This suggests that when it comes to music, the country of origin or the general understanding of the language is irrelevant.

By listening to music in an unfamiliar language, one can also develop and deepen their understanding of that language. The more we listen to music in a certain language, the more familiar we become with it, which in turn results in language learning. The same can be said for English. If we already have some command of the language, listening to music can only improve our pronunciation. However, it is important to note that not all genres and accents are suitable for improving English. This topic will be further discussed in the following chapters.

4.1 The impact of music on students

Mashayekh and Hashemi (2001) discuss the impact of music on students' overall effectiveness. If students have music education every week, it can lead to many benefits. One of the most important aspects that can be improved through listening to music is self-discipline (Mashayekh & Hashemi, 2001).

The psychological impact of music could also play a vital role in terms of overall brain activity when it comes to listening to music (Pantev et al. 1998). There was a study conducted by Drs. Christo Pantev, Larry Roberts and Almut Engelien. They examined brain scans of twenty trained musicians and thirteen non-musicians. All participants were in their twenties. During the study, both groups were exposed to piano notes. During this time, the response for the group of musicians was 25% stronger than non-musicians. On the other hand, when another study was conducted, instead of piano sounds, there were beeping

sounds. This time, the results were almost identical. In conclusion, this study showed that the influence of music could have a significant influence on brain development, therefore integrating music into the process of early childhood education could lead to a positive impact on children's growth and enhancing their overall psychological development (Pantev et al. 1998). This chapter relates to the thesis topic "The Influence of Listening to Music on Students' Pronunciation" by showing how music education can improve selfdiscipline, which is important for language learning. Additionally, research suggests that listening to music affects brain activity, indicating that integrating music into education could enhance overall psychological development, potentially benefiting pronunciation skills.

Showing how music education can improve self-discipline is important for language learning. Additionally, research suggests that listening to music affects brain activity, indicating that integrating music into education could enhance overall psychological development, potentially influencing and improving pronunciation skills.

4.2 Genres

Listening to diverse music genres can lead to different outcomes regarding pronunciation. It is generally known that styles such as hard metal are not as perfectly distinguishable in terms of pronunciation, as the singers of these songs typically use strong instrumentation and vocal range, which can very much affect word pronunciation and general understanding of the lyrics.

On the other hand, genres such as jazz or blues can lead to more positive results, as they emphasize expressiveness and they tend to be in a very slow tempo, which also helps with the correct pronunciation of words.

Another genre worth noting is hip-hop and rap, which stand out for their distinctive characteristics. Unlike many other genres, hip-hop and rap prioritize rapidity and efficiency in delivery. This unique style, characterized by fast-paced rhythms and intricate wordplay, has the potential to motivate listeners to enhance their articulation and pronunciation skills.

Furthermore, Yuliadi et al. (2018) conducted a study about the use of EDM (electronic dance music). on student's pronunciation. The research showed that the effect of EDM songs had a positive impact on improving language skills, mostly with expanding vocabulary. Even though EDM lyrics often contains potentially negative or inappropriate content, the participants were able to quickly interpret the meanings and many of them recited the lyrics to practice their English skills (Yuliadi et al., 2018).

4.3 Accents

In Czech schools, it is generally known that students are guided to learn British pronunciation, which has a significant impact on students' pronunciation and overall spoken expressions since they are taught to use British vocabulary and pronunciation. For some students, the British accent can be quite confusing, as most popular artists come from America and have American accent.

As mentioned previously, exposure to diverse music genres can aid students in comprehending various aspects of speech patterns, including fluency, and other linguistic factors. Additionally, by encountering different accents and dialects in English through music, students can gain insight into these linguistic variations. The integration of different accents can be a useful tool for strengthening pronunciation.

Regarding examples, Adele's music stands out for its distinctive British English pronunciation which serves as an example of this linguistic style. On the other hand, Taylor Swift, an American musician, provides notable instances of American pronunciation through her globally popular songs, which can be seen as an example of American English pronunciation.

Singers also tend to have more Americanized pronunciation style, especially British singers. Gibson (2015) mentions this phenomenon and his research showed that this accent neutralization or so called "pop music accent" is very common for British singers. Moreover, Krudthong (2019) mentions reason as to why singers tend to switch accents with the following explanations:

- 1. Social expectations and genre conventions there is a certain social expectation that social music should be in a more neutral accent, rather than a strong regional one.
- Linguistic and articulatory factors since singing includes vowels that are lengthy, enhanced airflow and other articulations compared to normal speech, neutralization can occur with a certain vowel as well as consonant features that distinguish accents.
- 3. Aesthetic motivations singers can tend to knowingly make their pronunciation different for their aesthetic, rather than reflecting their identity through the native accent they have (Krudthong, 2019).

Ultimately, thanks to various interpreters from different states and regions, we can show students the diversity of accents that integrate into English pronunciation. It can have significant implications in the context of English language teaching in Czech schools, and we can certainly say that it is a rich resource for students to understand the various forms of English.

4.4 Lyrics

In the realm of music, lyrics are generally known as the text which is sung along with the melody of a song. The vast majority of songs include lyrics, which can be a major improvement for songs and some people tend to focus primarily on the text of a certain song. It is also a potential that can help with correct pronunciation of English if we focus carefully on the lyrics.

One of the primary ways that can influence pronunciation is repetition. It is entirely natural that people play some songs more than once and as a result easily memorize the lyrics of certain songs. During this memorization, there may be repetition of words, which can positively influence pronunciation.

The lyrics of a song can also be a very important element for the emotional aspect of the listener (Susino & Schubert, 2019). If the listener frequently listens to happy and positive songs, it will have a better impact on their consciousness, and they will feel much happier. On the other hand, if the listener listens to gloomy and sad songs, their consciousness will be on the opposite side, and they will primarily feel sadness and sorrow (Susino & Schubert, 2019). In general, we can say that lyrics have a significant impact on the overall emotional aspect of listening to music.

Nevertheless, accent can also have some limitations. In instances where a singer originates from a region where an unclear or vague English dialect is spoken, understanding learned lyrics may prove challenging. Often, some people in such cases must learn pronunciation differently for accuracy. Furthermore, it is essential to consider the cultural and contextual differences of lyrics to ensure alignment with students' language learning objectives and desired linguistic models.

4.5 Rhythm

Rhythmic patterns of music are generally very memorable parts of listening to any song. If the rhythm of any song is catchy and memorable, students tend to remember the song more. English is recognized for its inherent rhythmic qualities. Each language has its own distinct rhythm, and mastering the rhythmic aspect of a foreign language's spoken form is often considered challenging. Rhythm contributes significantly to the overall expression and delivery of language by its native speakers (Brown, 1993).

Goodwin (1996) also describes rhythm in a more phonetic way. She explains that the rhythm in English speech is a product of the interplay between word and sentence stress, which completes the regular pattern of stressed and unstressed syllables, also with pauses. This rhythmic structure is like the flow of a musical phrase. Just as in music, English has a regular tempo, moving from one stressed syllable to the next, regardless of the number of unstressed syllables in between. This feature of the English language, which is designated as stress-timed rhythm, signifies that the duration of a spoken conversation is dependent on the number of stressed syllables, rather than the total number of syllables.
This contrasts with syllable-timed languages, such as Czech, where the length is determined by the total number of syllables (Goodwin, 1996).

Students can easily pick up on how words are spoken with a particular rhythm when listening to English songs. This makes it easier for them to pronounce them. The consistent beat and flow of a song is excellent for helping students understand the natural pace of speech. If they sing along to the song, students learn how to pronounce words in a fun way and get used to different intonations and sounds, making their pronunciation clearer over time.

5 Difficulties in pronunciation for Czech students

One of the most problematic pronunciation problems is the fact that Czechs have a unique phonetics compared to the English one. This can create many difficulties when transitioning to other language, like English. Many Czech students struggle with differences in intonation and correct articulation of tricky words, which can affect their pronunciation. In this chapter, there will be an overview of the most difficult linguistic challenges which Czech students might face while speaking English.

5.1 Pronunciation of sounds

Czech students sometimes have trouble pronouncing certain words because some sounds that exist in English simply do not exist in Czech. One of the most common mistakes is the pronunciation of $/\partial/$, which Czechs tend to pronounce as a regular /s/ or even /d/. Another common mistake is the pronunciation of /-ıŋ/, which Czechs often pronounce as /ıŋk/. Similarly, the pronunciation of the above-mentioned sound /æ/ is a common mistake.

Ambrozová (2014) explored in her work which specific sounds Czech speakers struggle with. From her observations, she found the following results:

- 1. Dental Fricatives: Czech students tend to mispronounce dental fricatives such as $/\theta$ / and $/\delta$ /, which are not present in the Czech language.
- 2. Aspirated Plosives: The aspirated plosives /p/, /t/, and /k/ are also difficult for Czech students, as they are not typically pronounced in the same way in Czech.
- 3. Bilabial Approximant: The bilabial approximant /w/ is another consonant that can cause difficulties, as it is not found in the Czech phonetic system.
- 4. Velar Nasal: The velar nasal /ŋ/ is also a challenging sound for Czech students, as it is not present in the Czech language.

5. Word Stress: Czech students often struggle with word stress in English, which can significantly affect the overall pronunciation (Ambrozová, 2014).

These difficulties are often connected to the influence of the Czech phonetic system on the acquisition of English pronunciation. To address these challenges, it is recommended that Czech students receive some sort of pronunciation practice and instruction, focusing on the specific areas where they tend to struggle.

5.2 Rhythm mistakes

(Skaličková, 1987) also mentions several mistakes made by Czech speakers but focuses primarily on rhythm, melody, and articulation. Regarding rhythm, the following mistakes are identified:

1. Czech speakers do not pay enough attention to differences in syllable length, both within words and across larger rhythmic units. For example, words like "mummy," "lucky," and "metal" demonstrate varying syllable lengths that affect pronunciation and rhythm.

2. In longer speech passages, there is often a failure to properly reduce vowel length while maintaining quality, which disrupts the quantitative and rhythmic characteristics of the whole segment. For instance, words like "considerable," "preferable," and "particularly" require careful attention to vowel length to maintain fluent speech rhythm.

3. In English, it is crucial to treat the span from one stressed syllable to the next as "one word" and not separate the individual components within that unit. Rhythm is one of the most distinctive features of English, and because it is ruled by the timing patterns of sounds, it's important to carefully maintain the length of vowels and consonants according to the rules that dictate their duration. For example, phrases like "some of us" and "seal it" should be pronounced with consistent timing and stress patterns for clear communication so it does not become a Czech word (samovaz or sílit). (Skaličková, 1987)

5.3 Melody mistakes

When it comes to melody, Skaličková (1987). focused mainly on stress placement, melody inconsistencies, and pitch intervals:

- 1. The basic principle for English and Czech melody is the same. It depends on where the so-called word stresses are placed. The melody peaks at the first stressed syllable and then drops through the various beats, which are segments between stresses, until the last stressed syllable. From there, there are three possible patterns for the remaining segment: a sharp drop, a sharp rise, or a slight rise.
- 2. The typical issues with Czech speakers' replication of English melody usually involve the unstressed syllables which occur at the beginning of a sentence. In English, these should remain at a relatively low pitch until the first stressed syllable, where the melody reaches its highest point.
- The pitch intervals between the lowest and highest syllables in English sentences tend to be limited among Czech speakers than they should be in English. This often results in their English speech sounding too monotonous (Skaličková, 1987).

5.4 Articulation mistakes

When it comes to articulation mistakes, Skaličková (1987) describes that in English, the tip of the tongue should not make contact with the bottom of the mouth during articulation. In contrast, in Czech, it tends to touch that area whenever it can. Furthermore, when the tip of the tongue is actively involved in forming a sound, it articulates with its edge in English. In contrast, in Czech, it does so with its flat surface (Skaličková, 1987).

As mentioned previously, in English, the tip of the tongue should not touch the bottom of the mouth during articulation. For example, in words like "thin" or "think," the tip of the tongue lightly touches the back of the upper front teeth to produce the $/\theta$ / sound.

For the /f/ sound, the articulation is similar in both English and Czech. In words like "fact" or "film" in English, and "fakt" (fact) or "film" (film) in Czech, the lower lip makes contact with the upper front teeth to produce the /f/ sound. The tongue does not play a significant role in the articulation of this sound, as it is primarily a labiodental fricative.

As for vowels, Czech people tend to struggle with pronouncing the English /a/ sound correctly. In Czech, they have a tendency to pronounce it as a mid-front rounded vowel, which is different from the open front unrounded vowel /a/ in English. In result of this, they usually end up saying the Czech open-mid $/\epsilon/$ sound instead of the correct English sound (Skarnitzl & Rumlová, 2019).

To get better at saying the English $/\alpha$ / sound, Czech speakers need to work on the right tongue and lip positions. Practicing these can help them produce the correct open front unrounded vowel $/\alpha$ / in English.

5.5 Linking mistakes

Czech students often face difficulties in linking, which is a crucial aspect of English pronunciation. This phenomenon is particularly challenging for Czech speakers because it does not occur in their native language (Emmer, 2014).

Emmer (2014) in his thesis provided a research and analysis of theoretical background on the key aspects of words in connected speech including assimilation, elision and linking. His main findings were about the production and reception problems, which Czech students struggle with when it comes to producing and understanding linking in English. This linking absence can make speech sound artificial and when students hear native speakers, it may pose difficulty in understanding of their pronunciation (Emmer, 2014).

5.6 Treacherous words

Hladký & Kudrnáčová (1996) mention that in the Czech language, there are socalled treacherous words. According to them, these words are defined as those that have the same or almost the same form in at least two languages but differ in meaning. They state that these are international words, mostly of classical language origin, that have undergone semantic differentiation over time. These words also include terms borrowed from English into Czech, either directly or through other languages (Hladký & Kudrnáčová, 1996).

Examples of such treacherous words illustrate the difficulties Czech speakers experience when switching between languages. For instance, the English word "fabric" pronounced /'fæbrik/ means a material or textile, whereas the Czech word "fabrik" refers to a factory or industrial plant. Similarly, the word "akt" (/ækt/) commonly refers to a legal document, such as the signing of a contract. However, in Czech, the word "akt" refers to an artistic or theatrical performance, often implying a live portrayal or enactment. Despite the identical spelling, these words hold different meanings and contexts in each language, presenting a challenge for Czech speakers in navigating the nuances of English vocabulary. These examples show the challenges Czech speakers face in distinguishing between words that appear similar across languages, but they differ in meanings. This means that Czechs must pay close attention to both the situation and how they say things when they are speaking two languages.

Conclusion of theoretical part

While examining the theoretical foundations of the influence of music on English pronunciation, this thesis introduced many key areas within the fields of phonetics, phonology and other areas which are closely connected to the main topic. The theoretical part laid the groundwork for understanding how and why music can impact language, more particularly pronunciation.

Firstly, the concept of phonetics and phonology were presented, which are essential fields for analyzing speech sounds. Phonetics, which deals with the physical production and acoustic properties of speech sounds provided a framework for understanding how sounds are articulated and heard. On the other hand, phonology focuses on how these sounds function within a particular language, in this case in English. By introducing these fields, insights were gained for the specific challenges that students face when acquiring accurate pronunciation in a second language.

One of the most crucial parts was the use of the International Phonetic Alphabet (IPA). It offers a system for representing speech sounds which makes it possible for speech sounds to be represented and documented. This tool allowed for an analysis of pronunciation improvements among students in the practical part. Based on that, even subtle changes in pronunciation can be detected and observed.

The integration of music into pronunciation as a tool for improvement is a unique perspective on language acquisition. Music and language share many characteristics, such as rhythm, melody and intonation, all of which are essential for effective communication.

Furthermore, the theoretical part reviewed some of the previous research studies that have investigated the role of music in language learning. These studies collectively suggest that music can improve a lot of aspects of language acquisition. The findings of these studies even more suggest that music can be used as a powerful tool to use in learning pronunciation.

Lastly, a chapter regarding the difficulties for Czech learners was introduced. It explored the challenges that students face while learning English pronunciation.

In conclusion, the theoretical part has established a foundation for understanding the potential benefits of including music in language learning, specifically pronunciation. By delving into these fields of phonetics, phonology etc. a comprehensive framework was built for the upcoming practical part of this thesis.

II. PRACTICAL PART

6 Basic parameters

The research for this thesis was designed as qualitative, and a semi-structured interview was chosen as the method for data collection. Additionally, this research involves a longitudinal case study, which will help to determine what mistakes high school students make when reading lyrics from songs, which will be introduced in the following chapters.

The research began after contacting a high school English teacher from Gymnázium Ostrava-Hrabůvka. Permission was granted to conduct the study within one of her classes, and a suitable day for the meeting was scheduled. The first part of the research consisted of a first semi-structured interview to determine the English level and their habits of listening to English music. Afterwards, there was a portion of the research where students would read the lyrics to three selected songs. The entire interview and lyric-reading session was recorded for further analysis. Upon reviewing the recordings, mistakes in pronunciation from each participant were identified. Finally, after reading the assigned lyrics, students will have two weeks to listen to the songs as much as possible.

The next meeting took place after the already mentioned two weeks period, during which another semi-structured interview and another case study will be conducted to determine whether the students' pronunciation improved after two weeks of listening to the songs. The total number of participants is 10, all of whom are high school students (specifically class 6B8), as these students learn English as their secondary language. The questions are designed to be open-ended, allowing participants to provide as much open response as possible, and the semi-structured interview format encourages them to speak more freely.

6.1 Research topic

The topic of this research is an analysis of pronunciation skills of high school students in relation to listening to song in English and reading lyrics in English. Research also explores the impact of a two-week listening exercise given by the researcher on

student's pronunciation skills and seeks to identify mistakes while reading lyrics to given songs. The whole research uses a combination of semi-structured interviews and case studies to gather qualitative data from a group of English learners of high school.

6.2 Research goal

The goal of this research is to examine the effect of listening to music on pronunciation skills of high school students. Specifically, the research aims to determine whether exposing high school students to English songs can improve their pronunciation. Additionally, it aims to identify common mistakes these students make while reading song lyrics.

6.3 Research questions and research problem

The questions from the first interview were formulated to determine the participants' proficiency in English, the methods they use for learning English, how often they listen to songs in English, along with a question on how often they watch movies in English, since this could affect the measurement results. However, before looking at the specific questions that will be asked during the semi-structured interview, two fundamental questions will be examined and asked that this research focuses on and aims to answer.

The research problem lies in finding an answer to these main research questions:

- 1. "How does listening to English music impact the pronunciation skills of high school students in Czechia learning English as a second language?"
- 2. "What are the significant differences in pronunciation of high school students in Czechia learning English as a second language who regularly listen to English music and those who do not?"

Regarding the first semi-structured interview with the students, the following questions were designed to find out their methods for learning English, their habits

concerning listening to music, how often they listen to music in English, how often they watch movies in English, and what genres and groups they listen to. The final question was meant to be open-ended, allowing students to share as much as possible about their experiences with listening to music in English. The questions are the following:

1. Can you tell me about your experience learning English? What methods or techniques have you found most effective?

2. How would you rate your current proficiency in English, on a scale from 1 to 10, with 10 being the highest? Why did you pick that number?

3. Could you describe your listening habits when it comes to music? How often do you listen to English songs? Why do you like to listen to English songs?

(Scale: [Never; 0-1h/week; 2-4h/week; 5-8h/week; more than 8 hours/week]).

4. How often do you watch movies or TV shows in English? Why do you watch them in English?

(Scale: [Never; 0-1h/week; 2-4h/week; 5-8h/week; more than 8 hours/week]).

5. What genres of music do you typically enjoy listening to (in English). and why? Do you have any favorite (English). artists or bands? If so, who are they and why do you enjoy their music?

6. Is there anything else you would like to add or share regarding your experience with English and music?

An important note to mention here is that the scale for questions 3 and 4 were used to determine the frequency of listening or watching English songs or movies. However, participants were not asked to put their habits of listening to music or watching movies on a scale, to avoid violating the principles of a semi-structured interview. This approach helped with understanding how much participants engage with English songs or English movies/TV shows without asking them directly how many hours they listen to music.

After this first interview, there was the reading of lyrics from selected songs and highlighting mistakes in participant's pronunciation. Afterwards, the participants will

receive a task to listen to given songs, which will be described in the next chapters, for the period of two weeks. After this two-week period of participants listening to selected songs, there was another semi-open interview, which investigated the frequency of their listening and their overall view on using music as a tool for improving pronunciation. The questions for the semi-structured interview were the following:

1. Since our last meeting, how frequently have you been listening to the selected songs? Have you been listening to music more than usual?

2. Do you believe that actively listening to these songs has had any impact on your pronunciation?

3. Can you identify any specific changes or improvements in your pronunciation since you started actively listening to the songs?

4. Have you ever knowingly tried to improve your English pronunciation through music? If yes, could you share your experience?

5. How do you feel about the process of using music as a method for improving pronunciation now that you've experienced it on your own?

6. Is there anything else you would like to share about your experience with this study or your thoughts on English language learning through music?

6.4 Research methods

The whole research was conducted using two different methods. The first one is a semi-structured interview, which is used for data collection, allowing the researcher to guide the discussion while giving participants the flexibility to express their thoughts (George, 2022). The interviews are used to collect information about the participant's English, listening habits and experiences with English-language music and movies. The second method is a longitudinal case study. According to Bryman (2008), case study research often includes a longitudinal aspect. This means studying the same phenomenon at different times to see how it changes over time (Bryman, 2008). In this case, the study will

be focused on ten individuals from the same educational background, which includes specific instances of how high school students interact with and learn from song lyrics. This method will provide an insight into their pronunciation skills over a two-week period, following intensive listening to selected songs by the researcher.

6.5 Ethical aspects of research

Ethical aspects are crucial when it comes to this type of research, since it ensures protection and overall respect of all participants. There are three main aspects, which cannot be left unnoticed.

6.5.1 Protection of identity

Participants of this whole study will remain anonymous. During this research, participants will be labeled as participant 1, participant 2 etc. (P1 or P2 for short). Anonymity is an important ethical consideration, which cannot be overlooked. Students at this high school might not be comfortable using their real names, which is why use this strategy.

6.5.2 Participant consent

Before the actual start of the entire research process, participants were informed that the interview would be recorded on an electronic device and were asked for verbal consent to process the data obtained based on the recording from the interview.

6.5.3 Voluntary participance

The participants were informed that if they feel uncomfortable either mentally or physically during the interview, they could stop at any time without any consequences if this situation happens.

6.6 Research sample

The research sample for this study consists of ten high school students from the class 6B8 at Gymnázium Ostrava-Hrabůvka. Since these students are actively involved in learning English language, it makes them suitable subjects for exploring the impact of listening to English-language music on language acquisition and pronunciation. Given their age and educational background, they provide a very good insight into the learning processes and potential challenges which high school students might face when it comes to pronunciation.

The participants were selected since they are a part of the school's English language programme and had expressed an interest in taking part in the study. Their diverse backgrounds and approaches to learning have a very positive impact on the qualitative data of this study, which can delve deeply into their experiences of English language music and pronunciation.

6.7 Songs used in research

The first song chosen for this research is called "Halo" by Beyoncé. The song features clear lyrics, steady rhythm, and a strong vocal performance, making it suitable for studying pronunciation and articulation. Beyoncé has an articulation, which is clear, and the lyrics are easy to understand, which provides an opportunity to analyze how listening to this song might impact student's pronunciation. Additionally, "Halo" has a simple yet very engaging melody, which could maintain student's interest. The slower tempo might also help students distinguish phrasing and pronunciation patterns. Overall, "Halo" is a suitable choice of pop song for this research.

The second song is called "Water Under the Bridge" by the popular British pop artist Adele. She is also known for her clear pronunciation and strong vocal performance. However, the biggest difference from the previous song is the accent. Beyoncé is an American, whereas Adele is British with a very strong British accent. "Water Under the Bridge" also has a steadier tempo and includes various linguistic patterns which could be used in different aspects of pronunciation research.

For the final song, "Good Things Fall Apart" by Illenium and Jon Bellion was chosen. Compared to the previous two songs, it includes a male voice for a change, which makes it the biggest difference compared to the other chosen songs. Another difference is that this is an EDM (Electronic Dance Music) song, which as was already mentioned in this thesis, helps with improving pronunciation according to Yuliadi et al. (2018). Including this song will be a good choice, especially in conjunction with other songs that were mentioned already to feature another clear pronunciation and more moderate pacing.

The lyrics for these songs, which were used and read by the students, can be found in the appendix at the end of this thesis.

6.8 Data processing method

For the semi-structured interviews, a method of creating clusters was chosen. This technique is generally used to categorize certain statements into groups, such as by distinguishing specific phenomena, locations and other criteria. These groups, which are called clusters, should be derived from shared elements, which have a very close similarity among the identified units. A common feature of a cluster could be overlapping themes, which can be identified through individual statements from all participants to find a segment related to a narrowly defined topic (Miovský, 2006).

The semi-structured interview is a compromise between a structured and an unstructured interview. In this type of interview, basic questions are predetermined, but additional questions may be asked during the process, depending on the respondent's answer (Gavora, 2010). Avoiding questions that could be answered with just a simple yes or no is also an important factor. Moreover, if there were a situation where the respondent spent a long time thinking about any question, assistance was prepared to help the respondent understand the question more easily, ensuring the smooth flow of the interview.

Regarding the practical part, where the longitudinal case study will be evaluated, a table of incorrectly pronounced words will be created. From these tables, the focus will be on the mistakes the participants made during the assessment by transcribing wrong pronunciation with the help of broad transcription. After evaluating, a second semi-structured interview will be conducted, along with a second text reading, to compare the words in which participants made pronunciation mistakes. This will help us determine if listening to music improved their pronunciation.

7 Analysis of the practical part

After the interview concluded, the gathered data was transcribed and analyzed. The previously mentioned cluster creation method was used for data analysis. However, before we proceed to the actual evaluation of the research, a description of the interview process will be presented in the following chapter.

7.1 Interview process

As noted in previous chapters, the semi-structured interview was conducted following contact with an English teacher from Gymnázium Ostrava-Hrabůvka, who assigned class 6B8 for participation. Upon arrival at the agreed-upon time, and at the beginning of the class, the teacher handed the floor to introduce the students to the interview process. After the students were informed about the general concept of the entire research, ten out of the twelve students present that day voluntarily agreed to help with the research. The interview itself was conducted in the teacher's office to avoid disrupting the class, and the students were called one by one into the office, where the entire interview took place. Before proceeding with the actual questions, the students were briefed on the ethical aspects of research (chapter 5.5). They were then asked whether they were willing and comfortable to record the interview on an electronic device, in this case, a mobile phone. Eight of the ten participants were comfortable with recording the interview. For the two participants who were not comfortable to be recorded, both were asked the same questions and read the text just like the participants who were being recorded. Moreover, their responses to the questions and their mistakes during the readings were written down on paper and later transcribed and analyzed. After the participants answered the questions and read the lyrics, the participants were given a piece of paper listing all the songs they needed to listen to. Additionally, more instructions were given on this paper, indicating that the research was related to pronunciation - something they had not known beforehand, so they would not overly focus on it. Lastly, this paper also informed them about another meeting which would take place in two weeks for a second interview. In the meantime,

they were tasked with listening to the assigned songs as much as possible. No unusual situations arose during the interview that would have required its termination.

7.2 Analysis of the research data

The research results will be presented in four parts, as follows:

- 1. Analysis of the questions from the first interview
- 2. Analysis of mispronounced words from reading the lyrics of the assigned songs
- 3. Analysis of the questions from the second interview

4. Analysis and comparison of mispronounced words from reading the lyrics of the assigned songs after two weeks of listening to them

This part involves the evaluation of the first interview using the cluster creation method:

7.2.1 Interview #1

Q1: Can you tell me about your experiences with learning English outside of school? What methods or techniques have you found to be most effective?



Figure no.1: Methods or techniques of learning English outside of school (source: author).

From the first question, we were supposed to find out in what ways participants come into contact with English outside of school. The answers were very diverse, with the majority of students agreeing primarily on social media as the main way they encounter English outside of school. Surprisingly, half of the participants also answered that they mainly watch videos on YouTube, which is their primary way of encountering English outside of school. For example, P3 said that they spend most of their time watching YouTubers, vlogs, etc. The third most common answer among students was tutoring. Four of the participants attended tutoring before starting high school to improve their overall English pronunciation and grammar. For instance, P7 mentioned that they still go to tutoring with their aunt. As for less common ways in which students learn English outside of school, reading in English was one of them. P6 said they read all books in English and are also a big fan of reading comics in English. P2 and P3 both agreed on an answer they found most effective, which was playing video games. Both participants said they have been playing games since childhood and definitely see video games as the primary way

they encounter and learn English outside of school, and in their opinion, video games have been the most beneficial method of learning English for them. Traveling was also mentioned by P4 and P7, with P4 having family abroad and P7 enjoying traveling abroad whenever they have the opportunity. An interesting point in this question is that only one participant, specifically P5, consciously mentioned that they listen to music and see it as the primary way they improve their English, as they focus a lot on song lyrics and the pronunciation of different accents.

Q2: How would you rate your current proficiency in English, on a scale from 1 to 10, with 10 being the highest? Why did you pick that number?

This question aimed to determine the level of confidence participants have in their own English skills. It sought to find out what they themselves believe they make mistakes in and in which areas they should improve. An interesting aspect of this question is that the majority of them took a considerable amount of time deciding on which scale to place their English proficiency. The responses to this question were as follows:



Figure no.2: Current proficiency in English (source: author).

For the second question, participants had no trouble answering and reflecting on their specific shortcomings in English. Most of them chose level seven as their English proficiency, but some participants lacked confidence and selected level six which can still be considered a good level of English. For instance, P2 mentioned being afraid to speak English but understands it perfectly, similar to P7, who, however, chose level seven as their English proficiency. Most other participants struggled either with grammar or vocabulary, which were predictable responses to this question. However, what is interesting are the responses from P9 and P6. P9 took a long time to ponder this question, and eventually, their answer was that they struggle with pronunciation. However, during the conversation, there was not a moment where the participant seemed to have any difficulty speaking. After personal matters were explained by P9 and their reluctance to record the entire conversation, the matters will stay anonymous for this entire research. P6's response was interesting in that, despite mentioning in the first question that they read books in English, they have trouble with informal phrases and need to improve in the formal aspect of the English language.

Q3: Could you describe your listening habits when it comes to music? How often do you listen to English songs? Why do you like to listen to English songs?



Figure no.3: Habits of listening to English music (source: author).

In this question, the majority of participants answered that they listen to music whenever possible. Only one participant, specifically P9, stated that they listen to music very rarely and only at home. They do not have as strong a connection to music as other participants. Regarding P1, they were the only one who were both able and willing to answer the last part of the question, which is why they enjoy listening to English music. All the other participants could not say why exactly they enjoy listening to English music, most of them said they simply enjoy it. In their case, it was the diversity of genres, as they enjoy changing the style and genres of music they listen to. However, the most interesting response here was from P8, as per calculation, they are able to listen to music up to 30 hours per week, which is an unimaginable number. However, we can see the biggest

difference, which is between P8 and P9, where P9 hardly listens to any English music, while P8 listens the most.

Q4: How often do you watch movies or TV shows in English? Why do you watch them in English?

This question aimed to determine whether participants watch movies or TV shows in English, as doing so can primarily influence their pronunciation. The results for this question were as follows:



Figure no.4: Watching movies or TV shows in English (source: author).

The diversity of responses to this question was significant. Most participants do not watch movies in English at all, compared to how often they listen to English music. If some watch movies in English very rarely, they watch them with Czech subtitles, such as P3. P7 mentioned that they watch a maximum of one movie per week. As for P9 and P5, there were minor differences between these participants. P9 watches movies in English less frequently than P5 and primarily does so to improve their English pronunciation. P5 does

not focus on this improvement but watches movies in English with English subtitles. Lastly, there are P1 and P6, who watch movies in English every day and only watch them in English. This question showed that watching movies definitely has an impact on each participant, but most of them have less experience with English movies or TV shows than with listening to English music. As mentioned earlier, this question served primarily as a comparison of how often participants listen to music and watch movies in English. From the results presented, we can say that P6 and P9 watch more movies in English than they listen to English music. The rest of the participants have more experience with English music.

Q5: What genres of music do you typically enjoy listening to (in English). and why? Do you have any favorite (English). artists or bands? If so, who are they and why do you enjoy their music?

This question was included here because in the theoretical part, we looked at how different genres of music can influence students' pronunciation. It is therefore important to find out which genres participants listen to, as this information can also be helpful in evaluating the results regarding the pronunciation of lyrics.



Figure no.5: Genres, artists & bands (source: author).

At first glance, it is evident from this figure that high school students predominantly listen to rap music. Travis Scott is listed as the most frequent artist, who is highly popular among these participants. Second on the list is Kanye West, mentioned by some, including P6, who, during the conversation, mentioned listening exclusively to his older songs. Participants chose highly popular rappers. The second most popular genre mentioned here was pop, which was certainly predictable as it is the most widespread music genre. However, P1 mentioned a more specific type of pop music, namely, indie pop. They included the music group TV Girl in this category. Among other genres mentioned was metal, responded to by P3 and others. P7 and P9 did not specify a particular music genre, stating they listen to everything. On the other hand, P7 mentioned having a preference for pop music.

Q6: Is there anything else you would like to add or share regarding your experience with English and music?

This question was asked openly so that participants could share as many of their experiences as possible regarding listening to music and English.



Figure no.6: Additional experiences regarding music and English (source: author).

The last question opened up the opportunity for participants to freely express their experiences. Three participants, P6, P9, and P10, had nothing to share, but the rest did. P1 mentioned that they listen to Korean pop, which was discussed in this work in the chapter on genres. This goes to show that language has no barriers when it comes to music, and even though P1 announced that they do not speak Korean, they still listen to K-pop because they can appreciate pop music from other countries. P2 mentioned that they often converse with their teacher in class and see it as the most effective method for learning English. They also mentioned that their teacher often plays songs, which helps them learn pronunciation. P3 often watches vlogs and YouTube videos and picked up their English primarily this way. An interesting point came from P4, P7, and P8, who, after some thought, responded to this question by actively listening to songs for their lyrics and improving their

pronunciation as a result, which is very positive as this research addresses to this issue. Finally, the last participant, P5, said that when they started high school, they began listening to music only in English and stated that as a result, they definitely improved their English, and overall, listening to English music had a positive impact on their pronunciation.

7.2.2 Mistakes in reading #1

The mistakes made by the participants during the reading of lyrics to three selected songs, as described in chapter 5.7, will now be examined. For each participant, a table will be created with the words they made mistakes in and the broad phonetic transcription of how they incorrectly pronounced that word. For selected participants, it is also important to mention that there will be additional comments regarding their pronunciation, as some of them repeatedly mispronounced certain words. At the end, there will be a brief summary of which words the participants most frequently made mistakes on.

Participant 1 (P1).:

1. Beyoncé – Halo

Mispronounced word	Phonetic transcription
Tumbling	/tʌmblɪŋk/
Doubt	/dspt/
Embrace	/embres/
Away	/eweɪ/
T_{-1} L_{1} A_{1} D_{1} H_{-1} L_{1} (z_{-1}) (z_{-1}) (z_{-1})	

Table 4: P1, reading 1 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Phonetic transcription
Bring	/brɪŋk/
Holding	/həʊldɪŋk/
Wilderness	/waɪldənəs/
Reckless	/rɪkləs/
Waiting	/weɪtɪŋk/
Thing	/0ink/

Table 5: P1, reading 2 (source: author).

3. Illenium, Jon Bellion – Good Things Fall Apart

Mispronounced word	Phonetic transcription
Drinking	/drɪnkɪŋk/
Fogged	/fpkt/
T 11 (D 1 1)	

Table 6:	P1, read	ling 3 ((source:	author)	
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Participant 2 (P2).:

1. Beyoncé – Halo

Mispronounced word	Phonetic transcription
Way	/veɪ/
Doubt	/dʌpt/
Angel	/ængl/
Fade	/feit/

Table 7: P2, reading 1 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Phonetic transcription
One	/vʌn/
T_{r} = 1 = 8, D2 = r = $\frac{1}{2}$ (r = r = $\frac{1}{2}$ (r = r = $\frac{1}{2}$ (r = r = $\frac{1}{2}$)	

Table 8: P2, reading 2 (source: author).

3. Illenium, Jon Bellion – Good Things Fall Apart

Mispronounced word	Phonetic transcription
Fogged	/fpkt/
$T_{ab} = 0$, $D_{ab} = d_{ab} = 2$ (second on such as)	

Table 9: P2, reading 3 (source: author).

This participant repeatedly kept making mistakes by using the /v/ sound instead of the /w/ sound. For example, when reading the word "one," the participant said /vAn/. This made their pronunciation hard to understand and showed how tricky it can be to get the sounds right when speaking. Mistakes like this highlight the difficulty some people have with pronunciation.

Participant 3 (P3).:

1. Beyoncé – Halo

Mispronounced word	Phonetic transcription
Tumbling	/trʌmblɪŋ/
Doubt	/dʌpt/
Angel	/ængl/
Fade	/feɪt/

Table 10: P3, reading 1 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Phonetic transcription
Wilderness	/waɪldənəs/
Table 11: P3, reading 2 (source: author).	

Participant 4 (P4).:

1. Beyoncé – Halo

Mispronounced word	Phonetic transcription
Doubt	/dʌpt/
Awakened	/əˈweɪkəned/
Fade	/feɪt/

Table 12: P4, reading 1 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Phonetic transcription
Wilderness	/waɪldənəs/
Table 13: PA reading 2 (source: author)	

Table 13: P4, reading 2 (source: author).

3. Illenium, Jon Bellion – Good Things Fall Apart

Mispronounced word	Phonetic transcription
Fogged	/fpkt/
Table 14: P4, reading 3 (source: author).	

Participant 5 (P5).:

2. Adele – Water Under the Bridge

Mispronounced word	Phonetic transcription
Wilderness	/waɪldənəs/
Table 15: P5, reading 1 (source: author).	

Participant 5 pronounced almost everything correctly except for one recurring mistake. Every time they encountered the word "the", they pronounced it as /ði:/. Despite this consistent error, their overall pronunciation was clear and accurate. This small mistake, however, stood out because it occurred every time, drawing attention to the importance of even the smallest details in speech. It demonstrated how a single mispronunciation can be noticeable, even when the rest of the speech is flawless.

Participant 6 (P6).:

1. Beyoncé – Halo

Mispronounced word	Phonetic transcription
Embrace	/embr1s/
$T 11 16 D6 1' 1 (\dots 1)$	

Table 16: P6, reading 1 (source: author).

Participant 7 (P7).:

1. Beyoncé – Halo

Mispronounced word	Phonetic transcription
Tumbling	/trʌmblɪŋ/
Put	/p_{\t/
Doubt	/dʌpt/
Awakened	/əˈweɪkɪd/
Embrace	/em 'bres/

Table 17: P7, reading 1 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Phonetic transcription
Bring	/brink/
Through	/truː/
Wilderness	/waildnis/
Reckless	/rɪkləs/

Table 18: P7, reading 2 (source: author).

3. Illenium, Jon Bellion – Good Things Fall Apart

Mispronounced word	Phonetic transcription
Head	/hi:d/
Dramatic	/drʌmʌtɪk/
Fogged	/fpkt/

Table 19: P7, reading 3 (source: author).

This participant made the most mistakes with pronunciation. They often pronounced words ending in -ng as if they ended in -nk. This made their speech harder to understand. Their mistakes show how tricky it can be to get certain sounds right and how important it is to practice pronunciation.

Participant 8 (P8).:

1. Adele – Water Under the Bridge

Mispronounced word	Phonetic transcription
Wilderness	/waɪldənəs/
$\frac{T}{T} \frac{11}{20} \frac{20}{100} \frac{11}{100} \frac{1}{100} \frac{1}$	

Table 20: P8, reading 1 (source: author).

Participant 9 (P9).:

2. Adele – Water Under the Bridge

Mispronounced word	Phonetic transcription
Wilderness	/waɪldənəs/
T_{-1} L_{1} D_{0} Z_{1} L_{1} D_{0} Z_{1} L_{1} L_{1} Z_{1} L_{1} Z_{1} L_{1} $L_{$	

Table 21: P9, reading 1 (source: author).

3. Illenium, Jon Bellion – Good Things Fall Apart

Mispronounced word	Phonetic transcription
Fogged	/fpkt/
Table 22: P9, reading 2 (source: author).	

Participant 9 had problems with their voice due to personal reasons. Although their speech was still understandable, they were less secure in their pronunciation. This lack of confidence highlighted how personal factors can affect one's ease and comfort in speaking clearly.

Participant 10 (P10).:

1. Beyoncé - Halo

Mispronounced word	Phonetic transcription
Embrace	/embres/
Table 23: P10, reading 1 (source: author).	

2. Adele – Water Under the Bridge

Mispronounced word	Phonetic transcription
Wilderness	/waɪldənəs/

Table 24: P10, reading 2 (source: author).

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One of the frequent issues was with the pronunciation of words ending in -ng, where many participants instead said -nk. This mistake was noticeable in words like "tumbling," which was pronounced as /tʌmblɪnk/.

Certain specific words, such as "wilderness" and "doubt," made it difficult for multiple participants, who often pronounced them incorrectly. Despite all the efforts made by some participants, others demonstrated generally accurate pronunciation, with occasional minor errors, such as repeatedly pronouncing "the" as "thee." These results highlight how mastering pronunciation can be complex, affected by individual speech habits, language intricacies, and personal aspects.

7.2.3 Interview #2

The second interview was conducted after two weeks, during which the participants were tasked with listening to the assigned songs as frequently as possible.

Q1: Since our last meeting, how frequently have you been listening to the selected songs? Have you been listening to music more than usual?



Figure no.7: Frequency of listening to selected songs and listening habits.

The first question of the second interview was asked to determine how often the participants listened to the assigned songs. From the figure, it is evident that P5 listened to the assigned songs most frequently, at least once every day. The rest of the participants varied greatly in their responses, such as P6, who listened to the assigned songs intensively at the beginning after being assigned the songs, and then listened to them less. This question also aimed to find out whether the participants listened to music more than usual. The vast majority, however, responded that they listened to music the same amount. Only P10 answered that they listened to music more than usual and listened to the assigned songs three times a week. None of the participants answered that they did not listen to the assigned songs. All ten participants listened to the assigned music as often as they could, and in their free time. P5 mentioned that they also watched the lyrics to the assigned songs to focus as much as possible on the pronunciation of certain words they had problems with.

Q2: Do you believe that actively listening to these songs has had any impact on your pronunciation?



Figure no.8: Impact of active listening on pronunciation

Most participants responded to this question unequivocally, stating that they feel their English pronunciation has improved due to actively listening to the music and focusing on the lyrics. P1, P4, and P5 said that their pronunciation has improved since they started listening to the assigned songs. Four participants, specifically P6 to P9, were unsure whether their pronunciation had improved, which is understandable since they likely did not try to pronounce the assigned words out loud, but rather only in their heads. For example, P6 mentioned that they did not focus on pronunciation at all, as the participants had no idea that the entire study was about improving pronunciation through listening to music. As for P7 to P9, these participants initially had a hard time answering this question, so their final response was that they were unsure. The answer to this question was also predictable, as mentioned, because the participants likely did not pronounce the assigned lyrics out loud. Only one participant, specifically P10, answered that they do not think their pronunciation.

Q3: Can you identify any specific changes or improvements in your pronunciation since you started actively listening to the songs?



Figure no.9: Specific changes and improvements in pronunciation

This question followed up on the previous one, asking participants to reflect on specific changes in their overall English pronunciation. P1 and P4 said that their pronunciation had generally improved significantly since they started listening to the assigned songs. Most participants stated that their vocabulary had improved, particularly with certain problematic words mentioned after the initial reading of the assigned lyrics. P7 replied that they had memorized the lyrics of all three songs and, as a result, believed their pronunciation had improved considerably. Like the previous question, three participants did not have an answer to this question, as it was a follow-up to the previous one.

Q4: Have you ever knowingly tried to improve your English pronunciation through music? If yes, could you share your experience?


Figure no.10: Experience with music as a tool for improving pronunciation.

The vast majority of participants had never consciously tried to improve their pronunciation through listening to music, although a few had follow-up responses, even if their answer to this question was negative. P6 stated that they do not consider music something to focus on, but rather see it as "background noise," meaning it should be listened to while doing other activities. A positive response came from P9, who said they would start using this method more to improve their pronunciation. Regarding watching movies, P8 and P10 responded that they used this method more for improving their pronunciation than listening to music. Two participants, specifically P1 and P5, replied that they sing in English. P1 sings recreationally at home, and P5 sings in a choir specifically in English. The rest of the participants responded that they either listened to rap to improve their fluency (specifically P3), and P4 believes that their pronunciation has improved, although unconsciously, when they randomly listen to music.

Q5: How do you feel about the process of using music as a method for improving pronunciation now that you've experienced it on your own?



Figure no.11: Personal feelings about using songs to improve pronunciation.

This question aimed to understand the participants' subjective feelings about using this method to improve pronunciation. Except for two participants, everyone said they found this method effective and would definitely use it. P1 mentioned that children should be exposed to music from an early age to improve their pronunciation in the future. The importance of repetitiveness was also highlighted by P2. The first interview revealed that most participants prefer listening to rap, and therefore P3 would choose different genres and songs to make this method more effective. P9 was visibly excited about this method and said they would definitely focus on the lyrics of the songs they listen to. The two participants who preferred another method agreed in their response, stating that they would rather watch movies to improve their pronunciation than listen to music. Q6: Is there anything else you would like to share about your experience with this study or your thoughts on English language learning through music?



Figure no.12: Additional thoughts about improving pronunciation using music.

The final question asked participants if they had any additional thoughts regarding the entire research. The predominant response was that they had nothing further to share, but some expressed additional thoughts. P2's opinion was that everyone naturally enjoys music, seeing this method as highly positive and effective. Similarly, P3 views music as a significant mood booster whenever feeling down, considering this method far superior to learning pronunciation through traditional methods. P4, akin to P3 in the previous question, would choose a different music style. P9, like in the previous question, mentioned that they would focus more on song lyrics after this experience.

7.2.4 Mistakes in reading #2

After the second interview, there was a second reading of the same lyrics that were assigned for reading in the first interview after the first set of questions. Now, in this pronunciation evaluation, a new column will be added where the words will be phonetically written as pronounced by the participants, making it easier to identify the difference between the first and second readings. Additionally, if the participant's pronunciation got better, the word "improved" will be added. The results from this second reading were as follows:

Participant 1 (P1).:

1. Beyoncé – Halo

Mispronounced word	Reading #1	Reading #2
Tumbling	/tʌmblɪŋk/	/tʌmblɪŋ/ - improved
Doubt	/dʌpt/	/dspt/
Embrace	/embres/	/ <i>Imbres/ - moderately</i>
		improved
Away	/eweɪ/	/əweɪ/ - improved

Table 25: P1, reading 4 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Reading #1	Reading #2
Bring	/brink/	/brɪŋ/ - improved
Holding	/həʊldɪŋk/	/həʊldɪŋ/ - improved
Wilderness	/waɪldənəs/	/waɪldənəs/
Reckless	/rɪkləs/	/rɛkləs/ - improved
Waiting	/weɪtɪŋk/	/weitiŋ/ - improved
Thing	/	/Ө1ŋ/ - improved

Table 26: P1, reading 5 (source: author).

3. Illenium, Jon Bellion – Good Things Fall Apart

Mispronounced word	Reading #1	Reading #2
Drinking	/dr1ŋk1ŋk/	/driŋkiŋ/ - improved
Fogged	/fpkt/	/fpkt/

Table 27: P1, reading 6 (source: author).

Participant 2 (P2).:

1. Beyoncé – Halo

Mispronounced word	Reading #1	Reading #2
Way	/veɪ/	/vei/
Doubt	/dʌpt/	/dspt/
Angel	/ængl/	/eɪndʒl/ - improved
Fade	/feɪt/	/feit/

Table 28: P2, reading 4 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Reading #1	Reading #2
One	/vʌn/	/wʌn/ - improved

Table 29: P2, reading 5 (source: author).

3. Illenium, Jon Bellion – Good Things Fall Apart

Mispronounced word	Reading #1	Reading #2
Fogged	/fpkt/	/fpkt/
Table 20, D2 mading 6 (asymptotic author)		

Table 30: P2, reading 6 (source: author).

As mentioned previously, this participant repeatedly kept making mistakes by using the /v/ sound instead of the /w/ sound. For the word "one", this participant showed improvement.

Participant 3 (P3).:

1. Beyoncé – Halo

Mispronounced word	Reading #1	Reading #2
Tumbling	/trʌmblɪŋ/	/tʌmblɪŋ/ - improved
Doubt	/dʌpt/	/dʌpt/
Angel	/ængl/	/ængl/
Fade	/feɪt/	/feit/

Table 31: P3, reading 3 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Reading #1	Reading #2
Wilderness	/waɪldənəs/	/waɪldənəs/
TT 11 /		1

Table 32: P3, reading 4 (source: author).

Participant 4 (P4).:

1. Beyoncé – Halo

Mispronounced word	Reading #1	Reading #2
Doubt	/dʌpt/	/dspt/
Awakened	/əˈweɪkəned/	/əˈweɪkəned/
Fade	/feɪt/	/feɪt/

Table 33: P4, reading 4 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Reading #1	Reading #2
Wilderness	/waɪldənəs/	/waɪldənəs/
Table 34: PA reading 5 (source: author)		

Table 34: P4, reading 5 (source: author).

3. Illenium, Jon Bellion – Good Things Fall Apart

Mispronounced word	Reading #1	Reading #2
Fogged	/fpkt/	/fpgd/ - improved

Table 35: P4, reading 6 (source: author).

Participant 5 (P5).:

2. Adele – Water Under the Bridge

Mispronounced word	Reading #1	Reading #2
Wilderness	/waɪldənəs/	/wɪldənəs/ - improved
Table 36: P5, reading 2 (source: author).		

Participant 6 (P6).:

1. Beyoncé – Halo

Mispronounced word	Reading #1	Reading #2
Embrace	/embr1s/	/embr1s/

Table 37: P6, reading 2 (source: author).

Participant 7 (P7).:

1. Beyoncé – Halo

Mispronounced word	Reading #1	Reading #2
Tumbling	/trʌmblɪŋ/	/trʌmblɪŋ/
Put	/pʌt/	/pat/
Doubt	/dʌpt/	/daot/ - improved
Awakened	/əˈweɪkɪd/	/əˈweɪkd/
Embrace	/em 'bres/	/em 'bres/

Table 38: P7, reading 4 (source: author).

2. Adele – Water Under the Bridge

Mispronounced word	Reading #1	Reading #2
Bring	/brink/	/brink/
Through	/tru:/	/tru:/
Wilderness	/waɪldnɪs/	/waildnis/
Reckless	/rɪkləs/	/rɪkləs/
$T_{able} = 20, D7, use dive 5 (asymptote such as)$		

Table 39: P7, reading 5 (source: author).

3. Illenium, Jon Bellion – Good Things Fall Apart

Reading #1	Reading #2
/hi:d/	/hɛd/ - improved
/drʌmʌtɪk/	/drʌmʌtɪk/
/fpkt/	/fpkt/
	Reading #1 /hi:d/ /drʌmʌtɪk/ /fɒkt/

Table 40: P7, reading 6 (source: author).

Participant 8 (P8).:

2. Adele – Water Under the Bridge

Mispronounced word	Reading #1	Reading #2
Wilderness	/waɪldənəs/	/waɪldənəs/
Table 11, DQ magding 2 (asymptotic such an)		

Table 41: P8, reading 2 (source: author).

Participant 9 (P9).:

2. Adele – Water Under the Bridge

Mispronounced word	Reading #1	Reading #2
Wilderness	/waɪldənəs/	/wɪldənəs/ - improved
Table 42: P9, reading 3 (source: author).		

3. Illenium, Jon Bellion – Good Things Fall Apart

Mispronounced word	Reading #1	Reading #2
Fogged	/fpkt/	/fpgd/ - improved

Table 43: P9, reading 4 (source: author).

Participant 10 (P10).:

1. Beyoncé - Halo

Mispronounced word	Reading #1	Reading #2
Embrace	/embres/	/embre1s/
Table 44: P10, reading 3 (source: author).		

2. Adele – Water Under the Bridge

Mispronounced word	Reading #1	Reading #2
Wilderness	/waɪldənəs/	/waɪldənəs/
Table 45: P10 reading 4 (source: author)		

1 able 45: P10, reading 4 (source: author).

The beginning of the second reading started with a very good start, as P1 significantly improved in the pronunciation of words they had difficulty with. However, other participants were not as successful as P1.

However, a comparative analysis of all participants and their improvements will now be presented. For each participant, columns will be created with listening habits and how often they listened to the assigned songs, so that interviews are also included in this comparative analysis. The last column will mention overall pronunciation improvement and. This last column serves to detail specific changes made by the participants that were observed while reading the given text. The results of this comparative analysis will now be presented in the following chapter.

Participant	Listening Habits	Frequency of Listening	Pronunciation
		to Given Songs	Improvement
P1	Social media, YouTube	Occasionally	Significant
	(vlogs)		improvement
P2	Video games, social media	Occasionally	Moderate
			improvement
P3	Video games, YouTube	Frequently	Moderate
			improvement
P4	Traveling abroad, family	Very frequently	Moderate
	interaction		improvement
P5	English music, social media	Very frequently	Significant
			improvement
P6	Reading books and comics,	Rarely	No improvement
	social media		
P7	Tutoring, traveling abroad	Very frequently	Moderate
			improvement
P8	YouTube, social media	Rarely	No improvement
P9	Social media, YouTube	Rarely	Significant
			improvement
P10	English music, YouTube,	Occasionally	Moderate
	reading in English		improvement

7.3 Comparative analysis

Table 46: Comparative analysis of all participants (source: author).

The table shows the listening habits of ten participants and how these habits affect their pronunciation improvement. Participants use various media like social media, YouTube, video games, traveling, family interaction, and reading. They listen to songs at different frequencies: some very frequently (like P4, P5, and P7), some occasionally (like P1 and P10), and some rarely (like P6, P8, and P9).

The improvement in pronunciation varies among participants. P1 and P5 show significant improvement, even though they listen occasionally or very frequently. On the other hand, P6 and P8, who rarely listen to songs, show no improvement. Participants like P2, P3, P4, P7, and P10, who listen more often, show moderate improvement. Interestingly,

P9 shows significant improvement despite listening rarely, suggesting that other factors might also help with pronunciation. After comparative analysis, the research questions will now be answered in the following chapter.

7.4 Evaluation of Research Questions

The entire practical segment of the study addressed two fundamental research questions that were being investigated. Through semi-structured interviews, comparative analysis, and subsequent data analysis using the method of creating clusters, the answer to these research questions were as follows:

1. "How does listening to English music impact the pronunciation skills of high school students in Czechia learning English as a second language?"

Listening to English music appears to help Czech high school students improve their English pronunciation. The frequency did not play a significant role, as we can see from the evaluated data. For example, P1, who listened to the assigned songs only occasionally, still showed the greatest improvement compared to the first reading. Meanwhile, participants who listened to the assigned songs rarely, such as P9, also improved significantly, especially with words that other participants struggled with.

2. "What are the significant differences in pronunciation of high school students in Czechia learning English as a second language who regularly listen to English music and those who do not?"

There are notable differences in pronunciation between Czech high school students who regularly listen to English music and those who do not. Students who listen to very frequently English music, like P1 and P8, demonstrate very different results, where P1 improved significantly, but P8 did not.

Moreover, students who rarely engage with English music, such as P9, showed improvement in their pronunciation skills. This suggests that consistent exposure to English music relates to better pronunciation outcomes. However, the correlation between the participants who regularly listen to English music was not significant and did not play a vital role in this research.

Conclusion of practical part

In conclusion, the practical part of this research confirms that listening to English music can improve the pronunciation skills of high school students learning English as a second language. The comparative analysis between regular listeners and non-listeners showed clear advantages for those who listened to English music frequently. This suggests that music can be used as a valuable tool in language teaching, providing a fun and effective way to improve pronunciation and overall language skills. Future research could explore this relationship further, perhaps with a larger sample size or longer longitudinal case study and a more diverse range of musical genres, to confirm and extend these findings. Moreover, more intensive listening to songs would help get more results.

This study also highlights the importance of innovative teaching methods in language education and the potential for music to take place instead of the traditional pronunciation teaching methods. By including the power of music, teachers can provide students with a more dynamic and effective learning experience, which can result to greater success in mastering the difficulties of English pronunciation.

Conclusion

In this thesis, the main topic was the influence of listening to music on the English pronunciation skills on students' pronunciation. The research was based on a combination of linguistics fields, such as phonetics, phonology, and music, which aimed to explore whether regular exposure to English music could serve as an effective tool for improving students' pronunciation.

The theoretical part of this thesis focused on key aspects from phonetics and phonology, explaining how speech sounds are produced and perceived. Understanding these concepts was necessary for analyzing how music could help in language acquisition. The discussion on the International Phonetic Alphabet (IPA) was particularly relevant, as it provided a fundamental method for evaluating pronunciation improvements in the practical part. By using IPA, the research was able to document even subtle variations in students' pronunciation, offering a detailed analysis of their progress.

On the other hand, the practical part focused on two primary research questions: how listening to English music impacts the pronunciation skills of high school students in Czechia learning English as a second language, and what significant differences exist in the pronunciation of these students compared to those who do not regularly listen to English music. Through semi-structured interviews, method of creating clusters, longitudinal case study and comparative analysis, the study revealed that regular exposure to English music positively impacts students' pronunciation skills. Participants who frequently listened to English songs showed noticeable improvements in their pronunciation. The comparative analysis highlighted significant differences between regular listeners and non-listeners. Regular listeners showed fewer pronunciation mistakes. They were better at imitating the details of English pronunciation, probably because they listened to music with English rhythms, tones, and accents a lot. Moreover, even participants who did not listen to assigned songs that much were able to improve, and their pronunciation has enhanced.

Additionally, the practical part of this thesis involved a longitudinal case study of students' pronunciation over several weeks. By analyzing their pronunciation mistakes before and after regular exposure to selected English songs, the study provided concrete

evidence of the improvements. The interviews conducted at the beginning and end of the study period also offered valuable insights into the students' own perceptions of their progress. Many participants were also feeling more confident in their pronunciation and said it was because they listened to English music.

The findings of this study suggest that incorporating music into English language teaching can be considered as an effective strategy. Music not only makes the learning process more enjoyable but also influences phonetic patterns through repetition and melody, helping them remember and copy sounds correctly, which can improve their overall pronunciation. It can be assumed that the use of music as a pedagogical tool in language learning can be beneficial.

In conclusion, the influence of listening to music on students' English pronunciation can only be considered helpful. This thesis has demonstrated that music can serve as another way of teaching English language acquisition, offering an enjoyable and effective ways of improving pronunciation skills. Future research could expand on these findings by exploring the impact of different genres of music, the role of lyrics or even the use of more diverse music styles, and the long-term effects of music-based language learning strategies. Ultimately, this study shows that music can help people learn languages better. It also gives teachers useful ideas on how to improve their students' pronunciation and language skills.

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List of abbreviations

etc. - et cetera et al. - et alia (and others)

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Appendixes

Appendix 1: Song lyrics (Beyoncé – Halo) Appendix 2: Song lyrics (Adele – Water Under the Bridge) Appendix 3: Song lyrics (Illenium, Jon Bellion – Good Things Fall Apart)

Appendix 1: Song lyrics (Beyoncé – Halo)

Remember those walls I built? Well, baby, they're tumbling down And they didn't even put up a fight They didn't even make a sound I found a way to let you in But I never really had a doubt Standin' in the light of your halo I got my angel now It's like I've been awakened Every rule I had you breakin' It's the risk that I'm takin' I ain't never gonna shut you out Everywhere I'm lookin' now I'm surrounded by your embrace Baby, I can see your halo You know you're my saving grace You're everything I need and more It's written all over your face Baby, I can feel your halo Pray it won't fade away I can feel your halo (halo). halo . . .

Hit me like a ray of sun Burning through my darkest night You're the only one that I want Think I'm addicted to your light I swore I'd never fall again But this don't even feel like fallin' Gravity can't begin To pull me back to the ground again It's like I've been awakened Every rule I had you breakin' The risk that I'm takin' I'm never gonna shut you out Everywhere I'm lookin' now I'm surrounded by your embrace Baby, I can see your halo You know you're my saving grace You're everything I need and more It's written all over your face Baby, I can feel your halo Pray it won't fade away I can feel your halo (halo). halo

... Halo

Halo Everywhere I'm lookin' now I'm surrounded by your embrace Baby, I can see your halo You know you're my saving grace You're everything I need and more It's written all over your face Baby, I can feel your halo Pray it won't fade away I can feel your halo (halo). halo

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Appendix 2: Song lyrics (Adele – Water Under the Bridge)

If you're not the one for me Then how come I can bring you to your knees? If you're not the one for me Why do I hate the idea of being free? And if I'm not the one for you You've gotta stop holding me the way you do Oh, honey, if I'm not the one for you Why have we been through what we have been through? It's so cold out here in your wilderness I want you to be my keeper But not if you are so reckless If you're gonna let me down, let me down gently Don't pretend that you don't want me Our love ain't water under the bridge If you're gonna let me down, let me down gently Don't pretend that you don't want me Our love ain't water under the bridge Woah-woah Say that our love ain't water under the bridge What are you waiting for? You never seem to make it through the door And who are you hiding from? It ain't no life to live like you're on the run Have I ever asked for much? The only thing that I want is your love If you're gonna let me down, let me down gently Don't pretend that you don't want me Our love ain't water under the bridge If you're gonna let me down, let me down gently

Don't pretend that you don't want me Our love ain't water under the bridge Woah-woah Say that our love ain't water under the bridge It's so cold in your wilderness I want you to be my keeper But not if you are so reckless If you're gonna let me down, let me down gently Don't pretend that you don't want me Our love ain't water under the bridge If you're gonna let me down, let me down gently Don't pretend that you don't want me Our love ain't water under the bridge Say that our love ain't water under the bridge (Say it ain't so, say it ain't so). (Say it ain't so, say it ain't so). Say that our love ain't water under the bridge Say that our love ain't water under the bridge

Appendix 3: Song lyrics (Illenium, Jon Bellion – Good Things Fall Apart) Did I say something wrong? Did you hear what I was thinking? Did I talk way too long when I told you all my feelings that night? Is it you? Is it me? Did you find somebody better? Someone who isn't me, 'cause I know that I was never your type Never really your type Overthinking's got me drinking Messing with my head, whoa Tell me what you hate about me Whatever it is, I'm sorry Yeah, yeah, yeah, yeah, yeah, yeah I know I can be dramatic But everybody said we had it Yeah, yeah, yeah, yeah, yeah, yeah I'm coming to terms with a broken heart I guess that sometimes good things fall apart When you said it was real, guess I really did believe you Did you fake how you feel when we parked down by the river that night? That night? That night when we fogged up the windows in your best friend's car 'Cause we couldn't leave the windows down in December Whoa Tell me what you hate about me Whatever it is, I'm sorry Yeah, yeah, yeah, yeah, yeah, yeah I know I can be dramatic But everybody said we had it Yeah, yeah, yeah, yeah, yeah, yeah

I'm coming to terms with a broken heart I guess that sometimes good things fall apart Overthinking's got me drinking Messing with my head, oh Tell me what you hate about me (about me) Whatever it is, I'm sorry (oh, I'm sorry) Yeah, yeah, yeah (oh, I'm sorry), yeah, yeah, yeah I know I can be dramatic (I know I can be) Everybody said we had it Yeah, yeah, yeah, yeah, yeah I'm coming to terms with a broken heart I guess that sometimes good things fall apart

Annotation

Jméno a příjmení:	Martin Hemza
Katedra nebo ústav:	Ústav cizích jazyků
Vedoucí práce:	Mgr. Jana Kořínková, Ph.D.
Rok obhajoby:	2024

Název práce:	Vliv poslouchání hudby na výslovnost žáků v angličtině
Název v angličtině:	The Influence of Listening to Music on Student's
	Pronunciation
	Diplomová práce zkoumá vliv poslouchání hudby na
	výslovnost studentů angličtiny. Teoretická část se zaměřuje
	především na fonetiku a fonologii, společně s častými
Anotace prace:	chybami, kterých se Češi dopouštějí. Praktická část
	analyzuje samotný vliv poslouchání hudby a zjišťuje, zda
	má tento poslech pozitivní vliv na výslovnost u studentů.
Klíčová slova:	výslovnost, hudba, angličtina, fonetika, fonologie, jazyk
	The thesis examines the influence of listening to music on
	the pronunciation of English by students. The theoretical
	part focuses primarily on phonetics and phonology, along
Anotace v angličtině:	with common mistakes made by Czech speakers. The
	practical part analyzes the actual influence of listening to
	music and investigates whether this listening has a positive
	effect on students' pronunciation.
Klíčová slova	pronunciation, music, English, phonetics, phonology,
v angličtině:	language
	Příloha 1: Song lyrics (Beyoncé – Halo)
Přílohy vázané v práci:	Příloha 2: Song lyrics (Adele – Water Under the Bridge)
	Příloha 3: Song lyrics (Illenium Jon Bellion – Good Things
	Fall Apart)
Rozsah práce:	97 s.
Jazyk práce:	Anglický jazyk