# UNIVERZITA PALACKÉHO V OLOMOUCI <br> PEDAGOGICKÁ FAKULTA <br> Ústav cizích jazyků 

## Bakalářská práce

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Remedial pronunciation activities for lower secondary school

I declare that I have worked on this thesis independently, using only the primary and secondary sources listed in the bibliography.

Author's signature

## Acknowledgments

I would like to thank Doc. PhDr. Václav Řeřicha, CSc., the supervisor of my bachelor thesis, who helped me to gather my thoughts about the topic, and who was willing to consult with me whenever I needed.

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## 1 Introduction

The correct English pronunciation is one of the widely neglected parts of the teaching process in primary schools. For example, I believe that I have learnt far more in terms of pronunciation through English films or song lyrics than through learning process at lower secondary school, so before I started writing this thesis, I asked myself a question. What is it that makes pronunciation so neglected? Is it the lack of proper exercises? Certainly not, because after researching the relevant literature, I found countless books aimed specifically at Czech pupils with well-developed content. So perhaps teachers are trying to fulfil all the goals of the overcrowded FEP (Framework Education Programme) without considering the details in correct pronunciation? This is speculative. These questions led me to the conclusion that it would be a good idea to outline the different pronunciation demands of the various graphic elements to all who read this bachelor thesis. The results might help with the scheduling of the time required to spend while learning pronunciation of different English words.

This thesis explores the relationship between graphics and pronunciation in the English language. In particular, it examines the difficulty of individual vowel graphemes and digraphs in guessing their pronunciation for lower secondary school learners.

In addition to providing a general overview of vowel graphemes and digraphs, this work provides detailed information about the possible causes of the problematic pronunciation of English that learners may encounter in the process of learning.

The work is divided into two parts. A theoretical part and a practical part. The theoretical part is devoted to analysing the literature used and highlighting the important information used in the rest of the thesis. The following chapters of the theoretical part are crucial to understand the practical part of the thesis which focuses on the creation of the difficulty scale, which reveals graphemes and digraphs that are difficult in terms of estimating their pronunciation and can cause problems for pupils. In order to create such a scale, it was necessary to obtain information on the basis of a survey conducted at the lower secondary school in the Chrudim region. The result of this survey is intended to reveal what is easy and what is difficult in the pronunciation of English graphemes and digraphs for the pupils of the lower secondary school.

The aim of the work is not to teach correct pronunciation, but to point out elements of pronunciation that may be difficult for Czech pupils. For a proper understanding of this work,
knowledge of IPA (International Phonetic Alphabet) is necessary and therefore this thesis is intended for university students or English language teachers.

## 2 Hypothesis

The aim of this bachelor thesis is to analyse the rules of the sound realization of the graphemes and digraphs in the English language and to create a scale of difficulty for lower secondary school learners on the basis of the obtained information. As already mentioned, the thesis focuses on the sound realization of graphemes, i.e. the realization process from letter to sound. The reason is that English learners get much more into interaction with the written form of the English language, which needs to be converted in correct pronunciation into the spoken language, than vice versa (Poldauf, 1972, p. 43). This research should help English language teachers to gain an awareness of the differential difficulty of pronunciation of individual words containing challenging sounds, which will require more time to learn during the classes. For a proper understanding of the resulting scale, it is crucial for this thesis to provide basic information about graphemes, digraphs and to clearly establish the letters discussed in the theoretical part. To obtain this information served the textbook "Mluvnice Současné Angličtiny" by Ivan Poldauf, Jaroslav Macháček and Drahomíra Fialová from 1972 and the book "Srovnávací fonetika češtiny a angličtiny" by Alena Skaličková from 1979. In both of these publications we can find an inventory of graphemes, digraphs and possibilities of their sound realization, but not differences in pronunciation demands. For a correct selection and understanding of the demanding graphemes for sound realization it is necessary to examine the differences in the Czech and English phonological systems concerning this issue. It is only by finding similarities between the two systems to find the differences and thus uncover possible graphemes whose sound realisation may cause problems for Czech learners as they are unpredictable to be said. In order to support the credibility of the information presented in the research of this thesis, it is necessary to choose the right sources. Various pronunciation exercises are already discussed in many textbooks and theses; therefore, the aim is not to create another exercise but provide comparison in the difficulty of individual graphemes and digraphs which can be challenging for lower secondary school learners.

## 3 Evaluation of the literature used

This part of the thesis is devoted to the review of the literature that was used for the research. Therefore, in this chapter, several publications will be analysed and key information relevant to the practical part of the thesis will be pointed out.

### 3.1 Srovnávací fonetika češtiny a angličtiny

"Srovnávací fonetika češtiny a angličtiny" is a book written in 1979 which systematically compares English sound material with Czech sound material. It is the first research which approaches this issue and is therefore unique.

Skaličková (1979) always first points out the differences between the sounds so that similarities between them can then be established. These differences are systematically categorized in the book.

In her work Skaličková (1979) compares Czech and English consonants and vowels, semioclusives, constrictives, nasals and L- and R-vowels. This comparison is crucial for my hypothesis, as it serves to identify sounds that do not occur in Czech and may cause learning problems for Czech learners. This comparison is in the book divided into several categories. Articulatory, which focuses mainly on the position of the speech organs in the production of each allophone, qualitative differences, which focus on the intensity of tone in speaking and the variation of realizations. This is followed by quantitative differences, which address the analogous length of Czech and English allophones, distributional differences, which address the position of allophones in words, and finally differences in spelling.

The book also discusses the suprasegmental elements of the two phonological systems, which are considered very important in terms of the phonological aspect of the language but are irrelevant to my hypothesis and the practical part of the thesis in terms of content. Furthermore, the book discusses the issue of diphthongs, which are mentioned for their importance in this thesis, as the focus is on the complexities of the sound interpretation of individual graphemes and Czech diphthongs are much simpler compared to English diphthongs.

Skaličková (1979) presents a list of the various sound realizations of the same graphemes which is a very important part of the book that helps to find proper words used for the final research of this theses. The different pronunciations of the same graphemes are one of the
discussed parts of this bachelor's thesis and this overview is used to obtain a range of complexity for each grapheme.

One of the few problems with this book is the year of publication; as phonological systems are still evolving; some statements may be invalid. Therefore, it is necessary to verify any information in the book with another more recent source.

In the addition, the work is supported by a list of the most common mistakes made by Czech learners, which were used to select graphemes for the practical exercises of this thesis. The last pages of the book are devoted to pictorial appendices, in which Skaličková (1979) shows the differences in the position of the articulatory organs while pronouncing English and Czech words, and the recordings of the sonograph used to record the vibrations of the individual sounds. However, these recordings are unimportant for this thesis, as the focus is on creating a scale of difficulty, not on the production of individual sounds.

Srovnávací fonetika angličtiny a češtiny is the main source for this thesis. Due to its form, structure, and content, it has served as a quality source to support the hypothesis.

### 3.2 Mluvnice současné angličtiny

Ivan Poldauf, Jaroslav Macháček and Drahomíra Fialová (1972), discusses the prerequisites for mastering the correct pronunciation of the English language, which are accompanied by phonetic exercises that make up almost half of the pages of the publication.

Poldauf (1972) points out that phonological exercises that helps to acquire correct English pronunciation are only of value when the learner knows the theory, especially how to form the sounds, transcription marks of the pronunciation and the acoustic properties of the syllables common in the language. For this reason, the first part of the book provides this theoretical information, which are necessary to acquire the competence to practice. This theoretical part of the book is divided into several sections which are dedicated to the explanation of each consonant and vowel in terms of its articulation, its frequency in English language and the variation of its use. Furthermore, this part focuses on the graphic realization of the individual sounds, which, according to Poldauf (1972), are necessary for the formation of correct habits in written form of English language. The end of the theoretical part of a book is devoted to the differences between British and American accents.

Particularly important for the hypothesis is the second part of the book, which deals with specific phonetic exercises. These are divided into practising the correct pronunciation of the
graphemes, variation in the sound realization of individual graphemes and digraphs, and exercises on stress placement in English. The individual exercises either concern only one of the discussed sounds, or they involve the practice of several sounds at the same time in the summary texts. As already mentioned, this bachelor thesis deals mainly with the sound realization of graphemes and digraphs, and therefore the exercises on the stress placement are unimportant for this thesis even though it plays an important role in pronunciation as it can change the meaning.

Mluvnice současné angličtiny (1972) has a similar problem as Srovnávací fonetika češtiny a angličtiny by Skaličková. This is mainly because it is a relatively old publication, and the information contained in must be checked with more recent sources for its accuracy. The reason is that the language is still evolving and even if some information was true before does not necessarily mean it is true today. The example can be the IPA transcription of English which has changed many times in the last fifty years.

Poldauf (1972) is the third edition of this unique book, which served as the main basis for the topics discussed in this bachelor thesis. Because of the very interesting pronunciation exercises, this work was an important component to support the hypothesis.

### 3.3 English Pronunciation in use

Hancock (2003), is a self-study English pronunciation book that can be also used in English classes with a teacher. The work is divided into four sections (A,B,C,D). The first three sections contain 60 units, each with 2 pages.

Section A titled "Letters and sounds" deals with individual sounds in terms of their pronunciation and written form. The units here are arranged by letters, not by the sounds. As Hancock (2003) claimed this is mainly because it is much clearer for students this way as not everyone is familiar with IPA. This idea was the reason why this thesis focuses on the sound realisation of graphemes, i.e. the process of realisation from letter to sound and not the other way. Each unit is always devoted to two sounds. For vowels, sounds are paired according to their similarity in written form, not according to their potential to be confused in speaking. Consonants are paired according to their same place of articulation. Section A is the most important for this bachelor's thesis. It has served as a basis for confirming the validity of the information given in primary sources.

Section B, titled "Syllables, words and sentences", deals mainly with the association of individual sounds in the formation of words and complete sentences. This section served to confirm primary sources obtained in subchapter "4.1 The syllables".

Section C deals with communication skills and the application of knowledge from the previous two sections.

The last section, D, includes an introduction to IPA, pronunciation tests and a guide for speakers of a specific language in which learners can find out which particular sounds may be problematic because of their mother tongue habits.

### 3.4 Výslovnost angličtiny na pozadí češtiny

Melen (2010) describes the basic rules of English pronunciation in comparison with the Czech phonetic system. Similarly, to Skaličková (1979), he states that by comparing the mother tongue with the English language, correct pronunciation can be more easily achieved. As Melen (2010) points out, for the learner the mother tongue is the only phonological material available to him and by similarities and deviations the correct solution can be found.

The first two parts of the book deal with the basic concepts important for understanding the related material. The segments of the English language that are vowels, diphthongs, triphthongs and consonants are explained. Of particular importance to the hypothesis is Part Two, which discusses theoretically and practically the higher units of speech, including syllables, word stress, and pronunciation patterns of frequently used words. This part of the book served to verify the accuracy of the statements made in the primary sources, especially in the chapter 4, "Relations between graphics and pronunciation in English".

The book goes on to describe aspects of connected speech and introduces the learner to the basic features of the language, which are elision, linking, rhythm, intonation, and the sentence stress. This part of the book is secondary to support the hypothesis, since the thesis deals with the sound realisation of individual graphemes and digraphs, not with the suprasegmental elements of the language.

Melen (2010) mentions the phonemic and phonetic transcription of spoken English. He states that the pronunciation of Czech and English syllables is not always the same, and therefore the assistance of a teacher is necessary to learn phonetic symbols, as it is not possible to distinguish at first sight how a given symbol is read. For a correct understanding of this
bachelor thesis, it is necessary to have a command of phonetic transcription, as the concepts are often explained with examples where the IPA occurs.

For each English pronunciation term explained, Melen (2010) always adds examples and short exercises to reinforce the knowledge. Some of these examples were also used for the theoretical part of this bachelor thesis.

The most common pronunciation mistakes of Czech learners in English are described at the end of the book. This part of the book helped to select problematic graphemes for the practical part of the research.

### 3.5 Fonetika a fonologie českého jazyka

This book by the author (Krčmová, 1984) explains the Czech phonological system and is used in this thesis mainly to explain basic phonological terms such as syllable and the problematics of the Czech stress placement.

## 4 Relations between graphics and pronunciation in English

As Skaličková (1979) states, there is not much relation between graphics and pronunciation in English at first sight. However, there are some patterns concerning English words. In order to understand these basic rules properly, it is necessary to define certain terms first.

### 4.1 The syllable

According to Krčmová (1984), a syllable is the smallest articulatory-acoustic unit of speech that we pronounce. It is therefore the part of a word that usually contains a single vowel and consonants, which are together pronounced as a unit.

Hancock (2003) claims that words can be composed of one or more syllables. For example, in the word "star-fish" we can see two syllables and, in the word, "bu-tter-fly" we can see three syllables. There are also monosyllabic words such as "cat" for example.

Syllables are divided into several types. First, we have stressed syllables and unstressed syllables. Stressed syllable has more features than an unstressed syllable or contains the same features but to a greater extent. These are, for example, the strength or pitch of the syllable pronounced. Stressed syllables are characterised by a variable tone, as opposed to unstressed syllables, which have a more even tone that does not change in intensity. These differences lead to an advantage of the stressed syllables and thus to the production of the stress of words and sentences. The issue of stress placement can be very difficult for Czech learners, since in their mother tongue, the stress is usually at the beginning of the words. The only exception in Czech is the monosyllabic prepositional phrase where the stress moves to the preposition. In English, this is a much more complicated issue, as the stress can occur on any syllable of the word. Shifting the stress can cause misunderstanding or a complete change in the meaning of the word (Krčmová, 1984).

### 4.2 Rules concerning relation between graphics and pronunciation in English

To define general rules about the relation between graphics and pronunciation in English, it is crucial to understand the two types of stressed syllables. These are the graphically open and the graphically closed syllables. Melen (2010) states that a graphically open syllable usually ends with a vowel letter as opposed to a closed syllable which ends with a consonant letter. An example can be the first syllable of the word "bonus", i.e. "bo-". The syllable here is ended
with a vowel letter and is therefore an open syllable. An example of a closed syllable is the monosyllabic word "cat", ending with a consonant.

According to Skaličková (1979) the basic rules about the relation between graphics and pronunciation in English can be summarized in several parts. First, it depends on the type of syllable in terms of stress. A vowel letter occurring in an unstressed syllable is always reduced to $/ 2 /$ or to $/ \mathbf{I} /$. An example is the first unstressed syllable of the word "before", which we read /bə' fôr/ or /bı' fôr/.

As was already mentioned, stressed syllables end with vowels. These can have "long" pronunciation (i.e. for graphically open syllables). In this case, these vowels have the pronunciation we know from the alphabet when spelling. An example can be the word "be", where the grapheme "e" is pronounced as $/ \mathrm{i} /$, or the word "no", where the grapheme "o" is read as /əu/. If the stressed syllable ends with a consonant and is therefore a closed syllable, we will read the vowels as they are written. In this case, the pronunciation is called "short". For example, we pronounce the word "bet" as /bst/ and the word "not" as /not/. The short pronunciation changes only for the grapheme "a", which we read/æ/, for example in the word "cat", and for the grapheme "u", which we read $/ \Lambda /$ in the word "cut". The "short" pronunciation can be also found quite often in open-syllable letters in very common words such as "every, city, have or love". This rule is connected to the history of the English language. Similar exceptions are present at some closed syllables that can have "long" pronunciation. This situation occurs especially when there is a digraph in the word (see Chapter 6 for a more detailed description). For example, the word "coat" pronounced /kəut/, or the word "cues" pronounced /kju:z/ (Skaličková, 1979).

As Skaličková (1979) states, when a suffix is added to the base of a word, it is necessary to double the ending consonant in order to preserve the original closeness or openness of the stressed syllable. An example is the word "bet", pronounced /bat/, where we double the " t ", i.e. "betting". This rule does not apply in the words whose base is ended with two consonants, such as the word "list", which we write "listing" in the past continuous tense.

The last rule in this chapter is the relation between some consonant graphemes and vowel graphemes. These are in particular the letters " r ", " 1 " and "w". When these letters are adjacent to vowel graphemes in words, their pronunciation is given a regular pattern. For example, the written group "ar", is regularly pronounced / $\mathrm{a}: /$, for example in the word "car", or the written group "er", which is usually pronounced /3:/, for example in the word "her". The letter "a" is
in combination with letter " w " change in pronunciation into /o/. An example is the word "water", which is pronounced /wo:tə/. A similar example occurs with the vowel grapheme "l", which also changes the letter "a" to /o/ in pronunciation. An example is the word "tall", pronounced /t $: 1 / 1 /(S k a l i c ̌ k o v a ́, ~ 1979) . ~$

## 5 Grapheme and possibilities of its sound realization

A grapheme is the smallest written form of language that can change the meaning of a word. It can be a letter of the alphabet, a comma, a number, or any individual symbol of written language (Nordquist, 2019).

In this chapter, we will focus on vowel graphemes and the possibilities of their sound realization, which can be significantly more variable in English compared to Czech. This matching of phonemes to graphemes is called grapheme-phoneme correspondence and according to (Poldauf, 1972, p.40), for learning English pronunciation it is necessary to be aware of the possibilities of sound realization of the same graphemes. Writing graphemes on the basis of sound production, or sound interpretation of the grapheme form of English, can be very challenging for Czech learners, as the Czech language partly uses phonetic spelling, i.e. spelling where the grapheme is identical to the phoneme. In English, non-phonetic spelling is present, which is characterised by the fact that one phoneme can be written with two or three graphemes (Poldauf, 1972, p.41)

### 5.1 The grapheme „a"

As stated in (Poldauf, 1972), the grapheme "a" has six types of sound realization. The first type is the diphtong /eI/, which is the same type of pronunciation we use when reading the alphabet. An example is the word "mate", pronounced /mert/. Another type of pronunciation is /æ/. This occurs in the closed syllable of a word and gives us a "short" pronunciation, for example in the word "sandal" we read /sændl/. The pronunciation /a:/, which (Skaličková, 1979, p.41) compares to the Czech "á", occurs for example in the word "park", we read /pa:k/. The reason for this pronunciation, is the already mentioned influence of the neighbouring vowel graphemes, since the written group "ar", gives us regularly /a:/. The fourth type of pronunciation of the grapheme "a" is $/ \mathrm{e} /$. An example of this pronunciation is the noun "hare", we read /hea/. This is followed by the phoneme $/ \mathrm{s}: /$, which can be seen, for example, in the word "tall", we read /to:l/. The last phoneme that can be used to pronounce grapheme " a " is / $\mathrm{p} /$. As mentioned in the chapter (4.2 Rules concerning relation between graphics and pronunciation in English), the vowel "w" changes the written "a" into an o-vowel. For example, in the word "what", pronounced /wvt/.

### 5.2 The grapheme ,„e"

"e" can be pronounced up to six different ways. The first is the "long" pronunciation, for example in the first open syllable of the word "female", we read /fi:merl/, i.e. /i:/. Otherwise, in the graphically closed syllable, we already know from the previous chapter that we read the graphemes as they are written, i.e. the "short" /e/, for example in the word "seven", we read /sevən/. A relatively common pronunciation of the grapheme "e" can also be the diphthong /ıə/, for example in the word "hero", we read /hırəəv/. This pronunciation variation occurs mainly in words in which the grapheme "e" precedes the letter " r ". Other examples can be the words "serious" or "pier". The last common pronunciation of this grapheme is $/ 3: /$, for example in the word "her", we pronounce /h3:/. Less frequent pronunciation options are the short phoneme $/ /_{I} /$, for example in the second syllable of the word "secret", pronounced /si:krit/, and the diphthong /ea/, for example in the word "where", pronounced /wea/ (Poldauf 1972)

### 5.3 The grapheme ,"i"

According to (Poldauf, 1972) there are four possible pronunciations of this grapheme. The first type is the diphthong /aI/. Thus, we will always pronounce the grapheme " i " in the open syllable of the word. This is therefore the same pronunciation as in the alphabet. An example of this pronunciation is the word "bite", pronounced /batt/. Another possible variety of pronunciation is the phoneme $/ \mathrm{I} /$, a "short" pronunciation occurring in graphically closed syllables, which we read as written. An example of this pronunciation option is the monosyllabic word "bit", we read /bit/. The third type of pronunciation is $/ 3: /$. This is how we pronounce the grapheme " $i$ " if it is before the grapheme " $r$ " in the word. An example can be the word "circle", pronounced /ss:kl/. The last type of pronunciation is the phoneme /i:/, for example in the word "police", we pronounce /pə'li:s/.

### 5.4 The grapheme , $\mathbf{o}^{\text {" }}$

The grapheme "o" can be pronounced in seven different ways, while two of them are only rarely used in English. The first type of pronunciation is the diphthong/əu/. This is how the grapheme " o " is pronounced in the open syllable of the word, where it represents the "long" pronunciation we know from the alphabet. An example is the word "go", pronounced /gəo/. This pronunciation is also characteristic of words that end with the grapheme " o ". Otherwise, it is a "short" pronunciation where we read / $\mathrm{p} /$ for the grapheme in the open syllable, for example in the word "solid", we pronounce /splid/. If the grapheme " o " in a word is followed
by an " r ", regardless of whether it is a graphically open or a graphically closed syllable, we will use the phoneme $/ 0: \%$. An example of this type of pronunciation would be the word "lord", we read /lo:d/, or a word with the graphically open syllable "fore", pronounced /fs:/. As we know from the previous chapter, in unstressed syllables the vowel letters are reduced to $/ \mathrm{\partial} /$. This also applies to the fourth type of pronunciation of the grapheme " o ", where it can be pronounced $/ 3: /$, for example, in the word "work", we pronounce it /ws:k/. The fourth type of pronunciation is the phoneme $/ \Sigma /$, which occurs, for example, in the word "love", we read /lıv/. According to (Skaličková, 1979, p. 177), this "short" pronunciation is related to the historical form of English. The last two types of pronunciation of the grapheme " o " are rarely found in English. These are the phoneme /v/, which is mainly used when the grapheme "o" is doubled in a word, for example in the word "book", we pronounce /buk/, and the phoneme /u:/, for example in the word "lose", we pronounce /lu:z/ (Poldauf, 1972).

### 5.5 The grapheme „u"

According to (Poldauf, 1972), the grapheme "u" has six basic types of sound realization. In an open syllable word, the grapheme is pronounced as it is spelled i.e. /ju:/. An example is the word "use", pronounced /ju:z/. The second type of sound realization is the "short" pronunciation in a graphically closed syllable. In this case, we are used to reading the vowel graphemes as they are written, but for the grapheme "u"the pronunciation changes to $/ \Lambda /$. An example is the word "puck", pronounced /pık/. The grapheme "u" can be further pronounced with the phoneme $/ 3: /$, for example in the word "curly", pronounced $/ \mathrm{ks}: \mathrm{li} /$, or the word "fur", pronounced $/ \mathrm{f} 3: /$. This pronunciation occurs especially when the grapheme "e" is before the grapheme " $r$ ". The fourth type of pronunciation of the grapheme " $u$ " is the phoneme $/ v /$, which is found, for example, in the word "bull", pronounced /bul/. The fifth pronunciation is the diphthong /va/, which is not very common. We can see it for example in the word "plural", which we pronounce /plvəral/. The last type of pronunciation is $/ \mathrm{w} /$, which can be pronounced for example in the words "quite", we pronounce /kwatt/, or "language", we pronounce /læygwiḑ/.

## 6 Digraphs

(Nordquist, 2019) describes a digraph as a set of two letters that together form a single sound. There are several types of digraphs in English. Primarily, there are consonant digraphs. These are mainly groups of two consonants representing one phoneme while having only one type of sound realization. A typical example of a consonant digraph is "SH", pronounced $/ \mathrm{J} /$, for example in the word "ship". For consonant digraphs, it is important not to confuse them with so-called "Blends". Those are also two consonant letters, but in spoken language they are represented by two sounds, not by one sound as in digraphs. An example of "Blends" can be the combination of two letters "BL" in the word "black", pronounced /blæk/. For vowel digraphs, i.e. groups of two letters where at least one of them is a vowel, we can encounter with several possibilities of sound realization.

In the following table we will look at several vowel digraphs whose sound realization can be variable and thus in many cases unpredictable for Czech learners. There are three columns in the table. For each vowel digraph the possibilities of its sound realization and examples of words in which the sound is found are listed.

| DIGRAPH | Possibilities of sound realisation | Examples |
| :---: | :---: | :---: |
| „ae" | /i:/, /ea/ | anaemia, aeroplane |
| „ai", „ay" | /ea/, /ei/ | repair, chain |
| „au", „aw" | 1o:/, /a:/ | awkward, aunt |
| „ea" | /ıa/, /i:/, /e/, /3:/ | real, leaf, weather, heard |
| „ee" | /ıe/, /i:/ | pioneer, agreement |
| „ei", „ey" | lea/, lei/, /i:/ | their, obey, receipt |
| „eu"، ,„ew" | /ju:/, /u:ə/ | euphoria, jewellery |
| „e0" | /e/, /i:/, /ıa/ | leopard, people, theory |
| „ie", „ye" | /i:/, /aı/, /ıə/ | field, tier, pierce |
| "oa" | /ヵ:/, /əu/ | board, boat |


| ,0e" | /əo/, /u:/ | roe, shoe |
| :---: | :---: | :---: |
| ,,oi" ${ }^{\text {c , ,oy }}$ | /oı/, /wa:/ | coin, memoir |
| $, 006$ | /u:/, /və/, /v/ | loose, boorish, cook |
| $\begin{aligned} & \text {,ou"" } \\ & ,{ }^{\mathbf{o w}}{ }^{66} \end{aligned}$ | $\begin{aligned} & / \partial v /, / \mathrm{l}: /, / \mathrm{av} /, / \mathrm{v} /, / \mathrm{I} / \text {, } \\ & / \mathrm{s}: / /, / \mathrm{p} / \end{aligned}$ | soul, bought, allow, should, cousin, journey, knowledge |
| ,me"*, ,ni"* | /ju:/, /u:/ | cue, true |

Table 1 Sound realizations of vowel digraphs (Poldauf, 1972, p.247)

## 7 Problematic pronunciation of the English vocalic inventory for

## Czech learners

As (Melen, 2010) states, in the Czech language there are ten simple vowels against the English twelve vowels plus eight diphthongs. This is the first distinctive feature between the two languages. Notwithstanding the fact that there are articulatory differences between these simple vowels, especially, in the position of the tongue, where in Czech there is contact between the tongue and the lower incisors, gums, etc., whereas in English the tongue is rather loose in the mouth, there are far more differences that must be taken into consideration to avoid pronunciation mistakes.

### 7.1 Vowel sounds

As far as the differences of vowel elements are concerned, we may mention timbre differentiation. This feature is unimportant in Czech, but very important in English, as its confusion could cause misunderstanding or complete confusion of the words. Timbre differentiation is a difference in the quality of pronunciation, i.e. in the intensity of the pronunciation of a given sound, not in the length of the sound, as it might seem at first sight. This is particularly the case with the vowel sounds $/ \Lambda-a: /, / \mathrm{p}-\mathrm{s}: /, \mathrm{v}-\mathrm{u}: /$ or $/ \mathrm{r}-\mathrm{i}: /$, for example. The effects of confusing these vowels can be demonstrated, for example, by the word "should", which is pronounced/fud/. If /v/ were substituted for /u:/, the word "shoot" would be pronounced (Skaličková, 1979)

According to (Melena, 2010, p.15), Czech vowels are much less dependent on their position in the word. In Czech, the length of simple vowels is clearly established. In English, the length of individual sounds is influenced by the surrounding consonants. Therefore, Czech learners may be expected to confuse two or more words in which the same pronunciation length is incorrectly used. The main reason for this mistake is not realizing that the English language has up to three vowel durations, which (Skaličková, 1979) describes using the example of the words "bit", with the shortest duration, "bid" with a medium duration and "bead", where the duration of pronunciation is the longest.

As we already know from chapter four of this thesis, in unaccented syllables of English words there is a reduction of vowels to the indefinite vowel / $\partial /$. According to (Skaličková, 1979, p.180), this reduction is difficult for Czech learners, as this sound does not occur in Czech, and so Czech learners often incorrectly replace it with /e/.

### 7.2 Diphthongs

According to (Nordquist, 2019), a diphthong is understood as the union of two vocalic elements of one syllable in which there is a smooth change of sound from one vowel to another. As described by (Melen, 2010), there are eight diphthongs in English, which may have similar counterparts in Czech. These are the Czech diphthongs and especially the conjunction of the vowel and the letter " j ". For example, the diphthongs /eı, эı, aı/ are often confused with the Czech /ej, oj, aj/. However, this connection can never be exactly the same, because of the different quality of the sounds pronounced in these languages. In Czech, the two elements are always pronounced with the same intensity, compared to English sounds, where the intensity can often change depending on the position of the diphthong in the word, and the second element of the diphthong is only slightly hinted rather than fully pronounced. A similar problem arises with the pronunciation of the diphthong/əo/, which is often pronounced as /ou/ by Czech pupils.

Furthermore, it can be very problematic for Czech pupils not to add the sound $/ \mathrm{r} /$ to words in which the grapheme " r " occurs after a vowel. These are mainly words containing a diphthong in which the second element is the unstressed vowel /ə/, e.g. the diphthongs /eә/, /ıə/ or /七ә/. In the Czech Republic, the so-called British pronunciation is taught, which, in contrast to the American pronunciation, does not add this sound (Skaličková, 1979). An example can be the word "her", which is transcribed as /h3:/ in the British pronunciation, while the American pronunciation is /h3r/.

## 8 Research - introduction

The presented qualitative research aims to detect difficult and easy graphemes in terms of predicting their correct pronunciation by lower secondary school learners. Furthermore, the information from the theoretical part of the thesis will be confirmed, especially the frequent problems of Czech pupils in pronunciation of English language due to differences with the Czech phonological system.

The activity for obtaining the necessary information for the research was carried out in a lower secondary school. The research involved nineteen ninth grade pupils and nineteen sixth grade pupils. The reason for selecting the youngest and the oldest pupils of the lower secondary school is to obtain information about the possible difference in the results in terms of their level of English and whether this factor has an influence on the completion of the research.

The worksheet contained 69 words, each representing a particular phoneme or diphthong of each grapheme and digraph discussed in this research. For such an inquiry, it is necessary to choose words that would be less familiar with regards to the vocabulary of the learners, so that they could concentrate only on guessing the pronunciation and not on transcribing the pronunciation they already know.

Due to the large number of respondents, for the most accurate results it is not possible to examine the pronunciation of individual words by recording each pupil's pronunciation on a dictaphone as suggested by Hewings (2004, p.194), but it is necessary to switch to the written form of pronunciation. As the pupils at the local lower secondary school are not familiar with IPA, the recording of pronunciation took the form of a Czech transcription, which the pupils were familiar with at the beginning of the survey. The next part of the activity is already devoted to the individual transcription of the sixty-nine words listed in the worksheet and the simultaneous marking of words unfamiliar to the pupils to guarantee that it is their guess, not their knowledge of the word.

### 8.1 Implementation to the lesson

The research took place in May 2022 at a lower secondary school in the Chrudim district. English is taught there from the sixth to the ninth grade. The research was carried out in two classes after my prior arrangement with the teaching staff, with 19 ninth grade students in one class and 19 sixth grade students in the other. The process itself was carried out by me coming into the classroom and explaining basic information about my research. The explanation was done in Czech to ensure that the points were understood. This was followed by a request to participate in the research, which all the pupils agreed to. As explained in the introduction, knowledge of either IPA or standardised Czech transcription is required to complete the worksheet correctly, which was chosen in this case and explained to the pupils on the board in the first ten minutes, including the indefinite vowel/ $/$ /. Several examples were used to explain the Czech transcription of English words, which were correctly transcribed in front of the pupils. This was followed by the distribution of a worksheets with sixty-nine words and the pupils' individual work in completing the pronunciation of each word started. The whole process took one lesson (45 minutes).

| Mate - | Puck - | People - |
| :--- | :--- | :--- |
| Sandal - | Curly - | Theory - |
| Park - | Bull - | Field - |
| Have - | Plural - | Tier - |
| Tall - | Quite - | Pierce - |
| What - | Anaemia - | Board - |
| Female - | Aeroplane - | Boat - |
| Seven - | Repair - | Roe - |
| Hero - | Chain - | Shoe - |
| Her - | Awkward - | Coin - |
| Secret - | Aunt - | Looseir - |
| Where - | Real - | Boorish - |
| Bite - | Weather - | Cook - |
| Bit - | Heard - | Soul - |
| Circle - | Pioneer - | Bought - |
| Police - | Agreement - | Allow - |
| Go - | Their - | Should - |
| Solid - | Obey - | Cousin - |
| Lord - | Receipt - | Journey - |
| Work - | Euphoria - | Knowledge - |
| Love - | Jewellery - | Cue - |
| Lose - | Leopard - | True - |
| Use - |  |  |

Table 2 research worksheet

## 9 Research - Evaluation of the results

To record the pupils' responses was used a table, which can be viewed in the appendix of this bachelor thesis (Table 24 pupils' responses). During the research 38 worksheets were completed. The total number of responses was 2622 transcripts. For the outcome assessment, for each of the sixty-nine words, the three most frequent responses of the pupils were selected and the percentage of respondents who used the given transcription was calculated. The abbreviation MFA stands for "the Most Frequent Answer", SMFA for "the Second Most Frequent Answer" and LFA for "the Less Frequent Answer". In the following chapter, the results of the research on the different graphemes and digraphs will be discussed. This method of processing the results was chosen for later conversion to percentages of success, which were necessary to produce the final scale of difficulty.

### 9.1 The grapheme "a"

The following table shows the percentage of pupils who correctly guessed the pronunciation of the grapheme "a" for its six types of sound realization. As can be seen in the graph, the most problematic type of sound realization of this grapheme is phoneme $/ æ /$, which was often confused with /e/ or /a/ in the survey. Thus, in most cases the pupils did not observe the correct vowel timbre. Similarly, the diphthong /ea/ confirms Skaličková (1979) rule that, since Czech does not have an indefinite vowel $/ \partial /$ in its words, Czech learners are not sensitive to the timbre of this vowel and therefore often make mistakes. In the research it was replaced by the phoneme /e/ in almost all cases. For the phoneme /a:/, only $25 \%$ percent of the respondents correctly used the vowel letter length. $15 \%$ of them used the British pronunciation and $10 \%$ the American one. The remaining $75 \%$ stated $/ \mathrm{N} /$ incorrectly.

The phonemes /a:/, /p/ and diphtong /eI/ were not considered problematic in this case as they were guessed correctly by half or more of the pupils.


Table 3 The grapheme " a " - results

### 9.2 The grapheme " e "

In the table we can notice that the most problematic sound realizations for the given grapheme were those in which the indefinite vowel/z/ occurs. The reasons why Czech learners commit mispronunciations for words containing the indefinite vowel/z/ are explained in Chapter 7 (Problematic pronunciation of the English vocalic inventory for Czech learners). In other cases, the learners did not have much trouble estimating the correct pronunciation of this grapheme. The pronunciation of /3:/ was tested using the word "her", which was assumed to be known by all learners participating in the research, and yet there were errors in pronunciation. $40 \%$ of the respondents used the American pronunciation with the $/ \mathrm{r} /$ sound added, only $25 \%$ of the respondents wrote the British pronunciation correctly, and the remaining $35 \%$ of the learners incorrectly replaced the phoneme $/ 3: /$ with $/ \mathrm{e} /$.


Table 4 The grapheme "e" - results

### 9.3 The grapheme "i"

The only problematic sound realization of the grapheme " $i$ " in the research turned out to be the sound $/ 3: /$, which was tested on the word "circle". Only $5 \%$ of the pupils indicated the correct pronunciation type. $10 \%$ of the pupils showed an attempt at American pronunciation adding the $/ \mathrm{r}$ / sound but did not observe the correct syllable length and the remaining $85 \%$ of the pupils confused the phoneme $/ 3: /$ with $/ \mathrm{I} /$. As can be seen in the table, the other 3 types of sound realization did not give the pupils any major problems.


Table 5 The grapheme " i " - results

### 9.4 The grapheme " 0 "

There were 3 problematic sound realizations of the grapheme "o". For the phoneme $/ \Delta /$ the pupils made mistakes in the research, especially in its timbre. $25 \%$ of pupils correctly guessed the pronunciation of the word "love" and transcribed it as $/ \mathrm{l} \wedge \mathrm{v} / .25 \%$ of pupils incorrectly transcribed the word as $/ \mathrm{la}: \mathrm{v} /$ and the remaining $50 \%$ confused the phoneme $/ \Lambda /$ with $/ \mathrm{p} /$. Another problematic sound realization in the research was the phoneme $/ 0: /$, for which $30 \%$ of the pupils correctly guessed the pronunciation. Of these, $20 \%$ used the British pronunciation and $10 \%$ used the American pronunciation. The remaining $70 \%$ incorrectly guessed the timbre of the pronunciation and gave $/ \mathrm{p} /$. The last phoneme realization of the grapheme " o " in which mistakes were made was the phoneme $/ 3: /$, which $80 \%$ of the pupils confused with the o-vowel. The phoneme /əu/ involved the use of two different but correct answers, with one part of the pupils using the American pronunciation and the other part using the British pronunciation. Together with the phonemes $/ \mathrm{s} /$ and $/ \mathrm{u}: /$, the pupils had no problems with these 3 sound realisation options.


Table 6 The grapheme " 0 " - results

### 9.5 The grapheme "u"

As we can notice in the table, at first it is clear that compared to the previous vowel graphemes, the "u" grapheme gave the pupils the least difficulty in transcribing the sound realizations. The phoneme /va/ was correctly guessed by $85 \%$ of the pupils, while $70 \%$ transcribed the word using the American pronunciation without adding the indefinite vowel $/ 2 /$ and $15 \%$ used the British pronunciation of the word. The sound realisation of the grapheme $/ \mathrm{w} /$ and $/ \mho /$ did not cause the pupils the slightest difficulty, as all 38 respondents guessed it without any problems, although the transcribed words were marked by some pupils
as unfamiliar to them. $35 \%$ of the pupils incorrectly guessed the timbre of the phoneme $/ \mathrm{ju}: /$. For the remaining $65 \%$, the guess was correct. Almost half of the guessing success was shown for the phoneme $/ N /$, which $45 \%$ of the pupils confused with $/ v /$. The phoneme $/ 3: /$ was again recorded as the most challenging sound realization of the grapheme.


Table 7 The grapheme " $u$ " - results

### 9.6 The digraph "ae"

The digraph "ae" can be described as problematic in terms of the low success rate in guessing its pronunciation for pupils in the lower secondary school. For the phoneme /ea/ only $20 \%$ of pupils guessed the correct pronunciation. Another $50 \%$ attempted the American pronunciation, which, however, does not exist for the word used in research, as it is not used in American English at all. The phoneme /i:/ was guessed correctly by $10 \%$ of the pupils. The remaining $90 \%$ confused this sound realization with $/ \mathrm{e} /$ or $/ æ /$.


Table 8 The digraph "ae" - results

### 9.7 The digraph "ai", "ay"

As can be seen in the table 9, guessing the pronunciation of the digraph "ai", "ay" did not cause the pupils much trouble. The sound realization /ez/ was used correctly by $55 \%$ of the pupils, of which $45 \%$ used the American pronunciation and $10 \%$ the British pronunciation. The sound realization /eı/ was correctly guessed by $75 \%$. For the other $25 \%$ of pupils the phoneme was confused with $/ \mathrm{N} /$.


Table 9 The digraph "ai", "ay" - results

### 9.8 The digraph "au", "aw"

Both types of sound realization of this digraph were correctly guessed by $35 \%$ of the pupils. For the phoneme /a:/, the timbre was often incorrect and $30 \%$ of pupils confused it with $/ \mathrm{N}$ and the remaining $35 \%$ of pupils incorrectly used the pronunciation $/ \partial 0 /$. The phoneme $/ \mathrm{s}: /$ was incorrectly guessed by $65 \%$ of pupils and they used the pronunciation $/ \mathrm{av} /$ or $/ \mathrm{N} /$ instead.


Table 10 The digraph "au", "aw" - results

### 9.9 The digraph "ea"

As we can see in Table 11, the digraph "ea" has 4 types of sound realization. The most problematic sound was the diphthong /ıə/. The pupils often confused it with the phoneme /i:/, which could be used in the tested word "real" without any major problems in communication, but for example, using this phoneme in the word "idea" would result in a complete change of the word. Therefore, this pronunciation guess was marked as incorrect. The guessing of the pronunciation /3:/, /e/ and /i:/ did not cause any major problems for the pupils.


Table 11 The digraph "ea" - results

### 9.10 The digraph "ee"

In the Table 12, we can notice a major difference in the success rate of guessing sound realizations. The phoneme /ıд/ was correctly identified by only $10 \%$ of the pupils. The remaining $90 \%$ either did not use the indefinite vowel/o/ in the diphthong or they confused the phoneme $/ \mathrm{r} 2 /$ with /e/. The sound realization of $/ \mathrm{i}: /$ was correctly guessed by $75 \%$ of the pupils and is therefore not considered problematic.


Table 12 The digraph "ee" - results

### 9.11 The digraph "ei", "ey"

The problematic pronunciation of the grapheme "ei" was only the sound realization /ea/, which was correctly guessed by $30 \%$ of the pupils, $10 \%$ of them using the British pronunciation and $20 \%$ using the American pronunciation. The remaining $70 \%$ confused the phoneme /ea/ with /er/.

As can be seen in the table 12, there was not the slightest problem with the sound realization /ei/ as all the pupils participating in the research guessed it correctly. The sound realization/i:/ was correctly transcribed by $55 \%$ of the pupils and is therefore also considered non problematic.


Table 13 The digraph "ei" - results

### 9.12 The digraph "eu", "ew"

The digraph "eu", "ew" is so far the most problematic in terms of guessing its two sound realizations, which are /ju:/ and /u:a/. Not a single pupil was able to correctly guess the pronunciation of the tested words and thus the research results in a $0 \%$ success rate. As for the sound realization of $/ \mathrm{u}: \partial /$, probably the closest to the correct pronunciation were the pupils who confused it with /u:w/, but even this pronunciation could not be marked as correct. The phoneme /ju:/ was in all cases confused with /ev/.

### 9.13 The digraph "eo"

The only problematic sound realization of the digraph "eo" turned out to be the diphthong/гә/, which no pupil guessed correctly. An acceptable pronunciation could be considered the answer of $5 \%$ of the pupils who confused this diphthong with $/ \mathrm{i}: /$, where $/ 2 /$ is slightly hinted at the end of its pronunciation and it would not cause a problem in communication. As we can see in Table 14 the other two types of sound realization /i:/ and /e/ did not cause the pupils major problems.


Table 14 The digraph "eo" - results

### 9.14 The digraph "ie","ye"

Pupils had difficulty guessing the correct pronunciation of the digraph "ie", "ye" in only one of the three examples of the sound realization. This was the case of the pronunciation /aı/, which was correctly guessed by only $10 \%$ of the respondents. This sound realization was examined on the word "tier". The other $90 \%$ of the pupils confused the diphthong /ai/ with /e/ and /i:/. The other two sound realisations of this digraph did not give the pupils any major problems.


Table 15 The digraph "ie", "ye" - results

### 9.15 The digraph "oa"

The digraph "oa" has two possible sound realizations. The first type is /əu/, which $90 \%$ of the pupils guessed correctly, of which $85 \%$ used the American pronunciation and $5 \%$ the British pronunciation. As for the phoneme $/ \mathrm{s}: /$, only $30 \%$ of the pupils guessed the pronunciation correctly. The remaining $70 \%$ of pupils made mistakes in timbre and used the phoneme $/ \mathrm{p} /$.


Table 16 The digraph "oa" - results

### 9.16 The digraph "oe"

As we can see in Table 17, neither of the two sound realizations gave the pupils any problems in terms of guessing the correct pronunciation. The phoneme /u:/ was correctly guessed by $85 \%$ of the pupils, as was the phoneme /əu/, for which $75 \%$ used the American pronunciation and $10 \%$ the British pronunciation.


Table 17 The digraph "oe" - results

### 9.17 The digraph "oi"

Table 18 shows that the problematic sound realization of the digraph "oi" was only /wa:/, which was not correctly guessed by any student. From this result we can conclude that this sound realization is unpredictable and needs to be learned first. The phoneme /oi/, on the other hand, did not make a single problem for the pupils as they all used it correctly in the word.


Table 18 The digraph "oi" - results

### 9.18 The digraph " $\mathbf{o o}$ "

The most challenging type of sound realization of the digraph "oo" turned out to be the phoneme $/ v /$, which, despite being examined on a word that all pupils marked as familiar, had only a $25 \%$ guessing success rate. $75 \%$ of the pupils again made mistakes in the vowel timbre and used /u:/. The other two types of sound realization of this digraph had a relatively high guessing success rate and are therefore not considered problematic.


Table 19 The digraph "oo" - results

### 9.19 The digraph "ou". "ow"

As can be seen in Table 20, for the grapheme "ou", "ow", there were four types of sound realization that pupils had difficulty guessing. The first mistaken sound realization is the phoneme $/ \mathrm{p} /$, which was guessed correctly by only $25 \%$ of the pupils. The phoneme $/ 3: /$ proved to be the most difficult possible pronunciation type for this digraph and was often confused by pupils with /e/ or /u:/. The third problematic pronunciation type is /av/, which was correctly guessed by only $20 \%$ of the pupils, even though the word under examination was marked as familiar by all of them. The remaining $80 \%$ of pupils confused this diphthong with /oo/. The sound realization $/ \mathrm{s}: /$ was confused with /ov/, or the timbre was incorrectly identified and the pupils used $/ \mathrm{p} /$. The other 3 types of sound realization did not provide much difficulty for the pupils and most of them guessed them correctly. These were $/ v /, / \Lambda /$ and $/ \partial \sigma /$.


Table 20 The digraph "ou", "ow" - results

### 9.20 The digraph "ue"

Table 21 shows us that the digraph "ue" was hardly problematic at all. The sound realization /ju:/ was correctly guessed by $50 \%$ of the students. For the remaining pupils there were mistakes only in the timbre, when the phoneme was confused with $/ \mathrm{jv} /$, or the consonant letter was omitted altogether and confused with $/ \mathrm{u}: /$. The second phoneme realisation $/ \mathrm{u}: /$ was correctly guessed by $60 \%$ of the pupils.


Table 21 The digraph "ue" - results

## 10 Grapheme difficulty scale



Table 22 Grapheme difficulty scale

Table 22 represents the final difficulty rating in the estimating the pronunciation of the twenty vowel graphemes and digraphs examined in the research. For each grapheme, the arithmetic means of the percentages of all possible sound realizations corresponding to one grapheme or digraph was calculated. The percentages shown in the table correspond to the average number of pupils who were able to correctly guess the pronunciation of a given grapheme. According to this table, we can determine which grapheme was challenging in terms of its pronunciation guess for the pupils participating in the research, and which, on the contrary, was simple and easy to guess. For example, $0 \%$ of the pupils were able to predict the pronunciation of the grapheme "eu", "ew" and we can therefore label it as the most challenging one. On the other hand, $85 \%$ of the pupils were able to guess the pronunciation of the grapheme "oe" and therefore it can be considered easy.

The most difficult graphemes were those of which included the phonemes $/ 2 /$ and $/ 3: / \mathrm{in}$ any form, either in diphthongs or individually. Equally problematic for the pupils was guessing the correct timbre of each phoneme. Both of these findings confirm Skaličkova's (1979, p. 180) claims regarding the most common pronunciation mistakes made by Czech pupils.

Pupils of sixth and ninth grades participated in the research, and it was very interesting to observe that the results hardly differed at all. In several cases it was noticeable that the sixth graders answered more correctly than the ninth graders, and therefore we can conclude that at the lower secondary school, age played no role in terms of correct guessing of the pronunciation of English graphemes and digraphs.

## 11 Conclusion

The main idea of the thesis was to simplify the process of learning the pronunciation of English vowel graphemes and digraphs in English words.

The topic was introduced by an analysis of the literature used to point out the possible pronunciation problems of the pupils. This part of the thesis helped to gain information about the possible sound realizations of the same graphemes and digraphs used in the practical part of the thesis and to gain awareness of possible problematic sounds. In order to properly understand the particular points of the research, it was necessary to provide background information about the relationship between graphic form and English pronunciation along with the differences between the Czech and English phonetic inventories.

The practical part of the theses was the actual research. The aim of was to create a scale of difficulty of individual graphemes and digraphs on the basis of the information obtained from the lower secondary school survey to provide a clear idea of what is difficult and what is easy for Czech lower secondary school learners. The practical part also verified the information about the pupils' established problems in terms of English pronunciation contained in the theoretical part.

The thesis is intended for university students majoring in English and English language teachers, who can gain awareness of the challenging graphemes and digraphs on pronunciation and adjust the time schedule for teaching differently problematic pronunciation of different words on the basis of the created scale of difficulty of this research.

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## 13 Appendix

| Mate - | Puck - | People - |
| :--- | :--- | :--- |
| Sandal - | Curly - | Theory - |
| Park - | Bull - | Field - |
| Have - | Plural - | Tier - |
| Tall - | Quite - | Pierce - |
| What - | Anaemia - | Board - |
| Female - | Aeroplane - | Boat - |
| Seven - | Repair - | Roe - |
| Hero - | Chain - | Coin - |
| Her - | Awkward - | Memoir - |
| Secret - | Aunt - | Loose - |
| Where - | Real - | Boorish - |
| Bite - | Leaf - | Cook - |
| Bit - | Weather - | Soul - |
| Circle - | Heard - | Bought - |
| Police - | Agreement - | Allow - |
| Go - | Their - | Should - |
| Solid - | Obey - | Cousin - |
| Lord - | Receipt - | Journey - |
| Work - | Euphoria - | Knowledge - |
| Love - | Jewellery - | Cue - |
| Lose - | Leopard - | True - |
| Use - |  |  |

Table 23 Research worksheet

| Graphic form | sound realization | example | correct IPA | MFA | SMFA | LFA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| "a" | /ei/ | mate | /mert/ | "meit" | "maid" | "mate" |
|  | /æ/ | sandal | /sændl/ | "sandl" | "sendl" | "sændl" |
|  | /a:/ | park | /pa:k/ | "park" | "pák" | "párk" |
|  | /ea/ | hare | /hea/ | "her" | "heə" | "hér" |
|  | 13:/ | tall | /tol/ | "tól" | "tál" | "tol" |
|  | /b/ | what | /wdt/ | "wot" | "wat" |  |
| "e" | /i:/ | female | /fi:meri/ | "fímeil" | "fémeil" | "fmeil" |
|  | /e/ | seven | /sevn/ | "sevn" |  |  |
|  | /ı2/ | hero | /hirrəu/ | "hírou" | "héro" | "hirou" |
|  | 13:/ | her | /h3:/ | "hr" | "h3:" | "her" |
|  | /I/ | secret | /si:krıt/ | "sikrit" | "sikret" |  |
|  | /ea/ | where | /wea/ | "wer" | "wé" | "weə" |
| "i" | /ai/ | bite | /bart/ | "bajt" | "bait" | "bit" |
|  | /I/ | bit | /bit/ | "bit" |  |  |
|  | /3:/ | circle | /s3:kl/ | "sirkl" | "srkl" | "s3:kl" |
|  | 1i:/ | police | /pa'li:s/ | "polís" | "polis" |  |
| "0" | /əo/ | go | /gau/ | "gou" | "gəv" |  |
|  | /b/ | solid | /sblid/ | "solid" | "solit" |  |
|  | 13:/ | lord | /lo:d/ | "lord" | "lód" | "lórd" |
|  | 13:/ | work | /w3:k/ | "work" | "wórk" | "w3:k" |
|  | IN | love | /Inv/ | "lov" | "lav" | "láv" |
|  | /u:/ | loose | /lu:s/ | "lůs" | "los" | "lus" |
| "u" | /ju:/ | use | /ju:z/ | "jůs" | "jus" |  |
|  | /n/ | puck | /pak/ | "pak" | "puk" |  |
|  | /3:/ | curly | /k3:li/ | "kurly" | "kárly" | "k3:li" |
|  | $10 /$ | bull | /bul/ | "bul" |  |  |
|  | /va/ | plural | /pluaral/ | "plural" | "pluarl" | "plůral" |
|  | /w/ | quite | /kwart/ | "kwajt" | "kwuajt" | "kwájt |
| "ae" | /i:/ | anaemia | /a'ni:mia/ | "anéjmia" | "anaemia" | "enímia |
|  | /ea/ | aeroplane | /earaplein/ | "eroplein" | "erplein" | "earoplein" |
| "ai", | /ea/ | repair | /ri'pea/ | "ripér" | "ripejr" | "ripé" |
| "ay" | /ei/ | chain | /tjein/ | "čein" | "čajn" |  |
| $\begin{aligned} & \text { "au", } \\ & \text { "aw" } \end{aligned}$ | 13:/ | awkward | /3:kwad/ | "ókwrd" | "akvrd" | "aukvard" |
|  | /a:/ | aunt | /a:nt/ | "ánt" | "ant" | "ount" |
| "ea" | /гә/ | real | /rial/ | "ríl" | "rel" |  |
|  | /i:/ | leaf | /li:f/ | "líf" | "léf" |  |
|  | /e/ | weather | /weðə/ | "wedr" | "weðə" |  |
|  | 13:/ | heard | /h3:d/ | "hrd" | "hérd" | "h3:d" |
| "ee" | /гә/ | pioneer | /para'nia/ | "pionýr" | "pionér" | "pionýə" |
|  | /i:/ | agreement | /ə'gri:mənt/ | "agríment" | "agrment" | "agrément" |
| $\begin{aligned} & \text { "ei", } \\ & \text { „ey" } \end{aligned}$ | /ea/ | their | /đеә/ | "ðeir" | "đer" | "ðеә" |
|  | /ei/ | obey | /a'bei/ | "obei" |  |  |
|  | /i:/ | receipt | /risisit/ | "risit" | "riseipt" |  |
| "eu", | /ju:/ | euphoria | /ju:'fo:rıa/ | "eufória" | "euforia" |  |
| "ew" | /u:a/ | jewellery | /dzu:alri/ | "dželery" | "džůlry" | "džůwlry" |
| "eo" | /e/ | leopard | /lepəd/ | "leoprd" | "líprd" | "leprd" |
|  | /i:/ | people | /pi:pl/ | "pípl" | "pépl" |  |


|  | /гә/ | theory | /日iəri/ | "Өeory" | "Өóry" | „Biry" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| "ie", "ye" | /i:/ | field | /fi:ld/ | "fild" | "fild" |  |
|  | /ai/ | tier | /tara/ | "tír" | "tér" | "tajr" |
|  | /уг/ | pierce | /pros/ | "pirs" | "pizs" | "pajrs" |
| "oa" | 13:/ | board | /bo:d/ | "bord" | "bód" | "bórd" |
|  | /ou/ | boat | /bout/ | "bout" | "baut" | "bot" |
| "oe" | /əu/ | roe | /rav/ | "rou" | "roe" | "rau" |
|  | /u:/ | shoe | /Ju:/ | "šư" | "šó" |  |
| "oi" | /JI/ | coin | /kJin/ | "koin" |  |  |
|  | /wa:/ | memoir | /memwa:/ | "memojr" | "memór" | "memová" |
| "00" | /u:/ | loose | /lu:s/ | "lůs" | "lós" | "lous" |
|  | /va/ | boorish | /buari]/ | "buriš" | "bóriš" | "buariš" |
|  | /0/ | cook | /kuk/ | "kůk" | "kuk" |  |
| $\begin{aligned} & \text { "ou", } \\ & \text { "ow" } \end{aligned}$ | /ə๐/ | soul | /səul/ | "soul" | "sůl" | "saul" |
|  | /:/ | bought | /bost/ | "bout" | "bót" | "bot" |
|  | /av/ | allow | /a'lao/ | "əlou" | "əlau" |  |
|  | /0/ | should | /Jod/ | "šud" |  |  |
|  | IN/ | cousin | /knzn/ | "kazn" | "kozin" |  |
|  | /3:/ | journey | /d33:ni/ | "džurny" | "džerny" | "dž3:ny" |
|  | /b/ | knowledge | /nolid3/ | "noulič" | "nolič" | "novlič" |
| "ue" | /ju:/ | cue | /kju:/ | "kjü" | "kju" | "ků" |
|  | /u:/ | true | /tru:/ | "trů" | "tru" |  |

Table 24 Pupils' responses

## 14 Annotation

| Jméno a příjmení: | Adam Brázda |
| :--- | :--- |
| Katedra: | Ústav cizích jazyků |
| Vedoucí práce: | Doc. PhDr. Václav Řeřicha, CSc. |
| Rok obhajoby: | 2022 |


| Název práce: | Nápravné výslovnostní aktivity pro druhý stupeň základních škol |
| :---: | :---: |
| Název v angličtině: | Remedial pronunciation activities for lower secondary school |
| Anotace práce: | Hlavním cílem práce je pomoci zjednodušit proces učení výslovnosti angličtiny na druhém stupni základní školy. Práce se nejprve věnuje analýze použité literatury a vyzdvihování problematiky týkající se vztahu grafiky a výslovnosti angličtiny společně s možnými problémy výslovnosti angličtiny českých žáků. Druhá část práce se věnuje výzkumu za cílem vytvořit stupnici náročnosti odhadu výslovnosti jednotlivých samohláskových grafémů a digrafů anglického jazyka, která může sloužit jako podklad pro učitele anglického jazyka. |
| Klíčová slova: | grafika a výslovnost, zvuková realizace, vokalický inventář, stupnice náročnosti grafémů |
| Anotace v angličtině: | The main aim of this thesis is to help simplify the process of learning English pronunciation at the lower secondary school. Firstly, the thesis is devoted to the analysis of the literature used and pointing out the issues related to the relationship between graphics and English pronunciation together with the possible problems of English pronunciation for Czech pupils. The second part of the thesis is devoted to the research in order to create a scale of difficulty of guessing the correct pronunciation of individual vowel graphemes and digraphs of English, which can serve as a background for English language teachers |
| Klíčová slova v angličtině: | graphics and pronunciation, sound realization, vocalic inventory, grapheme difficulty scale |
| Přilohy vázané v práci: | Table 23 Research worksheet Table 24 Pupils' responses |
| Rozsah práce: | 64811 znaků včetně mezer |
| Jazyk práce: | Angličtina |

