# Native Speakers vs. Czechs Speaking English: The Differences in Pronunciation of English Vowels

Barbora Míčková

Bachelor Thesis
2015



# PROHLÁŠENÍ AUTORA BAKALÁŘSKÉ PRÁCE

#### Beru na vědomí, že

- odevzdáním bakalářské práce souhlasím se zveřejněním své práce podle zákona č.
   111/1998 Sb. o vysokých školách a o změně a doplnění dalších zákonů (zákon o
   vysokých školách), ve znění pozdějších právních předpisů, bez ohledu na výsledek
   obhajoby <sup>1)</sup>;
- beru na vědomí, že bakalářská práce bude uložena v elektronické podobě v univerzitním informačním systému dostupná k nahlédnutí;
- na moji bakalářskou práci se plně vztahuje zákon č. 121/2000 Sb. o právu autorském, o právech souvisejících s právem autorským a o změně některých zákonů (autorský zákon) ve znění pozdějších právních předpisů, zejm. § 35 odst. 3 <sup>2)</sup>;
- podle § 60 <sup>3)</sup> odst. 1 autorského zákona má UTB ve Zlíně právo na uzavření licenční smlouvy o užití školního díla v rozsahu § 12 odst. 4 autorského zákona;
- podle § 60<sup>3)</sup> odst. 2 a 3 mohu užít své dílo bakalářskou práci nebo poskytnout licenci k jejímu využití jen s předchozím písemným souhlasem Univerzity Tomáše Bati ve Zlíně, která je oprávněna v takovém případě ode mne požadovat přiměřený příspěvek na úhradu nákladů, které byly Univerzitou Tomáše Bati ve Zlíně na vytvoření díla vynaloženy (až do jejich skutečné výše);
- pokud bylo k vypracování bakalářské práce využito softwaru poskytnutého Univerzitou Tomáše Bati ve Zlíně nebo jinými subjekty pouze ke studijním a výzkumným účelům (tj. k nekomerčnímu využití), nelze výsledky bakalářské práce využít ke komerčním účelům.

#### Prohlašuji, že

- elektronická a tištěná verze bakalářské práce jsou totožné;
- na bakalářské práci jsem pracoval samostatně a použitou literaturu jsem citoval.
   V případě publikace výsledků budu uveden jako spoluautor.

Ve Zlíně 1.5. 2015

Barbora Mictoria

<sup>1)</sup> zákon č. 111/1998 Sb. o vysokých školách a o změně a doplnění dalších zákonů (zákon o vysokých školách), ve znění pozdějších právních předpisů, § 47b Zveřejňování závěrečných prací:

<sup>(1)</sup> Vysoká škola nevýdělečně zveřejňuje disertační, diplomové, bakalářské a rigorózní práce, u kterých proběhla obhajoba, včetně posudků oponentů a výsledku obhajoby prostřednictvím databáze kvalifikačních prací, kterou spravuje. Způsob zveřejnění stanoví vnitřní předpis vysoké školy.

- (2) Disertační, diplomové, bakalářské a rigorózní práce odevzdané uchazečem k obhajobě musí být též nejméně pět pracovních dnů před konáním obhajoby zveřejněny k nahlížení veřejnosti v místě určeném vnitřním předpisem vysoké školy nebo není-li tak určeno, v místě pracoviště vysoké školy, kde se má konat obhajoba práce. Každý si může ze zveřejněné práce pořízovat na své náklady výpisy, opisy nebo rozmnoženiny.
- (3) Platí, že odevzdáním práce autor souhlasí se zveřejněním své práce podle tohoto zákona, bez ohledu na výsledek obhajoby.
- 2) zákon č. 121/2000 Sb. o právu autorském, o právech souvisejících s právem autorským a o změně některých zákonů (autorský zákon) ve znění pozdějších právních předpisů, § 35 odst. 3:
- (3) Do práva autorského také nezasahuje škola nebo školské či vzdělávací zařízení, užije-li nikoli za účelem přimého nebo nepřimého hospodářského nebo obchodního prospěchu k výuce nebo k vlastní potřebě dílo vytvořené žákem nebo studentem ke splnění školních nebo studijních povinností vyplývajících z jeho právního vztahu ke škole nebo školskému či vzdělávacího zařízení (školní dílo).
- 3) zákon č. 121/2000 Sb. o právu autorském, o právech souvisejících s právem autorským a o změně některých zákonů (autorský zákon) ve znění pozdějších právních předpisů, § 60 Školní dílo:
- (1) Škola nebo školské či vzdělávací zařízení mají za obvyklých podmínek právo na uzavření licenční smlouvy o užití školního díla (§ 35 odst.
- Odpírá-li autor takového díla udělit svolení bez vážného důvodu, mohou se tyto osoby domáhat nahrazení chybějícího projevu jeho vůle u soudu. Ustanovení § 35 odst. 3 zůstává nedotčeno.
- (2) Není-li sjednáno jinak, může autor školního díla své dílo užít či poskytnout jinému licenci, není-li to v rozporu s oprávněnými zájmy školy nebo školského či vzdělávacího zařízení.
- (3) Škola nebo školské či vzdělávací zařízení jsou oprávněny požadovat, aby jim autor školního díla z výdělku jím dosaženého v souvislosti s užitím díla či poskytnutím licence podle odstavce 2 přiměřeně přispěl na úhradu nákladů, které na vytvoření díla vynaložily, a to podle okolností až do jejich skutečné výše; přitom se přihlédne k výši výdělku dosaženého školou nebo školským či vzdělávacím zařízením z užití školního díla podle odstavce 1.

# Univerzita Tomáše Bati ve Zlíně

Fakulta humanitních studií Ústav moderních jazyků a literatur akademický rok: 2014/2015

# ZADÁNÍ BAKALÁŘSKÉ PRÁCE

(PROJEKTU, UMĚLECKÉHO DÍLA, UMĚLECKÉHO VÝKONU)

Jméno a příjmení: Barbora Míčková

Osobní číslo:

H12877

Studijní program: B7310 Filologie

Studijní obor:

Anglický jazyk pro manažerskou praxi

Forma studia:

prezenční

Téma práce:

Rodilí mluvčí vs. anglicky mluvící Češi: Rozdíly ve

výslovnosti anglických samohlásek

#### Zásady pro vypracování:

Studium odborné literatury z oblasti analýzy výslovnosti anglických a českých samohlásek Shromažďování nahrávek Čechů vyslovujících anglické samohlásky Upřesnění cílů a formulace hypotézy Analýza korpusu materiálu Potvrzení resp. vyvrácení hypotézy, vyvození závěru

Rozsah bakalářské práce:

Rozsah příloh:

Forma zpracování bakalářské práce: tištěná/elektronická

Seznam odborné literatury:

Ondráček, Jaroslav. 2011. "Problems in Communication Caused by Mistakes in the Pronunciation of English by Czechs." PhD diss., Masaryk University.

Skaličková, Alena. 1974. Srovnávací fonetika angličtiny a češtiny. Praha: Academia.

Skarnitzl, Radek, and Jan Volín. 2010. "The Strength of Foreign Accent in Czech English Under Adverse Listening Conditions." Speech Communication 52, no. 11–12 (November): 1010–1021. Accessed October 7, 2014. http://elsevier.com/locate/specom.

Tomková, Kateřina. 2005. "The Perception of Non-Native Pronunciation of English by Native Speakers." PhD diss., Masaryk University.

Wikstrom, Jussi. 2014. "The Relationship Between Vowel Production and Perception: Native Speakers' Perception of Nativeness in LOT and THOUGHT Vowels in Received Pronunciation." English Today 30, no. 01 (March): 37–47. Accessed October 9, 2014. http://journals.cambridge.org/abstract\_S0266078413000552.

Vedoucí bakalářské práce:

PhDr. Katarína Nemčoková, Ph.D. Ústav moderních jazyků a literatur

Datum zadání bakalářské práce:

28. listopadu 2014

Termín odevzdání bakalářské práce:

7. května 2015

Ve Zlíně dne 6. ledna 2015

doc. Ing. Anežka Lengálová, Ph.D.

0

PhDr. Katarína Nemčoková, Ph.D.

ředitelka ústavu

#### **ABSTRAKT**

Tato práce je zaměřena na problematiku výslovnosti anglických samohlásek u Čechů a na faktory, které možné odlišnosti vyvolávají. Stanovený problém je analyzován pomocí komparace zvukových nahrávek rodilého mluvčího a dvaceti českých studentů, kteří se učí anglický jazyk nejméně deset let. Nahrány byly dvojice slov obsahující krátké a dlouhé anglické samohlásky a také dvojice, ve kterých se objevují české a anglické homofonní slova obsahující ekvivalentní samohlásky. Práce obsahuje jasně stanovené odlišnosti dvou zkoumaných systémů samohlásek, a také podobnosti, které lze mezi těmito systémy najít.

Klíčová slova: anglické krátké samohlásky, anglické dlouhé samohlásky, české krátké samohlásky, české dlouhé samohlásky, příčiny, odlišnosti, problematické samohlásky, výslovnost

#### **ABSTRACT**

This thesis focuses on the issue of the Czechs' pronunciation of English vowels and likewise on the factors that cause the possible differences. The stated problem is analysed by comparing the audio recordings of the native speaker and twenty Czech students who have been studying English for at least ten years. Pairs of words containing short and long English vowels were recorded. Moreover, the recordings of the Czech and English homophones which contain the equivalent vowels have been made. The thesis contains clearly defined differences between the two analysed systems of vowels as well the similarities which can be determined between those systems.

Keywords: English short vowels, English long vowels, Czech short vowels, Czech long vowels, causes, differences, problematic vowels, pronunciation

#### **ACKNOWLEDGEMENTS**

I would like to express great thanks to my supervisor PhDr. Katarína Němčoková, PhD. for her kind guidance and priceless advice which she provided me with during the whole time of writing this thesis. I am also very thankful for her invaluable comments and support which enabled me to finish the thesis without any greater difficulties.

My thanks are also due to the Czech speakers of English, who enabled me to make the recordings. I owe my thanks to them for their willingness to participate in my research.

Last but not least, I would like to express my gratitude to my family and friends for their support that they provided me with during my studies.

# **CONTENTS**

IN	ITRO	DU	CTION	9	
I	THEORY10				
1	GENERAL DESCRIPTION OF VOWELS			11	
	1.1 Cla		assification of Vowels	11	
	1.2	Eng	glish Vowels	12	
	1.2.		Shape and Position of the Tongue	12	
	1.	2.2	Lip Position	13	
	1.3	Cz	ech Vowels	13	
	1.	3.1	Shape and Position of the Tongue	13	
	1.	3.2	Lip Position	14	
2 SHORT		OR'	T VOWELS OF THE ENGLISH AND CZECH LANGUAGE	15	
	2.1	Sho	ort Vowels of the English Language	15	
	2.2	Sho	ort Vowels of the Czech Language	16	
	2.	2.1	Comparing the English and Czech Short Vowels	16	
3	LO	NG	VOWELS OF THE ENGLISH AND CZECH LANGUAGE	20	
	3.1	Lo	ng Vowels of the English Language	20	
	3.2	Lo	ng Vowels of the Czech Language	20	
	3.	2.1	Comparing the English and Czech Long Vowels	20	
4 SUMMARISATION OF THE MAIN DIFFERENCES BETWEEN ENGLISH AND CZECH VOWEL SYSTEMS			IARISATION OF THE MAIN DIFFERENCES BETWEEN THE LISH AND CZECH VOWEL SYSTEMS	23	
	4.1	The	e Repertory of Vowels	23	
	4.2	The	e Way of Articulation	23	
	4.3	The	e Length of Vowels	23	
II	AN	IAL	YSIS	24	
5	A METHODOLOGY OF THE ANALYSIS		25		
	5.1	Sho	ort vowels	26	
	5.2	Lo	ng vowels	31	
	5.3	Cz	ech and English Homophones	35	
C	CONCLUSION39				
B	BIBLIOGRAPHY41				
$\mathbf{A}$	APPENDICES42				

#### INTRODUCTION

Vowels in Czech pronunciation closely resemble vowels in English native speaker's pronunciation as Czech and English vowels share similar features. A conversation in the English language can represent pleasure for some Czech learners. However, it can be a difficult task for some Czech people, probably because they are afraid of it or they do not know the language well and do not have the needed language skills. They see problems either in the pronunciation or in the understanding of the speech. That is why I decided to partly find some of the reasons for these difficulties, what causes them, and also to learn whether there are some similarities between the Czech and English language system.

This work is aimed to prove or disprove the similarity between the Czech pronunciation of English vowels and the English pronunciation of them. Moreover I want to determine the factors causing the possible differences between the two discussed vowel systems.

I focus on vowels only since I consider vowel-related issue to be a broad topic. My hypothesis is that there are few sounds specific for only the English language and that their equivalents do not appear in Czech. Therefore I suppose that some English vowels, for instance [æ] or [ɔ:], cannot be pronounced correctly by the Czech speakers due to the fact that the English vocalic phonemes do not have any equivalents in Czech. Accordingly, I want to ascertain which vowel sounds of the English language are the most problematic for the Czech learners of English and what causes the mistakes in their pronunciation.

The outcome of this work should be clearly named differences between those two vowel systems and also the causes from which these differences arise.

I. THEORY

#### 1 GENERAL DESCRIPTION OF VOWELS

According to Peter Roach (2009, 10) vowels are sounds which produce air that is not obstructed when it passes from larynx to the lips. Another definition is that the vowels are "sounds produced by the vocal chords as modified only by changes in the shape of the unobstructed oral cavity, produced mainly by means of the tongue." (Ondráček 2011, 9).

The distribution of vowels plays an important role when it comes to the phonology of the English sounds. According to Roach (2009, 11), in the English language system the distribution is fixed and due to this property vowels as well as consonants can be classified. The distribution of vowels can also make them longer or shorter, depending on which consonant follows the particular sound. As Lisker (1974, 228 – 230) claims, If the succeeding consonant is fortis, e.g. the sound [t] or [p], the vowel is slightly shortened in contrast to the succeeding lenis consonant, e.g. [d] or [b], where the preceding vowel is prolonged. The vowels in English can be therefore distinguished to belong in three groups: long, semi-long and short. The drawback of the distribution is that it varies in different languages and therefore it is difficult to compare the language systems. When the Czech language is taken into consideration, Ondráček (2011, 34) states that the length of the vowels is fixed and therefore it can be classified only as short or long.

In conclusion, vowels thus can be perceived as sounds which are created with no obstruction of the airflow or only with a small obstruction as it was mentioned above. Despite this fact, some exceptions are present in the English language. For instance, even the consonant [h] could be considered as a vowel because the airflow is not obstructed during the articulation. This phenomenon happens since this sound is made in the larynx without help of any other articulator and therefore the airflow is not obstructed. It could be still described as a vowel but various books state that the sound mentioned above is a consonant (Pálková 1997, 56). Many other problems could be found when distinguishing vowels and consonants. Therefore looking only on the way how they are produced is not the best option how to differentiate vowels and consonants since the distinction could be done incorrectly.

#### 1.1 Classification of Vowels

In this work vowels are classified according to the shape and position of the tongue but also according to the lip position since these two articulators mostly affect the differences in the production of the vocalic phonemes. In the Czech language the position of the lips and tongue plays a significant role too therefore it could be deduced that these two articulators are both very important means of creating a sound in both languages and that they cooperate with each other during the production of the vowel sound.

In both languages under investigation also another articulators are present. These partake in the pronunciation of sounds too but not as significantly as the two mentioned above. In addition to the tongue and lips the other articulators according to Ladefoged (2001, 3) may be: pharynx, soft palate, hard palate, teeth and alveolar ridge.

#### 1.2 English Vowels

Two very important factors influence classification of vowels in the English language. The first one is the shape and position of the tongue.

#### **1.2.1** Shape and Position of the Tongue

Sometimes the middle part of the tongue is raised or the distance between the palate and upper surface of the tongue is measured (Roach 2009, 11). According to these positions and shapes of this articulator, four basic types of vowels can be distinguished in English (Roach 2009, 11). As Roach (2009, 11) claims, the first is a close vowel which means that the dorsum of the tongue is very close to the hard palate. There is very tiny space between the tongue and the roof of the mouth. Another type is called an open vowel which means that the distance between the middle part of the tongue and the roof of the mouth is bigger than with the close vowel. The third type of a vowel is called a front vowel where the front part of the tongue, in another words the tip of the tongue, is raised a little bit. When the back part of the tongue is raised the vocalic phoneme is called a back vowel.

To demonstrate these positions of the tongue and the corresponding sounds, a four-sided figure, a quadrilateral, is used to show the position of the English vowels in relation to the shapes of the tongue mentioned above. Cardinal vowels (which are not the vowels of the real speech) are usually the first to be shown in this quadrilateral. These sounds help learners to understand which range of sounds people can produce using their vocal apparatus (Roach 2009, 12). The cardinal vowels, are according to Roach (2009, 12), either primary cardinal vowels which can be described as vowels familiar to speakers of most European languages, and secondary cardinal vowels which do not sound very familiar. The reason why cardinal vowels are mentioned in this thesis is the fact that the English vocalic phonemes as well as the Czech vowels are compared to the cardinal vowels. This should

lead to better understanding of the differences between the English and Czech vowel systems.

#### 1.2.2 Lip Position

The position of lips is also very important. Lips can form various shapes during the articulation of the English sounds but only three positions will be described in detail. The first observed shape is according to Roach (2009, 13) rounded lips, which produces the sound such as [u]. Another shape is spread lips. The corners of the mouth move away from each other and the sound like [i] is made. The third and the last discussed shape is a neutral shape of lips, in which lips do not move away from each other and the created sound is the one usually produced when people hesitate (Roach 2009, 13). This short vowel is called 'schwa' [ə].

#### 1.3 Czech Vowels

Factors affecting the classification of vowels are also observable in the Czech language. The shape and position of a tongue and also the position of lips are described in this section.

#### **1.3.1** Shape and Position of the Tongue

According to Pálková (1997, 69) the Czech vowels can be divided into three groups according to the tongue position. These three groups are front, back and central which can be further divided into high, mid and low vowels. Front vowels are made when the tongue moves against the hard palate, back vowels are those where the tongue moves against the soft palate and central vowels can be understood as vowels which are placed in the middle of the two types of vowels mentioned above. Those vowels with the highest position of the dorsum of the tongue are called high vowels whereas when the dorsum of the tongue is lowered the low vowels are created (Pálková 1997, 69). English sounds discussed in Ch 1.2.1 are labelled as open and closed vowels. The difference here is in the terminology but technically the terms are interchangeable. The high vowels can be also called 'close vowels' and the low vowels 'open' because there is a bigger space in the oral cavity for the air to pass. Nevertheless, the Czech vowel system differs from the English one in more than terminology. As mentioned in section 1.2.1 the English system of vowels recognizes

various positions of the tongue and therefore the vowels are of different qualities. It applies to the Czech system of vowels too but the dorsum of the tongue is more crucial. In English vowels are typically articulated by the tip of the tongue. While in the English language the tip is rarely in contact with the lower part of the oral cavity, in Czech the tip is almost always in contact with the lower articulators such as teeth or gums (Ondráček 2011, 34). The vowels are therefore articulated with the blade of the tongue.

#### **1.3.2** Lip Position

In the Czech language the position of lips is crucial. It seems obvious that the tongue and lips are both very important articulators cooperating with each other in both languages. There are two basic types of the lip shapes. One is called longitudinal and the second is called rounded. When the cooperation between the lips and the tongue is taken into consideration the longitudinal position of the lips, where the corners of the mouth move away from each other, is specific for the front vowels like the Czech [i] and the rounded shape is made during the articulation of the back vowels like for example the Czech [u] (Pálková 1997, 71). The neutral position of the lips, when the 'schwa' vowel is created in the English language, also appears in certain situations in Czech. In the Czech language this vowel is called 'a neutral vowel' and its production is also done with the neutral shape of the lips and tongue. The jaw angle is only slightly opened (Horálek, Knapová, Dokulil and Petr 1986, 27).

#### 2 SHORT VOWELS OF THE ENGLISH AND CZECH LANGUAGE

This section is devoted to the short vowels of both languages. It may seem that the short vowels are of a short length. Notwithstanding, as mentioned previously and to be explained later in more details, the length of the sound in the English language system depends on features which are not common in the Czech language and therefore it differs from the Czech language.

# 2.1 Short Vowels of the English Language

The short vowels of the English language are [1]; [e]; [æ]; [A]; [v], [v], [e] (Roach 2009, 13-14). Even if these sounds are called short vowels they are only relatively short since there are features which change the length and quality of those vowels. Features changing the lengths and quality of vowels are discussed in Ch 1. One example provided in Ch 1 is for instance the succeeding consonant. If the succeeding consonant is fortis and unvoiced the length of the vowel is usually shortened whereas if there is a lenis voiced consonant the length of the vowel is then slightly prolonged. These differences in length will be better understood and described in the section where the Czech and English vowels are compared.

There are some examples that prove the change in the vowel quality.

#### The vowel [1]:

a) shorter variety: 'bit' – it's transcription is: [bɪt]
 b) longer variety: 'bid' – it's transcription is: [bɪd]

It is obvious that if the succeeding consonant is fortis and unvoiced, as in our example the consonant [t], the following vowel is of different quality than the second example, whereas if the succeeding consonant is lenis and voiced, for example [d] in our case, the following vowel sound is prolonged.

# The vowel [σ]:

a) shorter variety: 'put' – it's transcription is: [pot]

b) longer variety: 'wood' – it's transcription is: [wod]

The function of the fortis and lenis consonant applies in this case of the short vowel [v] as well. It can be either shortened before the fortis consonant [t] or prolonged if it is

followed by the lenis consonant [d]. This change of quality and length of the vowel applies to each short vowel sound of the English language. In conclusion, the quality and length of the vowels in English depends on the whole syllable; whereas, in the Czech language the quality and length of the sounds is fixed and does not depend on the whole syllable.

The last short English vowel is called 'schwa' with the symbol [ə] and this vowel lies in the centre of the quadrilateral. It is claimed (Hogan 2012, 3) that 'schwa' vowel is typical and unique for the English language but as described in section 2.2, this vowel is also important in the Czech language even if it is not used very much on its own.

# 2.2 Short Vowels of the Czech Language

As Horálek (1986, 31-33) states the Czech language has 5 vowels with their long variants. These vowels are [a], [e], [i], [o], [u] with the long variants [á], [é], [í], [ó], [ú] or [ů]. The last two depend on the position in the word. If the long variant of the vowel [u] is at the beginning of the word the variant [ú] is used. This variant can be also used in the middle of the word but under the condition that there is a prefix before this long vowel. If the long variant of the discussed vowel is used in the middle of the word the vocalic phoneme [ů] is used (Pravidla 2015). According to Horálek (1986, 34) the last vowel of the Czech language is the vowel [ə]. It is called a 'neutral vowel' in the Czech language and it is audible when pronouncing e.g. the letters such as 'p' - [pə] or 'b' - [bə].

For Short vowels of the Czech language are not subjects to any features which would prolong them or shorten them in comparison to the English vowel system where these modifications are observable.

# 2.2.1 Comparing the English and Czech Short Vowels

The sound [1] in the English language can be observed in words like 'bit' or 'bid'. According to its quadrilateral position this sound is more open than the cardinal vowel [i] and the lips are slightly spread (Roach 2009, 14). According to Skaličková (1974, 24), it can be compared to the Czech vowel [i]. These sounds differ from each other in articulation. The reason for it is mainly the position of the tongue. As mentioned in section 1.3.1 the tip of the tongue is almost always in contact with the articulators in the Czech language. The same applies to the Czech [i]. The tongue touches the lower teeth and gums. In case of the English sound [i] the tip of the tongue does not touch any of the articulators and it is freely placed in the oral cavity.

When articulating the English and Czech sounds the different position of the dorsum of the tongue can be observed. During the articulation of the English vowel the tongue is not as close to the hard palate as with the Czech vowel and the jaws are more spread. When the position of the lips is taken into account the lips are either slightly spread while articulating the English sound or they are in neutral position. There is a difference in articulation of the Czech sound since the lips are not as open as with the English vowel. When the position of the lips is taken into consideration, when articulating the English sound [1] the lips are spread whereas in the Czech sound [1] the lips are not so much spread (Skaličková 1974, 24-26). It can be then said that the position of the lips is almost neutral.

The sound [e] in words like 'bet' or 'bed' is very similar to the cardinal vowels [e] and [e] but it is also slightly different from them and therefore it is placed between them in the quadrilateral (Roach 2009, 14). This sound can be compared with the Czech sound of the same symbol [e]. These two sounds are very similar but still they slightly differ. When it comes to articulation the difference is again in the position of the tongue and lips. During the articulation of the English [e] vowel the tongue moves back and the tip of the tongue is repeatedly freely placed in the oral cavity and does not touch any of the articulators. When articulating the Czech vowel, the lips are in neutral position; whereas, during the articulation of the English sound [e] the lips can be slightly spread (Skaličková 1974, 29-30). Nonetheless, it can be generally said that the English [e] and the Czech [e] are very similar sounds.

The [æ] sound can be found in words like 'bat' or 'bad'. With this vowel the lips are slightly spread. When compared with the cardinal vowel number 4 [a] this sound is less open as the cardinal vowel but the two sounds share frontness (Roach 2009, 14). The [æ] sound is according to Skaličková (1974, 30-32) compared with the Czech sound [é] even if it is not the perfect couple of sounds to compare. When the English sound [æ] is produced the articulators are in a different position as they are with the Czech sound. In relation to the English sound the lips are more open than with the Czech vocalic phoneme and also the tip of the tongue does not touch any of the articulators. During the articulation of the Czech sound the tongue touches the lower teeth. The English vowel [æ] sounds much deeper than the Czech sound [é]. When the English sound [æ] is placed before the lenis consonant in the word the length is longer. On the other hand if it is followed by the fortis consonant the length is much shorter.

The fourth sound [A] is placed in the centre of the quadrilateral and can be found in words like 'cut' or 'bud'. In comparison to the quadrilateral of the cardinal vowels, the [A] vowel is more open than the open-mid tongue height (Roach 2009, 14). This sound is compared to the Czech sound [a] according to Skaličková (1974, 32-33). She claims that the tongue is again the most important factor which causes the difference in the pronunciation of those two sounds. During the articulation of the English sound [A] the tongue does not touch any articulator and it moves back in the oral cavity; whereas, while pronouncing the Czech sound [a] the tongue touches the lower teeth and the gums bellow them. The lip position is in both cases neutral. Skaličková (1974, 32) states that the English vowel [A] can have many forms; however, the standard one is comparable to the Czech vowel [a] due to the slight differences mentioned above.

The fifth short sound [p] can be heard in words like 'pot' or 'cod'. When producing this sound the lips are not fully rounded, they get slightly rounded (Roach 2009, 14). As Roach claims (2009, 14) the sound [p] lies between the open-mid and open vowel in the quadrilateral of the cardinal vowels and is "not quite fully back". In Skaličková's work (1974, 35-36) this sound is compared to the Czech vocalic phoneme [o]. During the articulation of both of them a lot of differences can be observed. The lips are more rounded while pronouncing the English sound than with the Czech sound. The tongue position is the same as with the other cases of vowel pairs mentioned. As Skaličková (1974, 36) describes when the English sound is produced the tip of the tongue does not touch any of the articulators. Nonetheless, when the Czech sound is pronounced the tip of the tongue touches the gums below the lower teeth. As Skaličková states (1974, 35) the English sound is pronounced in a higher tone than its Czech equivalent due to the fact that the vowel [p] is more open than the Czech vowel [o].

The short vowel of the sound [v] is used in the words like 'put' or 'wood'. According to Roach, this sound is very similar to the cardinal vowel [u] but the difference between those two is that the cardinal vowel is less open and it is not as close to the central vowel as the sound [v]. It can be compared to the Czech sound [u] as Skaličková (1974, 37-38) shows. Only small differences can be found between those two sounds. One of these differences is repeatedly the position of the tongue. With the English [v] the tongue goes forward in the oral cavity and so it results in making the English vowel more front than the Czech one. Moreover, the tip of the tongue is freely placed in the oral cavity when articulating the English vowel, whereas when pronouncing the Czech one the tip of the

tongue does not have to touch any of the articulators. When the lips are taken into account they are fully rounded with both of these sounds. In this case the English vowel sound is of higher tone than the Czech one. In addition, it can sometimes sound like a vowel 'schwa' in words like 'could' or 'would' (Skaličková 1974, 38). This phenomenon can be misleading for the Czech learners of English.

The last short vowel of English language is called 'schwa' and its symbol is [ə]. In an isolated position this symbol is comparable with the cardinal vowel which is placed in the same position in the oral cavity and they are of similar quality. It is believed that this vowel is typical for English language and it does not have any equivalent in the Czech language (Millin 2011, Hogan 2012, 3). Nonetheless, this claim is not entirely true. This vowel does not have any functional equivalent in the Czech language but still it can be found in some cases in the Czech language system. According to Horálek (1986, 15, 34) this sound is used in the Czech language as an initial position for other sounds. The following example illustrates the situation where the discussed vowel is used in isolated pronunciation of the Czech sounds [b] and [p]. When for instance the sounds [b] and [p] are pronounced the transcription is therefore [bə] and [pə]. It can be deduced that the Czech speakers are able to produce this particular sound since it is also present in the Czech language. The tongue does not move and the lips are in a neutral position in the Czech pronunciation of this sound as well.

# 3 LONG VOWELS OF THE ENGLISH AND CZECH LANGUAGE

This section deals with the long vowels of both languages. The relative length applies to the long vowels of English as well; therefore, the differences between the English and Czech vowels are audible.

#### 3.1 Long Vowels of the English Language

English features five long vowels. Their symbols are: [i:], [3:], [a:], [c:], [u:]. As suggested by their descriptive label they are longer than the short vowels if compared in the same context (Roach 2009, 16). However, they do not differ only in length but also in the quality. This is caused mainly by the position and shape of the tongue; however, the position of lips and the character of the succeeding consonant, which can either prolong or shorten the vowel, plays an important role as well.

# 3.2 Long Vowels of the Czech Language

Czech long vowels are variants of the short vowels. Their transcription symbols are: [á], [é], [í], [ó], [ú] or [ů]. In the Czech language vowels in general are very well distinguished and they are not the subject to the reduction (Pálková 1997, 170). It can be therefore said that whereas in English we have to take many features that change the length and quality of the vowels into consideration, such as the succeeding consonant or the position of the tongue, in the Czech language the distinction between the long and short vowels is fixed and only very slight changes in the quality and length of the Czech vowels are observable.

# 3.2.1 Comparing the English and Czech Long Vowels

The sound [i:] in the words like 'beat' or 'bead' is according to Roach (2009, 17) very close to the cardinal vowel [i]. One difference is that when the sound [i:] is articulated the lips are slightly more spread than with the articulation of the cardinal vowel number 1[i]. This lip position causes the slight difference in the quality of these two sounds. Despite its similarity to the cardinal vowel number 1 [i], the [i:] sound is more frontal due to the tongue position (Roach 2009, 17). Taking the Czech vocalic phoneme [i] into consideration it is more frontal than the English vocalic phoneme. The tongue also touches the area between the lower teeth and gums. During the articulation of the English phoneme the tongue does not touch any of the articulators as is the situation with other vocalic phonemes in English (Skaličková 1974, 24). The labial cleft is spread throughout the

production of the English vocalic phoneme. This does not apply to the pronunciation of the Czech sound because the lip position is almost neutral. The following consonant also influences the length of the English vowel similarly to the previous examples of the English vocalic phonemes (Skaličková 1974, 28). This does not apply to the Czech long variant of the short vowel [i] because the length of sounds is fixed in Czech. As Skaličková (1974, 26) claims the Czech long vowel [í] is always twice long than its short equivalent.

The second sound [3:] can be found in the words like 'hurt' or 'heard'. This sound is mid-central and the lips are not moving while articulating this sound. As Roach (2009, 17) states the [3:] vowel is difficult to copy for many learners of English. In the Czech system there are no words with the similar sound. Therefore the Czech pronunciation of this sound is usually more like the Czech long [é] rather than the English vowel [3:].

The third long vowel according to Roach (2009, 17) is [a:] sound. This sound is used in the words like 'heart' or 'hard'. As Roach (2009, 17) states, the difference between this vowel and the cardinal vowel [a] is that this cardinal vowel is more back than the long vowel mentioned. Skaličková (1974, 33) says that this vowel can be compared to the long variant of the Czech vocalic phoneme [a] which represents the symbol [á]. The differences between these sounds are observable. The position-related difference is that the Czech long variant is a little bit lower and it is more back than its short variant. Nevertheless, it is still more frontal than the English long vowel [a:]. During the articulation of the Czech sound [á] the tongue does not play any crucial role in pronunciation. It does not touch the lower part of the oral cavity. On the other hand, lips are important because they are opened and the jaw angle is the biggest in comparison to the rest of the Czech vowels. Notwithstanding, the labial cleft is more open while pronouncing the English long sound [a:] than the Czech sound [á] (Horálek, Knapová, Dokulil and Petr 1986, 33). Another difference is that the Czech vocalic phoneme is not very dependent on the following consonant whereas the long variant of the English sound is dependent on the succeeding consonant as well as other English vocalic phonemes (Skaličková 1974, 34).

The sound [5:] is according to Roach (2009, 17) an almost fully back vowel which can be found in the words like 'caught' or 'cord'. During the articulation of [5:] the lips are fully rounded. Roach (2009, 17) states that in the quadrilateral this sound can be found in the position between the cardinal vowels [5] and [6] but it is closer to the second one. As Skaličková (1974, 36-37) suggests this sound can be compared to the Czech sound [6] but there are some differences. The Czech long variant of the short vowel [6] is more front than

the English vocalic phoneme [5:]. As mentioned above, [5:] is almost fully back vowel which also means that it is the backmost vowel in English (Skaličková 1974, 36). When the lip position is taken into consideration the lips are more rounded while pronouncing the English phoneme than with its Czech equivalent. This labialisation in English also causes deeper tone than with the Czech vocalic phoneme (Skaličková 1974, 37). Even with this couple of sounds the differentiation in the length of the phonemes is observable. As mentioned with the other vowels of English [5:] is also dependent on the following consonant whereas in Czech this differentiation is almost inconsiderable.

The last long vowel is [u:]. It is used in the words like 'root' or 'rude'. According to Roach (2009, 17) it is close to the cardinal vowel [u] but the sound [u:] is not as close and back as the cardinal [u] sound. When it is compared with the Czech equivalent [ú] or [ů] the English vowel is more front as well as its short English variant. The tongue does not touch any articulator and is repeatedly freely placed in the oral cavity and the lips are more rounded than during the production of the Czech sound [ú] or [ů] (Skaličková 1974, 39). During the pronunciation of the Czech vocalic phoneme the tongue touches the lower teeth. Audible shortening of the English sound before the fortis consonant is also present in the English language whereas in Czech the influence of the following consonant on the preceding vowel is not observable.

# 4 SUMMARISATION OF THE MAIN DIFFERENCES BETWEEN THE ENGLISH AND CZECH VOWEL SYSTEMS

# 4.1 The Repertory of Vowels

The English vowel system and the Czech vowel system are different in many ways. One can be the repertory of the vowels. Whereas in the English vowel system there are 7 short vowels: [1]; [e]; [æ]; [ $\alpha$ ]; [ $\sigma$ ]; [ $\sigma$ ], [ $\sigma$ ] and 5 long vowels: [i:], [3:], [ $\sigma$ ], [ $\sigma$ ], [u:], in the Czech vowel system there can be observed only 6 short vowels: [a], [e], [i], [o], [u] and the 'neutral vowel' [ $\sigma$ ]. The long variants are: [á], [é], [í], [ó], [ú] or [ů].

#### 4.2 The Way of Articulation

Czech and English vowels are pronounced differently. Sounds in those two languages can be compared to each other but that does not mean that they are produced exactly in the same manner. Comparisons in this work are used to approach possible similarities or differences in the pronunciation of each sound. When the manner of vowel articulation is taken into account, the most essential difference is the position of the tongue. Whereas in the Czech language most of the vowels are pronounced by the blade of the tongue and the tip of this articulator usually touches the lower part of the oral cavity and helps the blade to reach the required position, in the English vocalic system the tongue does not touch any of the articulators in the oral cavity. Those vocalic phonemes of the English language are then articulated by the tip of the tongue which is freely placed in the mouth (Ondráček 2011, 34). Also the production of these vowels in the oral cavity is different in both languages. It is caused mainly by the fact that there do not appear the same equivalents for both languages; therefore, it is hard for the Czech learners of English to articulate the sounds in a proper manner. They usually assimilate the English vowels to the sounds from their mother tongue which do not equal with the English desired vocalic phonemes.

#### 4.3 The Length of Vowels

In the Czech language the length of vowels is strict and absolute and it is not dependent on the succeeding consonant. It does not apply to the English system of vowels due to the fact that their length is dependent on the following consonant. Moreover, the quality of the vowel changes within the whole syllable. If the following consonant is lenis the preceding vowel is usually rather long, on the other hand if the succeeding consonant is fortis the preceding vowel is shorter.

II. ANALYSIS

#### 5 A METHODOLOGY OF THE ANALYSIS

In this part of the work the audio recordings from the book 'English Phonetics and Phonology' by Peter Roach are used as a model pronunciation for the Czech learners. The recording was attended by 20 Czech speakers of English who have been learning English for at least 10 years. For the purposes of this thesis the 10-year period is considered sufficient for the speakers to be able to recognise the English sounds properly. The speakers were recorded while pronouncing the minimal pairs of the words containing the vowel sounds first without being exposed to the native-speaker pronunciation of the sounds. The minimal pair words are according to Hogan (2012, 4) words which differ only in one sound. Then the students were asked to repeat the same minimal pairs after hearing the recording of the same sounds by a native speaker of the English language. The respondents were recorded twice, since the aim was to demonstrate the changes in the pronunciation after they heard the words from the native speaker. While the native speaker produces the sounds automatically the learner needs to hear a sufficient example to be able to repeat the sounds in a similar way (Tomková 2005, 3). The minimal pairs or short words were chosen mainly due to the fact that the longer words could be misleading, since a lot of linking and sometimes full deletion of some sound exists in the continuous speech. To ensure that the vowels can be clearly heard the minimal pair words containing the vowel sounds were chosen. The quality and length can be better analysed in minimal pairs where one word contains a voiced and lenis consonant and is compared to the word with an unvoiced and fortis consonant.

All the students were recorded either in a small quiet room or in the library and study hall without headphones. The device used for playing the audio units is the personal computer and these audio units are played by the VLC player. There are 6 recordings dedicated to the short vowels and 5 recordings dedicated to the long vowels in the mp3 format. The reason for not recording the vowel [ə] is due to the various manners of pronunciation. As Skaličková (1974, 40) states it is hard to determine the standard manner of articulation, therefore it was not included in the analysis. On the other hand, its long equivalent [3:] was included in the recordings. Students were mainly recorded by the cell phone but some of them recorded the words by the personal computer, therefore the sound of the recordings may differ.

The additional material consists of two words, one English word and one Czech word. The purpose of this material is to show how the Czech students of the English language are influenced by the mother tongue since the words of the recorded pairs are pronounced in a similar way in both languages.

#### 5.1 Short vowels

1) The vowel [1]:

The analysed words were: 'bit' and 'bid'

This was the first recorded pair. It could be assumed that the most significant differences in the pronunciation of vowels are most audible in this recording since the majority of students would not know how the succeeding consonant influences the length and quality of the vowels. In most of the word pairs which are recorded before the students hear the native speaker's enunciation the vowels change neither in length nor in the quality. However, after listening to the native speaker's pronunciation of the words 'bit' and 'bid' some of the students make changes in the articulation of the vowel [1]. For instance, the recordings number O1-O1b show the difference between the initial and repeated articulation of the analysed vowel. At first, the student pronounces the words and simultaneously the vowels in a similar manner, meaning that they are of similar length. The difference is in the pronunciation of the voiceless and voiced consonant. The voiced consonant [d] is pronounced correctly but does not significantly influence the length of the vowel. In the second recording the student pronounces the first vocalic phoneme much shorter than in the previous recording and the vowel of the second word is prolonged. This almost correct articulation is produced due to the voiced consonant which is pronounced in a correct way. The sound of the vowel is almost identical with the correct enunciation of the English vocalic phoneme and the influence stemming from the mother tongue can be hardly heard. Other example of change in pronunciation of the vowel [1] is the recording number H1-H1b. Firstly, the student does not pronounce the voiced consonant in the word 'bid' markedly therefore the two vowel sounds are of the same length. The second recording proves the influence of the native speaker's articulation of the sound [1]. The student pronounces the voiced consonant [d] in a correct manner and simultaneously prolongs the second vowel.

On the other hand, the recordings number Q1-Q1b, J1-J1b, F1-F1b, G1-G1b, A1-A1B do not provide with any audible changes in the pronunciation of the vocalic phoneme [1]. At first, the recorded students articulate those words without preparation and then they are supposed to repeat the sounds after the native speaker. They do not make any change either

in quality of the vowels or in their length. This finding partially confirms the influence of the mother tongue since the students are not able to change the manner of the vowel articulation. The recordings number G1-G1b show the student's attempt to prolong the vowel but the vocalic phoneme is pronounced as well as for the first time. Moreover, the voiced consonant is not audible in the recording at all.

To summarise it, the most problematic aspect connected with the [I] vowel is mainly the relativeness of the vowel length. Czech students are not used to these changes since the length of vowels is fixed in the Czech language system as stated in Ch 2.2. Despite this claim, some students are able to pronounce the vowel [I] in a similar way to a native speaker. This partially proves that the Czech learners of English are able to learn this English sound properly.

#### 2) The vowel [e]:

The analysed words were: 'bet' and 'bed'

This is the second pair of the recorded words. As mentioned in section 2.2.1 the English vowel [e] is almost the same as the Czech vowel [e]. However, the length of the English vowel is relative which is true with the other vowels as well. When the recordings number CH2-CH2b are heard the change of the vowel length is obvious. In the first recording, the student changes intonation rather than the length. In the second recording both words are pronounced with the same intonation; nevertheless, the vowel in the second word is slightly prolonged due to the voiced consonant [d] which is pronounced properly and the sound of the vowel is different in the second recording. This change indicates the influence of the native speaker. As stated in Ch 2.2.1 the tongue moves back during articulation of the English [e] vowel and therefore the English vowel sounds deeper than its Czech equivalent. This phenomenon is audible in the CH2-CH2b recordings. In the first recording the vowel sounds more front than the vowel in the second recording where the [e] is pronounced almost as a back vowel. The pronunciation which does not change during recording is audible in the recordings number P2-P2b. This student pronounces the second pair of vowels exactly in the same manner as the first pair. Additionally, at first he pronounces the vowel of the first word slightly longer than the second one, even though the second word contains the voiced consonant. In the second recording the other vowel is slightly prolonged but the change is not significant.

It could be concluded that this vowel sound is not very problematic for Czech speakers of English to pronounce. Possible difficulties are connected with the relativeness of the vowel length. Nonetheless, some students have probably some ingrained pronunciation in their mind, as demonstrate for instance the recordings number P2-P2b, since even the recording of the native speaker does not help to change the articulation.

# 3) The vowel [x]:

The analysed words were: 'bat' and 'bad'

This is the third recorded pair of words. It can be stated that this vocalic phoneme is one of the most problematic vowels of the English language for the Czech students to pronounce. In majority of the recordings this vocalic phoneme is pronounced as the English vowel [e]. This claim can be proven for instance by the recordings number P3-P3b, K3-K3b, A3-A3b, D3-D3b, F3-F3b where the students pronounce the [æ] sound like the vowel [e] in both recordings. The vowel [æ] is also often pronounced as the Czech vowel [a], for instance in the recordings number Q3-Q3b, G3-G3b, S3-S3b, O3-O3b. In the recordings Q3-Q3b and G3-G3b the significant influence of the native speaker's pronunciation is obvious. They change the enunciation of the vowel completely; however, they are not able to pronounce it as the vowel [æ]. The recorded students use the vowel sound [e] or a sound very close in pronunciation to this vowel. The rationale may be the fact that the vowel [æ] does not exist in the Czech language and therefore students are not able to articulate this particular sound.

Some students were able to pronounce the vowel in a similar way as the native speaker. For example the recordings number I3-I3b, L3-L3b demonstrate very similar pronunciation to the pronunciation of the native speaker. Nevertheless, the influence of the mother tongue is audible since the vowels pronounced by students are not as open as the English vowel [æ] should be. The recordings number I3-I3b show very close articulation of the vowel [æ] to the native speaker's pronunciation of this sound.

In conclusion, the vowel [æ] can be thought as a difficult vocalic phoneme for the Czech learners of English to pronounce. This particular sound does not exist in the Czech language system therefore it is difficult to articulate it in a proper manner. Pronouncing this vowel sound as the Czech sounds [a] or [e] may lead to misunderstanding during the speech since one vowel can change the meaning of a word in the English language. For instance the words 'bet' and 'bat' are of different meanings but if pronounced in the same

manner with the vowel sound [e] the meaning of the second word would be the same as the first one. On the other hand, the recordings number I3-I3b partially confirm that the Czech speakers of English are capable of pronouncing this sound correctly.

# 4) The vowel $[\Lambda]$ :

The analysed words were: 'cut' and 'bud'

According to Skaličková (1974, 32) the differences between the English [A] sound and the Czech [a] sound are not very significant. This claim can be proven by the recordings of the students. They do not have any greater difficulties with the pronunciation of this particular sound since they seem to feel comfortable during the articulation of it. For instance the recordings number G4-G4b, I4-I4b, M4-M4b, C4-C4b show that these students are influenced by the English language due to the fact that they use aspiration while pronouncing the pair of words. When it comes to the vowel quality it is very similar to the native speaker's pronunciation. The pronounced English vowel  $[\Lambda]$  in these recordings is not as open as the Czech one and it sounds similar to the proper English pronunciation. Comparing those recordings to the recordings number B4-B4b, E4-E4b, J4-J3b, the change is not so audible. Students in these recordings pronounce the  $[\Lambda]$  vowel in the same manner as the Czech vocalic phoneme [a] and even though they listened to the native speaker they are not able to change their pronunciation. An exception is the recording number E4-E4b. This student pronounces the vowel in the second recording with aspiration and the  $[\Lambda]$  is not as sharp as with the first recording. However, it differs a little bit from the native speaker's articulation.

In summary, the vowel  $[\Lambda]$  is not very difficult to pronounce for the Czech students. It may be explained by the fact that there are not big differences between the English sound  $[\Lambda]$  and the Czech sound  $[\Lambda]$ . The problem can be connected with the relative length of the English vowels since the Czech students are not used to it in the Czech language system.

#### 5) The vowel $[\mathfrak{p}]$ :

The analysed words were: 'pot' and 'cod'

This vowel is described in Ch 2.2.1 as the vowel placed between the open-mid and open cardinal vowel of the English language. The English vowel sound [v] is considered to be more rounded and of higher tone than the Czech equivalent. The articulation of the Czech sound [o] is made in the middle of the oral cavity (Skaličková 1974, 35). As it is apparent from the analysis, the [v] sound is one of the most difficult vowels of English for

the Czech students to pronounce. The influence of the mother tongue is significantly audible in the recordings. The students pronounce the vowel [p] in a more relaxed manner; nevertheless, the correct pronunciation should be done by more open lips and the sound should be of higher tone. An exception is the recording number H5 where the student's articulation is approaching to the native speaker's pronunciation. In this record the student pronounces the [p] vowel as very open with rounded lips therefore the property of the open vowel is evident. The rest of the recordings show, that the Czech students are not aware of the fact, that this English vowel is pronounced with the lips widely open and that the tongue moves back in the oral cavity. Therefore the English vowel [p] is pronounced as the Czech vocalic phoneme [o] even though some slight changes appear. For instance, some students add the aspiration at the beginning of the word or they prolong the vowel in the word 'cod' where the voiced consonant is present.

In conclusion, this vowel can be perceived as one of the most problematic vowels for the Czech students. It is very hard to move the tongue back in the oral cavity, attempting to make a different tone of the vowel than in the Czech language system. Simultaneously, it is hard to round the lips and place the tongue freely in the oral cavity to achieve the correct openness of the vowel. The recordings show that the students make changes rather in overall articulation of the word and they do not focus on the vowel itself.

#### 6) The vowel [v]:

The analysed words were: 'put' and 'wood'

As stated in section 2.2.1 this vocalic phoneme is very similar to the Czech vowel [u] but there are some slight differences. The English vowel [v] is more frontal than its Czech equivalent and therefore the English sound is of higher tone. However, the differences are not very distinct. The students do not have any greater difficulties with pronouncing the [v] vowel. An exception is the word 'wood' which confuses the students. Mainly since this pattern of double letters sometimes signal the long sound in the English language. Due to this fact the majority of the students read the second word 'wood' as a long word with a long vowel [ú] even though the word is accompanied by the other word with short vowel. The obvious change is made in the second recording. The students hear the native speaker to pronounce the second word and its vowel longer than the first one. Notwithstanding, the students are not able to repeat the proper length of the vowel [v] and they pronounce it as the long vowel [ú]. Very similar articulation of vowels to the native speaker's

pronunciation is audible in the recordings number Q6-Q6b, P6-P6b, O6-O6b, I6-I6b. These students pronounce the vowels perfectly with appropriate length and quality, meaning that the vowels are not pronounced as sharply as the vowels in the rest of the records. Nonetheless, very significant change can be heard in the recording number CH6-CH6b. At first, the student pronounces the word 'wood' and simultaneously the vowel [ $\sigma$ ] as very long. After listening to the native speaker's recording the vowel [ $\sigma$ ] is pronounced much shorter and it can be heard that the vocalic phoneme [ $\sigma$ ] does not sound as its Czech equivalent at all. On the other hand, for instance in the recordings number A6-A6b, S6-S6b, J6-J6b, F6-F6b, B6-B6b the influence of the Czech language is audible. The students, who recorded these recordings, pronounce the vowel [ $\sigma$ ] in the same manner as they pronounce its Czech equivalent sound.

Due to the fact that the vocalic phonemes [o] and [u] are very similar no significant changes are audible in the recordings of the Czech students. It could be deduced that the relative length of the vowel sound is the most problematic in connection with this particular sound.

#### 5.2 Long vowels

#### 1) The vowel [i:]:

The analysed words were: 'beat' and 'bead'

As mentioned in Ch 2.4 long vowels of the Czech language have fixed length and are not influenced by the succeeding consonant. When the majority of the records are taken into consideration, the two words 'beat' and 'bead' containing the vowels are pronounced in the same manner even though the second word contains the voiced consonant which is supposed to prolong the vowel sound. After listening to the native speaker's recordings majority of the students is not able to change their manner of pronunciation. This can be explained by the fact that the length of the Czech vowels is fixed and therefore the Czech students are not used to change the length of the vocalic phonemes. An incorrect pronunciation of the vowel [i:] can be heard in the recording number N7. The student pronounces the second word and its vowel as the short Czech vowel [i] even though the word 'bead' contains the voiced consonant. In the recordings number B7-B7b the attempt to change the manner of pronunciation is audible. At first, the student pronounces the two vowels and words in the completely same manner but after listening to the native speaker's pronunciation the student tries to pronounce the voiced consonant [d] and prolong the

vowel. Nonetheless, the pronounced vowels sound the same even though the voiced consonant [d] is pronounced. Overall, there were no dramatic and audible deviations in connection with the pronunciation of the sound [i:] since the English vowel and its Czech equivalent are very similar. On the other hand, in the recordings number CH7-CH7b the change of articulation of the vowel [i:] is evident. Firstly, the student's pronunciation of analysed words and vowels is of the same length; nevertheless, after listening to the native speaker's articulation the student shortens the articulation of the first word and its vowel and prolongs the other word and its vowel sound.

In summary, the vowel sound [i:] is not problematic for the Czech speakers of English when the quality of the vowel is taken into consideration. The problematic aspect is rather the relative length of the vowel since the Czech students are not able to prolong the already long vowel.

# 2) The vowel [3:]:

The analysed words were: 'hurt' and 'heard'

Roach (2009, 17) states that this sound can sometimes cause problems to learners of the English language probably because in some languages no words with a comparable sound exist. The recordings of the Czech students contradict with his statement. No one from the recorded Czech students have a problem with pronouncing this particular sound. The manners of pronunciation of the whole words are not perfect; notwithstanding, this finding relates rather to the pronunciation of the consonants. When the vowel sound is taken into account, the pronunciation is relatively correct in each of the recordings. However, a small deviation can be heard in the recordings number S8-S8b where the English sound [3:] is pronounced like the Czech vowel [é]. This long variant of the short [e] is pronounced in the first recorded pair of the words 'hurt' and 'heard'. After hearing the recording of the native speaker's pronunciation the student corrects the articulation and changes the long vowel [é] for the long sound [3:].

The conclusion is that this vowel sound is not as difficult as Roach states when it comes to the Czech speakers of the English language. The interpretation of this conclusion might be the fact that the [3:] vowel is of a similar quality as the short vowel 'schwa' but it is longer. As stated in Ch 2.2 the 'schwa' vowel appears also in the Czech language. Therefore, Czech students are familiar with this sound and are capable of pronouncing it properly.

# 3) The vowel [a:]:

The analysed words were: 'heart' and 'hard'

This sound does not cause any greater difficulties to the recorded students. Since there are some tiny differences between those two sounds the irregularities do not appear very often. Nonetheless, the majority of the students pronounce this vowel sound as the Czech equivalent sound [á]. The recordings show that the vowel is articulated with less open lips even though the jaw angle should be more open during the articulation of the sound [a:] than of its Czech equivalent [á]. The vowel produced by the majority of the students is usually not as rounded as the vowel in the native speaker's recording. However, a very interesting manner of pronunciation can be heard in the recordings number C9-C9b. The slight change of the articulation is audible. Firstly, the student pronounces the vowel as the long variant of the Czech vowel [a] but after hearing the native speaker's pronunciation she changes the vowel pronunciation and articulates it rather like an English vowel sound [3:].

In conclusion, this particular sound is not problematic for the Czech learners. Its closely matching equivalent exists in the Czech language therefore students are able to pronounce it in a similar manner than the native speaker. The problematic aspect of the pronunciation of this particular sound is the vowel openness. The Czech vocalic phoneme [á] is pronounced with less opened lips; thus, when articulating the English sound [a:] the students automatically pronounce it as the Czech sound [á]. This phenomenon can therefore partially prove the influence of the mother tongue on the articulation of the [a:] phoneme.

#### 4) The vowel [5:]:

The analysed words were: 'caught' and 'cord'

This vowel is according to Skaličková (1974, 36) described as the backmost vowel of the vowel system in English. Skaličková (1974, 36) claims, that this sound is more back than its Czech equivalent. When the recordings number B9-B9b are taken into consideration, the vowel [5:] is pronounced as a back vowel and the fully rounded position of lips can be estimated as well. The quality of the sound is almost the same as the quality of the vowel pronounced by the native speaker. This student makes some slight changes in pronunciation of this particular vowel as well. For instance, the change is made in the length of the vocalic phoneme. In the first recording the student pronounces the first word and its vowel longer than the second word and vowel even though the second word 'cord'

contains the voiced consonant [d] which prolongs the length of the sound. After listening to the native speaker's recording the student changes the articulation and pronounces the second word and its vowel longer than before. However, she is not able to make any significant difference in connection to the length of those two words and corresponding vowels. The same phenomenon can be heard for instance in the recordings number D8-D8b, E10-E10b, F9-F9b, I9-I9b. An evident change in the pronunciation of the vowel [o:] can be heard in the recordings number CH10-CH10b, M9-M9b. In the recording without preparation these students pronounce the vowel in the first word as the longer one. After hearing the recording of the native speaker they totally change the pronunciation and the vowel of the first word is articulated in much shorter manner than for the first time. Another interesting manner of pronunciation can be heard in the recordings number J9-J9b. The student pronounces both of these vowels very shortly and so the vocalic phoneme [o:] does not sound as the long vocalic phoneme but rather like the English short vowel [p].

The conclusion can be that this vocalic phoneme is difficult to for the Czech learners when it comes to the pronunciation. The long vowel [5:] is the backmost vowel in English. It is hard to move the tongue back in the oral cavity to make the vowel sound deeper. Another problem can be analysed in the relative length of this vowel as well as with the rest of the English long vowels.

#### 5) The vowel [u:]:

The analysed words were: 'root' and 'rude'

Despite the fact, that the differences between the vowel [u:] and its Czech equivalent [ú] are not very significant, some slight disparities can be analysed. As mentioned before in section 2.4.1 the Czech vocalic phoneme [ú] is more back than its English variant and therefore it sounds deeper. In majority of the recordings the quality of the sound is relatively correct but the Czech students have difficulties with the length of the vowels. For example in the recordings number R11-R11b the student totally changes the pronunciation of this particular vocalic phoneme. Firstly, he pronounces the prolonged vowel in the first word as if pronouncing the second word and its long vowel. Moreover, the voiced consonant is audible in the first word even though it does not appear there. The result is that the first word is pronounced longer than the second one. Notwithstanding, after listening to the native speaker's recording the student changes the pronunciation and pronounces these vowels in a correct manner. Another example of an incorrect

pronunciation is for instance audible in the recordings number P11-P11b, L11-L11b. The students pronounce the vocalic phoneme [u:] as the short English vowel [v] either in the first or the second recording in connection to the first word 'root'. Nevertheless, the recordings number I10-I10b, H10-H10b, N11b prove that the pronunciation of these vowels can be articulated correctly. For instance the recordings number I10-I10b, H10-H10b show almost identical pronunciation of the vowel with the pronunciation of the native speaker as far as the length of the vocalic phoneme is taken into account.

The conclusion can be that the vowel [u:] is not hard to pronounce for the Czech speakers of English but it is difficult to manage the correct length of this vocalic phoneme.

#### 5.3 Czech and English Homophones

These words were chosen to demonstrate that the Czech speakers of English language can be partially influenced by their mother tongue. Homophones which sound similar but carry a different meaning exist in both languages.

#### 1) 'cut' and 'kat'

The vowel [ $\Lambda$ ] is very similar to the Czech vowel [a] therefore the audible differences are not significant. For instance, in the recordings number A12, B12, D11, E12, F12 no change is audible. It can be assumed that these students are strongly influenced by the mother tongue and do not distinguish between the sounds [ $\Lambda$ ] and [a]. Audible changes appear in the recordings number C12, J12, M12 where the aspiration is present and also the quality of vowels is slightly different. In these recordings the first vowel [ $\Lambda$ ] is more back than its Czech equivalent [a]. The most significant change can be heard in the recordings number I12, H11. The vowels [ $\Lambda$ ] and [a] are easily distinguishable since they are pronounced in a correct manner.

#### 2) 'ten' and 'ten'

The English vowel [e] and its Czech equivalent [e] are of similar properties therefore the Czech students do not have any greater difficulties with pronunciation of these vocalic phonemes. For instance the recordings number S15, J15, A15, D12 show no change in the enunciation of the English and Czech sound [e]. Despite the fact, that the aspiration is audible at the beginning of the word 'ten' in some of these recordings, the change in the vowel quality of the vowels [e] is not evident. It may be caused by the influence of the mother tongue. Some changes in the pronunciation can be heard in the recordings number

F14, M15, N13, R15 were the aspiration is used as well as slight change in the length and quality of the vowel.

# 3) 'tip' and 'tip'

The vowel [I] and [i] differ in articulation. As mentioned in section 2.2.1 the tongue is not as close to the hard palate during the articulation of the English vowel [I] than with the Czech vowel [i]. Therefore the Czech sound [i] sounds higher than the English one. The well pronounced sounds [I] and [i] can be heard for instance in the recordings number A17, B17, I14, Q17. These students distinguish between the sounds and make a clear distinction between them. They use aspiration but they pronounce the English sound [I] not as high as the Czech sound [i]. Some of the recordings where the changes are not audible are for instance the numbers J17, F16, G16. Even though in the recording number G16 the aspiration is audible the change in the vowel quality is not evident.

# 4) 'dog' and 'dok'

As mentioned in Ch 2.2.1 the English vocalic phoneme [v] is pronounced with widely spread lips and the tongue moved back in the oral cavity. It does not apply to the Czech vowel [o] since this sound is pronounced in the middle of the oral cavity with the tongue moved back but still touching the articulators. Therefore the audible difference should be evident. On the other hand, majority of the recorded students does not do any change in the pronunciation of the sounds [v] and [o]. This claim can be proven e.g. by the recordings number A13, E13, R13, F13, G13, N15, J13, K13, M13, Q13 where no significant changes are evident. Even though some of these students attempt to prolong the vowel sound the quality of it remains the same. This partially shows the influence of the mother tongue sine the students pronounce the English vowel sound [v] as its Czech equivalent [o]. There are some students who managed to make change in pronunciation. For instance in the recordings number I15, P13, B13, C13 the change of the vowel quality and length is audible.

# 5) 'look' and 'luk' or 'book' and 'buk'

As stated in section 2.2.1 the English vowel is of a higher tone than its Czech equivalent. This phenomenon can be heard for instance in the recordings number H13, E14, I16i-I16ii. The students articulate the English sound [ $\sigma$ ] of higher tone than the Czech vowel [ $\sigma$ ] therefore they pronounce it in a correct manner. On the other hand some students are probably confused and pronounce the vowel [ $\sigma$ ] as its longer variant [ $\sigma$ ]. This can be

heard for instance in the recordings number F17, G17, N16i-N16ii, O16i-O16ii. This deviation in pronunciation can be probably caused by the fact that the students attempt to make a change in the pronunciation of the two vowels [v] and its Czech equivalent [u] so much that they exaggerate the articulation of them. There are also recordings which show no change in the articulation of the vowels [v] and [u]. For instance the recordings number J18, A18, M18 prove the same vowel pronunciation in both words.

#### 6) 'past' and 'pást'

The differences between the English vowel [a:] and its Czech equivalent [á] are e.g. in the quality and also the length. The English vocalic phoneme is articulated with the tongue moved back in the oral cavity therefore it sounds deeper than the Czech vowel sound [á]. This difference can be clearly heard in the recordings number H20 and I17. The students pronounce the vowel in a correct manner. Very interesting recordings are number G22, L17. In the recording G22 the student pronounces the vowel in the same manner as the English short vowel [a]. The recording number L17 shows that the student pronounces the vowel sound [a:] as the English vowel [æ].

#### 7) 'meat' and 'mít'

As mentioned in section 2.4.1 the Czech vocalic phoneme [i] is more front than its English equivalent [i:] therefore the Czech vowel sounds higher than the English vowel. Notwithstanding, the difference in the higher or lower tone is not audible in any of the recordings. In each recording the students pronounce the vowel [i:] as its Czech equivalent [i] and do not do any changes in the pronunciation of those sounds. In conclusion, the students are probably influenced by the mother tongue and they apply the manner of articulation of the Czech vowel [i] on the English vowel [i:].

#### 8) 'chord' and 'kód'

As mentioned in Ch 2.4.1 the English vocalic phoneme [5:] is the backmost vowel in the English language system. Therefore it sounds deeper than its Czech equivalent [6]. Some slight difference can be heard in the recordings number S20 and H17. The students pronounce the word 'chord' with a deeper vowel than in the second word 'kód' therefore the pronunciation is correct. An interesting example provides the recording number Q20. It shows that the vowel [5:] can be pronounced also as the vowel [3:] by some Czech learners

of English. No change in the pronunciation of the vowels [5:] and [6] are audible for instance in the recordings number M20, A20, G19, J20.

# 9) 'stool' and 'stůl'

According to Skaličková (1974, 36) the vowel [u:] is more frontal than its Czech equivalent [ú]. Therefore the Czech sound should be slightly of deeper tone than the English one. The slight difference is audible for instance in the recordings number F20, D19, H18, Q21. The property of frontness of the English vowel is audible in these recordings. The most significant difference in the vowel production is in the recordings number L20, I20. The English and Czech vowels are clearly distinguishable thanks to the proper pronunciation of them. The frontness of the English vocalic phoneme is repeatedly audible. Nevertheless, there are some recordings which provide with no change in articulation of the vowel [u:] and [ú]. These are the recordings number A21, B21, G20 and for instance S21.

#### **CONCLUSION**

The aim of this thesis was to prove or disprove the similarity between the Czech and English pronunciation of the English vowels. Moreover, the analysis of the stated issue aimed to determine the factors which cause the differences between those two discussed vowel systems and what are the most problematic English vowel sounds for the Czech learners of English. The outcome of this thesis aimed at clearly naming the differences between the English and Czech vowel system.

The proposed hypothesis was that the English language system includes some sounds which are unique and do not appear in the Czech vowel system. The proposed vowel sounds were [æ] and [ɔ:].

In the theoretical part the general description of vowels is provided. Furthermore, the analysis of the Czech and English vowel system is performed separately regarding the number of vowels and the manner of their articulation. The ascertained findings provided in the following sentence stem from the theoretical part. The analysed vowel systems differ in a number of the vowels. In English there are seven short vowels and five long vocalic phonemes, whereas in Czech five short vowels and their five log variants are present. The 'neutral vowel' can be also counted as a short vowel of the Czech language. It is of the same quality as the 'schwa' vowel; therefore claiming that the 'schwa' vowel is unique English vocalic phoneme would be incorrect. Another difference can be discovered in the manner of articulation. The English vowel sounds are articulated with the tip of the tongue freely placed in the oral cavity while in Czech the vowels are pronounced with the blade of the tongue and the tip of this muscle usually touching the articulators, e.g. teeth or gums. The last discussed difference is the relative length of the vowel sounds. Comparing the two vowel systems it can be stated that the English vowels are of relative length and are influenced by the succeeding consonant. On the other hand, the length of the Czech vocalic phonemes is fixed and is not subject to the changes caused by the following consonant.

In the practical part the conducted research was in form of audio recordings of twenty Czech speakers of English. Thanks to the research the most problematic vowel sounds of the English language were identified. The vowel [æ] can be considered as one of the most difficult vowels for the Czech speakers to produce since it does not have any equivalent in the Czech vowel system. The [æ] vowel is pronounced often as the Czech vowel [a] or [e]. This fact can lead to misunderstanding since one vowel can change the meaning of a word in English. Another problematic English vowel is [p] since its pronunciation requires

widely open mouth and rounded lips. The tongue has to move back in the oral cavity and its tip has to be freely placed in a mouth. The Czech learners of English are not used to this manner of pronunciation therefore they pronounce the vowel [p] rather like its Czech equivalent. The last problematic vowel is [ɔ:] since it is the backmost vowel in English and it is hard for the Czech learners to move the tongue back and create a deeper tone than in the Czech language.

On the other hand there are vowels which could be considered as unique English vowels; however, as results from the analysis, these vowels do not appear as difficult to pronounce as some authors claim. The first example is the vowel 'schwa' [ə] which is often called 'a unique vowel of English'. Nonetheless, this vowel appears in the Czech language in a form of a 'neutral vowel'. It is audible when the consonants are pronounced in the isolated position. Therefore claiming that the 'schwa' vowel is a unique sound of English would not be entirely correct. Another example of English vowel which is not very difficult to pronounce is the vowel [3:]. It shares similar features with the short vowel 'schwa'. The difference is in the longer duration of this [3:] sound.

The differences between Czech and English pronunciation of the English vowels uncovered in this thesis may not apply to every Czech speaker. However, it is likely that when the most problematic English vowels are taken into consideration, these sounds will cause the main difficulties to the Czech speakers of English and the main differences between the two discussed systems will be present.

It is firmly believed that the outcome of the thesis may help the Czech students to comprehend the differences between those two vowel systems to be able to correctly pronounce the vowel sounds and to be able to perceive the English language system in a different manner.

#### **BIBLIOGRAPHY**

- Hogan, Margaret Ann. 2012. Factors Affecting the Intelligibility of Non-native Speakers of English. *Plurilinkgua* 8, no. 2 (November). Accessed on March 27, 2015. http://idiomas.ens.uabc.mx/plurilinkgua2/docs/v8/2/Hogan.pdf.
- Horálek, Karel et al. 1986. Mluvnice češtiny 1. Praha: Academia.
- Ladefoged, Peter. 2001. A Course in Phonetics. Los Angeles: Heinle & Heinle Publishers.
- Lisker, Leigh. 1974. On "Explaining" Vowel Duration Variation. *Status Report on Speech Research*, no. 21-37 (December). Accessed on March 29, 2015. http://www.haskins.yale.edu/sr/SR037/SR037\_21.pdf.
- Millin, Sandy. 2011. "Pronunciation Problems for Czech Speakers of English." WordPress. Accessed April 20, 2015. https://sandymillin.wordpress.com/2011/06/18/pronunciation-problems-for-czech-speakers-of-english/.
- Ondráček, Jaroslav. 2011. "Problems in Communication Caused by Mistakes in the Pronunciation of English by Czechs." PhD diss., Masaryk University.
- Pálková, Zdena. 1997. Fonetika a fonologie češtiny. Praha: Karolinum.
- Pravidla. 2015. "Délka samohlásek v domácích slovech." Pravidla českého pravopisu. Accessed April 15, 2015. http://www.pravidla.cz/vice/delka-samohlasek-v-domacich-slovech/?kapitola=5.
- Roach, Peter. 2009. *English Phonetics and Phonology: A Practical Course*. Cambridge: Cambridge University Press.
- Skaličková, Alena. 1974. Srovnávací fonetika angličtiny a češtiny. Praha: Academia.
- Tomková, Kateřina. 2005. "The Perception of Non-Native Pronunciation of English by Native Speakers." PhD diss., Masaryk University.

# **APPENDICES**

- P I The List of the Recorded Minimal Pairs.
- P II The List of the Czech and English Homophones.

# APPENDIX P I: THE LIST OF THE RECORDED MINIMAL PAIRS

- 1) BIT X BID
- 2) BET X BED
- 3) BAT X BAD
- 4) CUT X BUD
- 5) POT X COD
- 6) PUT X WOOD
- 7) BEAT X BEAD
- 8) HURT X HEARD
- 9) HEART X HARD
- 10) CAUGHT X CORD
- 11) ROOT X RUDE

# APPENDIX P II: THE LIST OF THE CZECH AND ENGLISH HOMOPHONES

- 1) CUT X KAT
- 2) TEN X TEN
- 3) TIP X TIP
- 4) DOG X DOK
- 5) LOOK X LUK
- 6) BOOK X BUK
- 7) PAST X PÁST
- 8) MEAT X MÍT
- 9) CHORD X KÓD
- 10) STOOL X STŮL