TECHNICKÁ UNIVERZITA V LIBERCI
Fakulta přírodovědně-humanitní a pedagogická

# Používání anglických fonémických symbolů k výuce anglické výslovnosti na 2. stupni ZŠ 

## Bakalářská práce

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|  | Tereza Hladíková |
| Autor práce: | Ter |
| Vedoucí práce: | Nicola Karásková, M.A. |

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Faculty of Science, Humanities and Education

# Using English Phonemic Symbols to Teach English Pronunciation at Lower Secondary Schools 

Bachelor thesis

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| Author: | Tereza Hladíková |
| Supervisor: | Nicola Karásková, M.A. |

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Jméno a příjmení: Tereza Hladíková<br>Osobní ćíslo: P14000421<br>Studijní program: B7507 Specializace v pedagogice<br>Studijní obory: Anglický jazyk se zaměřením na vzdělávání<br>Německý jazyk se zaměřením na vzdělávání<br>Používání anglických fonémických symbolů k výuce anglické<br>Název tématu: výslovnosti na 2. stupni ZS<br>Zadávající katedra: Katedra anglického jazyka

## Zásady pro vypracování:

Cílem práce je objasnit problematiku používání anglické fonémické transkripce ve výuce anglického jazyka. Zároveň je cílem provést průzkum současného stavu používání transkripce na 2. stupni $Z S$. Závěry výzkumu by měly být užitečné a aplikovatelné ve všech běžných ZŠ. Práce bude založena na poznatcích získaných z četby odborné literatury. Pro praktickou část práce budou využity výsledky průzkumu mezi učiteli a žáky ZŠ a analýza běžně používaných učebnic pro 2. stupeň ZŠ.

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2) TENCH, Paul. 2011. Transcribing the Sounds of English. Cambridge: Cambridge University Press.
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Nicola Karásková, M.A.
Katedra anglického jazyka


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## Poděkování

Na tomto místě bych ráda poděkovala především paní magistře Karáskové, která mě po celou dobu tvorby práce odborně vedla, především pak za její čas a vhodné připomínky. Dále bych zde poděkovala Radislavu Šplíchalovi a Jakubovi Krejčímu za technickou podporu. Velký vděk patří mému manželovi a celé rodině za to, že mě po celou dobu studia a tvorby práce podporovali a brali ohledy na mé studijní potřeby.

## Anotace + Klíčová slova

Tato bakalářská práce se zabývá používáním anglických fonémických symbolů při výuce na 2. stupni českých základních škol. Fonémická transkripce je prostředek, díky němuž lze poukazovat na obtížné jevy anglické výslovnosti. Zároveň je užitečným nástrojem při samostudiu. Tato práce se skládá ze tří částí: teoretické, výzkumné a praktické. Teoretická část popisuje vývoj transkripce, její podoby a přínos. Výzkumná část je založena na dvou formách dotazníků, ze kterých byla získána data k popisu současné situace na základních školách. V závěru práce čtenář najde praktické rady k výuce transkripce, fonetiky a fonologie. Cílem této práce je přinést aktuální přehled využití transkripce a vyzdvižení jejího přínosu v procesu učení.

Klíčová slova: fonologie, fonetika, transkripce, IPA, vzdělávání

## Annotation + Key words

This bachelor thesis examines the use of the English phonemic symbols in the educational process at Czech lower secondary schools. Phonemic transcription is a means, by which it is possible to point out difficult issues of English pronunciation. It is also a useful tool for self-learning. This work consists of three parts: a theoretical, an exploratory and a practical one. The theoretical part describes the story of the transcription, its forms and its merit. The exploratory part is based on two types of questionnaires, from which data was gathered to describe the current situation at lower secondary schools. At the end, the reader finds some practical recommendations for teaching the transcription, phonetics, and phonology of English. The goal of this work is to produce a current overview of the use of transcription and highlight its merit in the learning process.

Key words: phonology, phonetics, transcription, IPA, educational process

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## Seznam zkratek

IPA - International Phonetic Alphabet
L1 - mother tongue
L2 - second language / first foreign language
L3 - second foreign language
A1 - Basic user - Beginner
A2 - Basic user - Elementary
B1 - Independent user - Intermediate
B2 - Independent user - Upper intermediate

## Introduction

This bachelor thesis describes the current role that is played by phonetics and phonology at lower secondary schools and presents the advantages of using the English phonemic symbols in the teaching of English. My view is that being able to read and use a transcription is useful knowledge which helps learners to acquire better pronunciation of a target language. This work should persuade the reader that transcription is a useful tool to employ in the instruction of English pronunciation, since it may be complicated for Czech learners.

There exist many kinds of standard pronunciation and transcriptions, so it was necessary to decide which ones I was going to use in this work. I chose the Standard British English pronunciation with the International Phonetic Transcription. I reduced the symbols only to the broad transcription. Each symbol represents one and only one speech sound - the phoneme, which can be produced in tiny nuances, which, however, do not change the meaning of the word. I would like to prove that this kind of transcription is applicable at Czech schools.

English is a language whose pronunciation does not correspond with its written form. So, every learner must learn two forms of English - the written one and the spoken one. As "there is no one-to-one correspondence between phonemes and graphemes" producing the correct spoken form of words is very difficult. Although only 26 alphabet letters exist in English, they represent a total of 44 different sounds. The orthography is very irregular, especially if we compare it with Czech writing (Menhard, 1978, 208). All the uncertainty of the realization of the correct pronunciation can be "easily surmounted by the use of PHONETIC TRANSCRIPTION" (Jones, 1922, 1).

As my target group are children aged between 11 and 15, I describe all specific pieces of information in a way that is useful for teachers of this particular group. The phonetic knowledge was reduced to the facts which are applicable for learners at elementary level and which can be observed in the transcription. I focus on differences between Czech and English sounds and their realization in separate words. Although the context influences most sounds as well, I consider this and other detailed factors of pronunciation as a further step after the acquisition of the correct pronunciation of a word in its own form.

The goal of this work is not only to describe the theory of the transcription of English pronunciation, but also to point out its current state of use in schools and demonstrate possible techniques of improvement which can lead to a better pronunciation of the English language. The reader will find interesting results from the survey and recommendations partly based on these results. A part of the work is also an analysis of materials used at schools which are used for teaching phonetics. This work should help especially teachers to improve their teaching styles of phonetics to facilitate their pupils to acquire the correct English pronunciation.

## 1 The story of transcription

### 1.1 The evolution of phonetic science and phonetic transcription

The science of phonetics started to develop in the 19th century in Germany. When scientists realized that the need for visual recording of sounds was growing, they began to create the first systems of transcribing sounds. "It is to Germany that we owe the first attempt to construct a general system of sounds on a physiological basis" (Sweet, 1877, vi).

The findings of German linguists were later published in England, which became the centre of phonetic science. Professor Max Müller was the first linguist who initiated the investigation of phonetics in England by popularizing "the results of German investigation... in the second of his well-known Lectures on Language (1864)" and he "also made use of various essays by our countryman A. J. Ellis - the pioneer of scientific phonetics in England" (Sweet, 1877, vii). Ellis was the first British linguist who examined phonetics from all possible perspectives.

For the topic of transcription, the most important subject of Ellis's investigation is his suggestion of a sound notation, "in which the mechanism of the sounds is most ingeniously symbolized, is not only founded on an adequate analysis, but is also thoroughly practical in character, providing forms not only for printing, but also for writing, both in long- and short-hand, applicable to all languages" (Sweet, 1877, vii-viii). Especially the last point seems very important. We can observe that the unity of transcription has been a problematic point during its whole evolution.

- Today, for the most transcribed words and phrases "the alphabet of the International Phonetic Association ${ }^{1}$ is becoming more and more accepted, but apart from the IPA there are other alphabetic systems as well" (Menhard, 1978, 15). It took a long time for linguists to agree on the use of one general system. In the 19th and 20th centuries, there existed many varieties of transcription, published in many books by various authors. As examples we can mention Bell's 'Visible Speech', 'General Alphabet' of Lepsius or Pitman's 'Phonotypy'. The main goal of creating a phonetic transcription was to invent a system of signs, which "indicate the action of the organs in every case... which can be combined to any extent" (Sweet, 1877, 100). Some of such systems led to an unnecessary arbitrariness and were no longer applicable. The super-temporal idea expressed by Sweet described the main purpose of a transcription: "It is necessary to have an alphabet which indicates only those broader distinctions of sound which actually correspond to distinctions of meaning in language, and indicate them by letters which can be easily written and remembered" (Sweet, 1877, 103). He also suggested that the phonetic alphabet should be universal, "providing symbols not only for all existing, but also for all possible sounds" (172). The present form of the IPA transcription represents such a system,

[^0]especially for the purpose of learning the pronunciation of foreign languages.

If we observe different styles of transcription (even the IPA), we can come across two main styles - narrow and broad transcription. The narrow one describes as many detailed features of pronunciation as possible by an enormous amount of signs. The broad one, by contrast, describes only those aspects of speech which differentiate the word from the others in the language. "To indicate a 'broad' (phonemic) transcription, the convention is to use slant brackets, / /..." (Tench, 2011, $61)$ and this is the style mainly used in this work.

### 1.2 The International Phonetic Alphabet

As mentioned above, the most preferred present system of transcribing speech is the International Phonetic Alphabet. It "aims to provide a separate symbol for every sound used distinctively in a human language... to represent the pronunciation of any word or phrase in any human language. The IPA has grown and evolved over more than a century... with new symbols being added" (Ashby and Maidment, 2005, 2). More specifically, the "IPA does not provide fixed transcription systems for particular languages. It provides a stock of symbols, and principles and conventions for using them" (6). We can see in it the fulfillment of one of two Sweet's conditions mentioned above.

The simplicity of signs probably depends on the writing system of a user's language. "The IPA takes the familiar Latin alphabet as its starting point...

- by using small capitals letters with different meaning from the lower case ones... square brackets are put around phonetic symbols...
- by turning or inverting existing letter shapes...
- by using diacritics, which are dots, hooks, and other small marks...
- by using some letters from the Greek alphabet...
- by inverting new shapes..." (Ashby and Maidment, 2005, 4).

This type of transcription is found in most English vocabularies, course-books, and other English learning materials. The transcription should help a learner to learn the pronunciation properly. If a learner understands the notation, it helps him to acquire the correct sounds in English words. This is the main reason why at least a basic knowledge of transcription should be familiar to all learners.

### 1.3 Spelling reform

The need for a transcription comes also from the fact that English spelling differs from its pronunciation. Menhard explains clearly in his book A Workbook in English phonetics (1982) why the present spelling differs so prominently from its pronunciation. He outlined the evolution of the phonemic "Old English spelling (700-1100 A. D.)" through the influence of French "in the Middle English period (1200-1500 A. D.)" to current English, which "is based mainly on historical and morphological principles; it is highly irregular and contrastive..." (209). The phonological changes were not marked in the stagnation of spelling any more. Later, this diversity led to discussions on the topic of a spelling reform. Some attempts were even successful, but mostly linguists and the majority of society are sceptical towards any changes in the old ways of spelling.

Henry Sweet considered such a reform in his book A Handbook of Phonetics (1877): "...it may be carried so far that the connection between the letters and their sounds becomes to a great extent forgotten - till, in short, the spelling becomes
unphonetic, as in the present English. The only way to cure these evils - which is the object of all spelling reform - is to restore spelling to its only legitimate function, that of symbolizing sounds" (193). But in the same chapter he admits that such a reform would probably not be successful enough: "If the high literary cultivation of the seventeenth and eighteenth centuries, and the consequent fixity of the orthography, not only failed to prevent, but positively encouraged the most sweeping changes in pronunciation, it is certain that the same effects will produce the same causes in the future. No one who has paid any attention to the tendencies of English pronunciation will deny that the following hypothetical changes of pronunciation in the next fifty or sixty years are all possible and some of them extremely probable... " (195). There are also other complicated points discussed in his book, such as the right choice of a new spelling form, the problem with the necessity of overfitting the spelling by adults (179) or the diversity of English in different English speaking countries (196). The consideration of Sweet shows that a spelling reform is not a simple question.

We can though find some attempts to reform English spelling. While these changes brought no permanent results in Great Britain, in the USA the reforms were more successful. "In the USA, The Simplified Spelling Board recommended some reforms of orthography in its Handbook of Simplified Spelling (1919) which suggested about 40 simplifications. But only those listed below have been generally adopted.
a) B.E. "-our" was simplified in A.E. into "-or" (e.g. labor, color, harbor, humor, etc.).
b) B.E. "-re" is spelled in A.E. as "-er" (e.g. theater, center, fiber).
c) B.E. vacillates in the use of "-ize" and "-ise", whereas in A.E. there is only one form "-ize" (e.g. symphatize, organize, etc.).
d) B.E. final "-ce" is replaced by A.E. "-se" (e.g. offense, defense, license, pretense, etc.).
e) B.E. prefixes "em-, en-" are often spelled in A.E. "im-, in-" (e.g. inclose, ingender, intrust, etc.).
f) B.E. ending "-ogue" was simplified into A.E. "-og" (e.g. dialog, pedagog, catalog, etc.).
g) Doubled consonants of B.E. spelling were simplified into one consonant in A.E. (e.g. traveled, woolen, kidnaped, rivaled, program, marvelous, worshiped, etc.)" (Menhard, 1978, 218).

The acceptance of these changes in spelling by American society has broadened the differences between current British and American English from its phonetic level to the written form of the language as well. Teachers should follow their style of pronunciation in correspondence with its written form.

## 2 Advantages of teaching English pronunciation through the use of phonemic symbols

### 2.1 General advantages in using phonemic transcription

It may seem difficult to use phonemic transcription, but it is essential. Once learners acquire the principles of a transcription, they can profit from it their whole life. The IPA is also international and commonly used in the scientific field and in study materials, so I recommend using this kind of transcription as well.

Using a transcription is necessary especially because not every sound of L2 exists in L1 and the other way round. Sometimes signs for these sounds are replaced by some letters used in the mother tongue which sound similar. Alena Skaličková (1982) gives some examples of such consonants: "...the Czech language has no phonetic equivalents to the English sounds [ $\theta, \searrow, \mathrm{w}$ ], or to the so called dark [ 1$]$, to mention yet another. English, on the other hand, does not contain the equivalents of the Czech sounds $\left[\check{\mathrm{r}}, \mathrm{t}^{\prime}, \mathrm{d}^{\prime}, \mathrm{n}, \mathrm{x}\right]$ " $\left(110^{2}\right)$. Among the English vowels which do not appear in Czech language, we can list: /æ, ə, з:, ə๖, ェə, દə, ๖ə/. Being aware of these different sounds helps learners to pronounce words more correctly and eliminate the influence of L1.

Not only does the pronouncing the real sounds of L2 lead to much better pronunciation, but it also helps to reduce the influence of the mother tongue. We probably cannot totally banish our accent, but we can work on parts of L2 like assimilation or stress. These are easily marked in the broad transcription. Because of the wrong assimilation or stressing the false syllable our speech could be

[^1]incomprehensible. But by transcribing, learners can become accustomed to various rules and later they are able to apply them unconsciously.

Another point is that if learners understand the transcription, they are able to expand their lexicon on their own with the sole help of printed or online dictionaries. They can use them as the first step in learning new words or as the second step, after reading or listening to a speech in L2 to ensure themselves about the meaning and the correct pronunciation (including phonemes and stress) of every new word.

The International Phonetic Alphabet is also widely used, so once learners have learnt IPA, they can apply the knowledge in other languages they learn. Every phonetic system is easier to learn, once the learner understands its written record, thus it is true that with starting to learn a new language, learners must extend their knowledge of some new sounds and phonetic rules valid in the target language.

Teachers can also use the transcription to show their students other aspects of speech, such as linking or weak forms of words in informal speech. Although these topics of phonetic science are not applicable for young learners, teachers can prepare them for these steps by getting them used to reading transcribed words and phrases and decoding the phonetic rules used in L2 from it.

### 2.2 Concrete examples where transcription helps learners to acquire the correct pronunciation

### 2.2.1 Voiced / voiceless phonemes

As was mentioned in the introduction to this work, the only aspects of pronunciation which are discussed below are those which distinguish one word from another. To classify such aspects, we must create so called minimal pairs - pairs of
words which differ only in one aspect of pronunciation (voicing contrast / similar sounds / stress).

Most minimal pairs are based on the contrastive system of the English language. By this the sound pairs are meant, such as $/ \mathrm{p} /-/ \mathrm{b} /, / \mathrm{t} /-/ \mathrm{d} /, / \mathrm{k} /-/ \mathrm{g} /$ and others. The contrastive voicing is used only for consonants, but many minimal pairs are distinguished in vowel sounds as well. The different sound can occur anywhere in a word - at the beginning, in the middle or at the end. In the last case, Czech learners may be confused as Alena Skaličková mentions in her book: "Beside the difference in the nature of the contrast of Czech pair consonants (voiced - unvoiced) as compared to the English ones (lenis - fortis), there is another difference in using these opposites. In Czech the contrast of pair consonants is annulled in the final and assimilated position, in English it is retained (Compare e.g. Czech: let [let] - lead [led] with the English: let [let]-lead [led].)" (1982, 115 ${ }^{3}$ ). Moreover, if we pronounce a word in a context, the final sound will not assimilate either: "Compare e.g. the English minimal pair rope [rəup] - robe [rəub] with the Czech words roup [roup] - roub [roup]. The English [p] does not assimilate to the adjacent sounds (upbringing [^рbrıjıŋ]), the Czech [p] can assimilate (chlap zase [xlab zase], uchop ho [uxob ho])" (1244).

Some of the contrastive voicing examples based on Skaličková's textbook (1982) are described below:

- Words differing in contrast between voiced /b/ and voiceless $/ \mathrm{p} /$ : compare the pronunciation of the English minimal pair rope

[^2][rəup] - robe [rəub] with the Czech minimal pair roup [roup] - roub [roup] (124) .

- Words differing in contrast between voiced /d/ and voiceless $/ \mathrm{t} /$ : compare the pronunciation of the Czech words led /let/ and let /let/ with the English ones lead /led/, let /let/, the Czech phrase had sám /hat sa:m/ with the English phrase had some /hæd səm/. (131)
- Words differing in contrast between voiced $/ \mathbf{g} /$ and voiceless $/ \mathbf{k} /$ : compare the pronunciation of the English words pick /pik/- pig /pig/, dock /dpk/ - dog /dpg/, etc. (133) with the final sounds in the Czech words krok /[krok] - grog [grok].
- Words differing in contrast between voiced $/ \mathrm{z} /$ and voiceless $/ \mathrm{s} /$ : compare the pronunciation of the English words loose [lu:s] - lose [lu:z], false [fכ:ls]-falls [f::Iz], pence [pens]-pens [penz] (146) with the final sounds in the Czech words $k a z$ [kas] - klas [klas].
- Words differing in contrast between voiced $/ \mathrm{d} 3 /$ and voiceless $/ \mathrm{t} \mathrm{f} /$ : compare the pronunciation of the English words larch [la:tf] - large [la:d3], etches [etfiz] - edges [ed3Iz] (159).
- The voiced sound $/ \partial /$ and voiceless $/ \theta /$ : For both sounds the letters th are used, so in words like this, that, thing, thumb... it is difficult to decide, which of them should be used. These sounds also do not exist in Czech, which is why learners have difficulties in their articulation and their use in the right words. Foreigners mostly tend to imitate the sound $/ \partial /$ by pronouncing the sound $/ \mathrm{dz} /$ or
even /d/ (188). The voiced / $/$ / sounds more like Czech lisping /z/ (especially in final position, like in words with, bathe, smooth), the voiceless $/ \theta /$ is similar to lisping /s/ (145). However, although these two sounds are "the most unusual in English... some varieties of English don't use these sounds..." (Ashby and Maidment, 2005, 2).
- The voiced sound $/ \mathbf{v} /$ and voiceless $/ \mathrm{f} /$ : Similar to other voiced consonants, also the phoneme /v/ is assimilated in Czech and pronounced voiceless as /f/ at the end of separate words. In English, the voicing is kept as a differing factor in words like "proof /pru:f/ vs. prove /pru:v/, calf /ka:f/ vs. carve /ka:v/" (Skaličková, 1982, 142).

Czech learners find one pronunciation rule especially complex: the assimilation of final consonants in words. Some learners may tend to add some extra sounds (e.g. /ə/), so "e.g. instead of buzz [b^z] - bzukot, the word buzzer [b^zə] - bzučák is pronounced, instead of sad [sæd] - smutný, sadder [sædə] - smutnějsí́, etc..., or the lenis consonants are replaced by the corresponding fortis ones and instead of [b^z], the sound results in [b^s] - autobus, instead of [sæd], [sæt] - seděl is pronounced, etc" (Skaličková, 1982, $187^{5}$ ). Because of the tendency to assimilate, the pair consonants may be wrongly pronounced "(according to the Czech usage), and thus for example backbone [bækbəun] - páteř sounds as [bægbəun], which would have similar meaning to the words „pytlová kost"; similarly the words since the [sins ðə] is wrongly realized as [sinz $\partial ə$ ] or even [sindz dzə] etc. The wrong assimilation

[^3]before［ w ］is also very common，so the phrase like this one［ $\mathrm{\partial}_{\mathrm{IS}} \mathrm{w} \wedge \mathrm{n}$ ］is pronounced as［ðız $\mathrm{W} \wedge n$ ］，and even［dız $\mathrm{W} \wedge n$ ］is not only occasional＂$\left(187^{6}\right)$ ．To explain to the learners the rules of English assimilation is very important in order to prevent them from making such mistakes．

## 2．2．2 Other difficult sounds

The sound $/ \mathbf{y} /$ ：This sound has no pair consonant，but it makes minimal pairs with the sound／n／，e．g．thing－thin，singer－sinner（Skaličková，1982，159）etc．If Czech learners have problems with pronouncing final／ $\mathrm{g} /$ ，＂in practise，dividing Czech words containing［ $\eta$ ］into syllables is effective：［ban－ka，lan－ko］，with holding the sound $[\eta]$ and gradual weakening the following syllable until it is absolutely omitted．－Also，practicing of English phrases with［ $\mathrm{\eta}$ ］followed by another nasal（young man）is considerably helpful＂（160）．If this is not trained， interchanging these two sounds can change meanings of words，e．g．＂［sin］－hřích，or ［sink］－klesat is pronounced instead of sing［sin］－zpívat；only［ræn］－běžel or ［ræŋk］－řád，pořadí is pronounced instead of rang［ræŋ］－zvonil；［løŋgə］－delší is realized instead of longer［løŋə］－toužící etc．On the other hand，the velar［ $\eta$ ］is sometimes applied without the following［g］even in words where［g］it belongs， i．e．in the middle of a morpheme and in the comparative and superlative form of adjectives：words such as finger，anger，hunger，stronger，youngest should be pronounced with［クg］，so［fingə，æŋgə，h＾ŋgə，strロŋgə，j＾クgist］．．．if a Czech speaker learns the independent pronunciation of［ $\boldsymbol{\eta}$ ］，they have a tendency to apply it

[^4]also in those cases where it should be followed by another velar consonant (German learners may show the influence of this language.)" $\left(188^{7}\right)$.

The sound $/ \mathrm{w} /$ : This sound has no pair consonant, but it makes minimal pairs with the sound /v/, e.g. "veal [vi:I]-telecí, wheel [wi:I] - kolo; vale [veil] - údolí, whale [weil] - velryba; vile [vaIl] - bezcenný, while [waIl] - zatímco" (189) etc.

### 2.2.3 Stress

As mentioned above, stress is one of the suprasegmental factors which is not easy to learn for Czech learners. It is caused by the fact that in the Czech language the stressed syllable is always the first one in autosemantic words. The stress is also not so prominent in the Czech language. On the other hand, in English, there is no fixed stress position. It depends on the origin of the word, on its word class or its ending. The main stress (the only one in short words) is called "primary stress. This is marked... with a raised vertical tick at the beginning of the syllable as in: ['piləu] and [bi'ləu]. Other stresses in a word are called secondary stresses and are marked with a lowered tick as in: [,kbns(ə)n'treif(ə)n] and [,Indı,Vizə'bilətı]" (Ashby and Maidment, 2005, 157). In the English language, stress is the main factor which creates the melody of speech. Speech is divided into segments which are bounded by stressed syllables. We recognize them "by a combination of factors: length, loudness and pitch" (154-155).

It is important to stress the right syllables not only because of the melody of speech, but also because some words can make minimal pairs with the only difference being in the stressed syllable. It "may be sensitive to the lexical class of a word, that is, whether it is a noun, a verb, an adjective and so on" (Ashby and

[^5]Maidment, 2005, 159). We can demonstrate an example of such a minimal pair on "two English words import (verb) [rm'pכ:t] and import (noun) ['ımpכ:t]..." (160). The stress in English also indicates, whether one word or a word phrase is said, e.g. "'black 'bird - 'blackbird, 'all 'ways - 'always" (Skaličková, 1982, 257).

### 2.2.4 Vowel sounds (which do not exist in Czech)

- The sound $/ ə /$ : This "short midcentral vowel, termed schwa... is in fact the most frequent vowel in English speech. It is heard, for example, in the first syllable of about, the middle syllable of photograph, and at the end of soda" (Ashby and Maidment, 2005, 74). It also makes minimal pairs with other vowels, so it is necessary to learn this sound. Czech learners usually interchange this sound witch $/ \mathrm{N} /$ or $/ \mathrm{e} /$, despite being able to produce this sound in a long version in situations when e.g. they are thinking about something and it does not come to mind. The syllables containing this vowel can be never stressed.
- The sound /æ/: This short near-open front unrounded vowel is usually replaced by /e/ or / $N /$ sounds, which are familiar to Czech learners. This phoneme is not used in Czech at all, that is why teachers should explain the correct position of articulators in teaching this sound.
- The sound $/ \mathbf{3} \mathbf{I} /$ : Although this long open-mid central unrounded vowel does not exist in the Czech language as a separate phoneme, we know this sound, as it was mentioned above. The symbol used for this sound is $/ 3: /$, however, in some publications
we can find the symbol /ə:/. This might be confusing, as /ə/ is never stressed in comparison to $/ 3: /$. This symbol also exists only as a long vowel. The short opposition would be $/ \partial /$.
- The sound /əu/: This diphthong is usually pronounced as the Czech diphthong /שכ/.
- The diphthongs ending at /ə/ -/еә/, /ェə/, /шə/: If the diphthong is pronounced at the end of the word ending with -r/-re, Czech learners usually pronounce the sound as a long vowel (/e:/, /i:/, /u:/) plus /r/ sound after that. In some publications words like teacher, waiter, creator, fair etc. are transcribed with the phoneme /r/ in brackets (/'ti:tfə(r)/, /'weitə(r)/, /krı'eitə(r)/, /'feə(r)/ (English Plus 1 Workbook, 98). These diphthongs are the most problematic for Czech pupils as my research shows.


### 2.2.5 Assimilation of final consonants

An important fact that should be noticed by learners of English is that: "Pair consonants do not assimilate: neither if a consonant cluster in the middle of a word, nor over their borders: shipbuilding [Jipbildin], ... good time [gud taim], bedside [bedsaid]..." (Skaličková, 1982, 119 ${ }^{8}$ ) etc. This is due to the historical influence on English that the voiced forms of pair consonants are pronounced at the end of words instead of their voiceless forms (119). The false assimilation in foreigners' speech is usually made when:

- Past tenses: There are three possible ways of pronouncing the final - ed in past tenses: /t/, /d/ or /Id/. To decide which sound

[^6]to choose, a simple rule must be applied. The main role is played by the final sound of the infinitive - if it is voiceless, we continue with the voiceless /t/, like in the verb to stop - it ends with the voiceless /p/, so the past tense will be pronounced as /'stppt/. If the final phoneme in the infinitive is voiced, we must pronounce /d/ at the end, like in the verb to close, where the final sound is $/ z /$, we pronounce the past form as /'cləuzd/. This phenomenon is called progressive assimilation. The third option is / $\mathrm{Id} /$ and it is used only when a verb ends with $/ \mathrm{t} / \mathrm{or} / \mathrm{d} /$, so the pronunciation of the whole past form is easier as in the example verb to invite - /t/ $\rightarrow$ invited/mn'vaitid/.

- Plural endings: As in the case of the final -ed ending in past tenses, also the plural ending $-s$ has three possible ways of pronunciation. Because there is strong regressive assimilation in suffixes in the Czech pronunciation, Czech learners usually pronounce a wrong final consonant here as well, meaning that they often interchange voiced /z/ or / $\mathrm{Iz} /$ and voiceless /s/. Using the wrong sound can change the meaning of our words. The rule is the same as in the case of past tenses - the sound of the plural ending is influenced by the final sound of a noun, e.g. if a speaker wants to say the plural form of the word play - plays, the final consonant must be /z/. Nouns of singular ending with a voiceless consonant take the ending /s/ and nouns ending with $/ \mathrm{s} /$ or $/ \mathrm{z} /$ take the final sound /Iz/.
- Verb forms of the $3^{\text {th }}$ person singular: The same rule of progressive assimilation applies to the pronunciation of the shortened form 's in the third person singular. In the example sentence: Kate's not here. She's is in America., there are two versions of its realization. The first 's is /s/, because of the preceding voiceless sound $/ \mathrm{t} /$. The second one is $/ \mathrm{z} /$, because it follows the voiced vowel /i:/.


## 3 Obstacles to using the IPA transcription in class

The purpose of this work is to convince the reader that learning and using phonemic symbols is an advisable way to learn and improve their English pronunciation. However, some obstacles may be found with the use of IPA in class. Some of them are described below as examples.

If we want a teacher to use the phonemic transcription in class, the system of English phonetics must be familiar to them as well as the knowledge of symbols on their own. The reason for the low level of understanding of English pronunciation and its rules may be caused by the fact that many teachers of English at Czech schools did not study English Phonetics at university. These teachers are usually native speakers or Czechs who lived abroad and speak English very well, but they lack the knowledge of basic principles of English phonetic system from the linguistic point of view. Students may learn a good pronunciation by listening to them and imitating the pronunciation, but they cannot benefit from the knowledge and the use of the transcription either from the teacher or by themselves. This situation should change in few following years because of the new law ${ }^{9}$ which applies to teachers in the state educational system. Nevertheless, my research shows that a university education does not guarantee that a teacher will use transcription.

The second obstacle is that many teachers know some rules or facts which were taught at the time they were studying at university, but this knowledge has become obsolete. This is prominent on transcription. During the time of socialism, textbooks by Alena Skaličková were very popular and often used as study materials for students at Czech universities. As an example to show the differences between

[^7]her style of transcribing and the current IPA standard, here are some quotations from her book Fonetika současné angličtiny (1982): "It is common to keep the Czech transcription for the Czech language with only three additional symbols to the alphabet: [ $\mathrm{\eta}] \ldots[\mathrm{x}] \ldots[\mathrm{y}] \ldots$..." $\left(15^{10}\right)$; these symbols are used and taught: /a/, /عə/, /i/, /د/, /o/, /u/ and /3/ (16) instead of the standard IPA /a:/, /eə/, /i:/, כ://, /b/, /u:/ and /з:/. We can see that this style of transcribing differs from the common form used nowadays all around the world.

Another obstacle is that not enough study materials exist in public libraries which would help teachers to supplement their knowledge of phonetics in an easy and quick way. One possible way to perfect their acquisition of the phonetic system and transcription is to ask a university to lend them its textbooks or to search on the internet for contemporary articles or books about this topic. (Furthermore, not every book is online and to buy it might be expensive.) Many teachers may see searching for the information as a long road to reaching a better level of pronunciation and they do not want to spend much time on it.

Nevertheless, some obstacles are not caused by teachers, but they come from the fact that using the transcription in class is not easy to arrange. We should mention time as a significant factor. Teachers usually have to plan every minute of their lesson, because they have a lot of knowledge to impart. Teaching pronunciation by transcribing demand basic phonetic knowledge acquired by learners, which takes time and therefore may seem redundant. However, as was mentioned in the chapter above, it is essential. At the end of this work, there are some suggestions how to use transcription in classes in a time effective way.

[^8]Another problematic factor can be the style and the depth of teaching pronunciation. It is very complicated to distinguish between the pieces of information which are necessary for pupils to understand the transcription and those, which are already too scientific and redundant. This may cause trouble for some teachers. One piece of advice is to use only those signs of transcription which identify the phonemes / aspects of speech which create minimal work and follow the exercises and hints in class course-books.

The last crucial obstacle is that teachers themselves are not sure about the right pronunciation. They might control the transcription in vocabulary but here the time problem would arise, as it is impossible to search for a lot of words during the lesson. To have it prepared before the lesson would mean that the teachers have to spend time searching for words in their free time, which is problematic. However, to be honest, if a teacher feels this to be important to them, they should start to transcribe at least for themselves to improve their own pronunciation.

We mentioned factors like teacher, time and the technique of teaching. All these obstacles can be overcome if the teacher decides that using transcription would be essential for his group of learners. Without an inner motivation, it is very unlikely the teacher would feel comfortable and be successful.

## 4 Research on the quality of phonetic knowledge among teachers and pupils

To obtain an objective overview concerning the current situation of phonetics in lower secondary schools, I decided to conduct research. The main idea was to examine, to what extent teachers and pupils are familiar with phonetics and the English phonemic symbols of the IPA. Tanscription is a visual thing, so I find a written form is the best way of testing. I chose the form of a questionnaire, which allowed me to have well-prepared questions and exercises. For possibly the most effective and correct form of the questionnaire I followed the recommendations from the book Úvod do pedagogického výzkumu (Gavora, 2010).

### 4.1.1 Goals

Setting goals is the first step in all research. In general, I wanted:

- to examine the teachers' approach to teaching phonetics and using transcription;
- to examine the level of familiarity with IPA and with some basic phonetic rules (by teachers and learners as well);
- to reflect the influence of the teacher's style/approach on the pupils' skills.

Furthermore, I added some questions to obtain the data which would help me:

- to reveal connections between the results and the background of lessons. (I wanted to monitor the process of how children become familiar with the transcription and the correct pronunciation or accent.)

The purpose of this research was to gather data which would help me to suggest some recommendations to perfect the way of teaching the English pronunciation in spite of the possible difficulties.

### 4.2 Creating questionnaires

It was arduous to create these questionnaires and I had to rework them many times. First of all, I studied the theory of transcription and searched to see how commonly it was used in school materials, printed dictionaries, online dictionaries and other materials that I came across. I found out that in most cases words were transcribed into IPA, so the learner could come across it many times. Then I had to create a form of questionnaires which would follow my goals and fulfil the purpose of the research.

The question I asked was, whether young learners of English (my target group) are able to read the transcription and benefit from it. The technique of testing was difficult to decide upon. Finally, I designed different types of exercises such as matching the transcribed form with the orthographic one, allowing children to spell the words from the transcription or to circle the correct word with a particular sound. After consulting and testing these possibilities, I decided to choose these kinds of practical exercises: choosing the correct sound (transcribed with the IPA symbols) of the underlined letters in well-known words. In other words, I tested whether pupils were able to recognize the symbol of the sound of a word they knew. This ability is very useful for learners, as it enables them to transmit this knowledge to decode the sound of a new word from its transcription and they become independent in learning new words. If pupils' answers are mostly correct, it will tell us that both words and symbols are familiar to pupils. On the other hand, wrong answers will reveal that
pupils do not know which sound is hidden behind a symbol or that they have difficulties with pronunciation of the basic English words. In this case, learning the pronunciation more correctly (even from the transcription) would be useful.

Concerning the form for teachers I was interested in their approach to teaching pronunciation in many different ways, using the transcription and some other details concerning the lesson, e.g. what kind of course-books they use. The final version of the questionnaire is in appendix 1 at the end of this work.

In the form for pupils I examined their knowledge of the official IPA symbols and I was also interested in their subjective point of view on this subject- whether they feel able to read the transcription, whether they like English pronunciation and which difficulties they find in pronouncing English. The final version of the questionnaire for pupils is in appendix 2.

We can divide the questionnaires into two parts - the first one (practical exercises) is similar for both groups, the second one (questions) mostly differs because it aims at that particular group. The exercises in both versions contain the same words, only the instructions differ, so I can compare the results. The instructions for teachers enable one to find out what kind of transcription they use and eventually which symbols are replaced by Czech letters. The questions cover also some other topics, but all are connected to teaching and learning pronunciation. The results from exercises are easily compared with the IPA standard, on the other hand, open questions are complicated to analyze, because no correct answer exists there.

Because of the quantitative character of the survey, the questions must be easily counted. They were designed in the form a) b) c) d) or circling YES - NO option, so it is easier to plot an average statistic or the most common answers on
a graph. I decided to find a suitable type of a graph for every type of question to keep the form of the summary well arranged for the reader.

After completing the two forms (for teachers and for pupils), I sent copies of the questionnaires to many schools, not only in Liberec. I included instructions such as how many pupil's copies I need, which class I want to test, whether they can help children to understand the questions and so on. The teachers who were asked could decide when they would fill in the questionnaires with their pupils, so I did not interrupt their schedule. After a month I received the results, which are summarized and analyzed below.

### 4.3 Summary and analyses of the results

In this part, the results of teachers and pupils are summarized in graphs and commented upon to allow the reader to be quickly and understandably informed. The individual results of all respondents are recorded in detail in appendices 3 and 4 .

My expectation was to gather the results from at least 10 teachers and their pupils. The questionnaires were eventually filled in by ten teachers and sixty-five children. As two of the teachers did not do the questionnaires with their pupils, I worked with the results of only eight groups of children. The standard group was composed of ten pupils, however three groups were smaller. All the participating children are at the age of fourteen and attend the eighth class. They all have been learning English from the age of eight having begun five years ago in their third grade. The sample of learners is big enough for quantitative research and the number of teachers is suitable at least to outline a general overview.

### 4.3.1 Teachers

## Figure 2: Number of lessons/week

The purpose of this question was to find out whether some groups have more than the 3 lessons/week ordered by law and whether they have better results. Unfortunately, although I gave the teachers clear instructions, lot of them answered from their point of view (as figure 1 shows) and I could not analyze the connection between the amount of English and pupils' knowledge of phonetics. However, the only group we know that has more than 3 lessons per week did not have better results (Figure 1).


```
■
more than 3
    |unclear answer
```

Figure 1: Number of lessons/week

## Figure 1: Student's book

The purpose of this question was to find out which course-books are mostly used at lower secondary schools and to analyze them from the perspective of their focus on phonetics and transcription. The goal was to find out whether teachers have enough materials to teach the basics of the English sound system without preparing too much work on their own. All the teachers but one used British educational materials. The analyses of two course-books most commonly used (Project and English Plus as figure 2 demonstrates) are in chapter 6.


Figure 3: Question No. 1 - Years spent by teaching

The purpose of this question was to find out whether there is some correlation between the years spent teaching and the type of transcription employed. As previously explained in chapter 4 , Czech teachers were thought to use slightly different symbols years ago. According to the answers (see figure 3), it can be seen that most of the teachers are quite young, however, only one of them uses IPA symbols all the time. From the results we can also see that the longer the teachers have been teaching, the more Czech letters they use instead of standard IPA. In comparison, teacher A with the shortest period of practice uses no Czech letters. We can presume that there is a connection between the time spent on teaching and the choice of symbols, but this cannot be interpreted as a rule as teacher C proves.


Figure 4:Question No. 2 - Phonetics at university

The purpose of this question was to find out whether all the teachers had studied phonetics at university. If the teachers without the phonetic course were to have noticeably worse results with their pupils, it could mean that this is the cause of the problem. However, nine out of ten teachers had phonetics at university (see figure 4) and all of them had relatively good results, but the results of their pupils were diverse. Contrastingly, the result of the teacher without a phonetic course was not the worst. We can say that the pupils' knowledge is not based on the results of their teacher but on the way teachers transmit their knowledge to them.


Figure 5: Question No. 3 - Familiarity with IPA

The purpose of this question was to find out whether teachers know the International Phonetic Alphabet. They all know it (see figure 5), but as is described below, there are other problems with teaching phonetics / phonology and the use of IPA. Some of them feel unsure with transcribing. The way they can solve their uncertainty is described in chapter 7.1


Figure 6: Question No. 4 - Kind of pronunciation

The purpose of this question was to find out whether the teachers are aware of their pronunciation of English. The answers should clarify the origin of divergences from Standard British English. Most teachers claimed that they speak British English (see figure 6). This might be based on the pronunciation, spelling or vocabulary. However, from the phonetic perspective, the most problematic phonemes were diphthongs, mostly with the schwa sound (/гə/, /еә/ and /və/) in words with final $-r$, which are typical phonemes for the British accent.


Figure 7: Question No. 5 - Amount of pupils in a class
The purpose of this question was to find out whether small groups of pupils actually exist in schools (see Figure 7) and, correspondingly, whether their results are
better because of a more individual approach. Common sense dictates that the smaller group the bigger opportunity for individual work with a learner and for student talking time. The smallest group (of teacher C) had better results than most of the other pupils, but it is not possible to clarify the connection between that particular group and the amount of learners in it. The sample is too small to deduce clear results.


## Figure 8: Question No. 6 - Kind of transcription

The purpose of this question was to find out whether the teachers use any kind of a transcription and to ascertain whether there are some parallels between their answers and the results of their pupils. Most of the teachers combine the IPA with their own system (see Figure 8), usually Czech letters which have a similar sound. We can presume a connection between the sole use of IPA by teacher C and prominently the best results of his group. On the other hand, teacher G does not use any transcription at all and his group is in the second best position in an imaginary chart. So it is clear that usage of the transcription is not the only efficient way of achieving a good level of pronunciation.


Figure 9: Question No. 7 - Work with dictionaries

This question should find out whether the children have the opportunity to become acquainted with transcription if teachers do not use IPA on their own. From the answers (see figure 9), it seems that it is possible to come into contact with IPA, but we presume that dictionaries are usually used only for the direct translating method (derived from the pupils' answers on question no. 4). Anyway, the fact that $92 \%$ pupils use dictionaries on their electronic devices points out the children's need to use a dictionary.


Figure 10: Question No. 8 - Listening exercises
The purpose of this question was to find out how often the learners are exposed to the pronunciation of native speakers at school. Although less than a half of the
teachers do listening exercises almost every lesson (see figure 10), the attitude of children to the English spoken language is very positive. Almost all of them like the sound of it. Those teachers, who do not teach phonetics separately, should do this as often as possible, because listening exercises made by native speakers (in every course-book, in every lesson) serve as the best example for young learners who have the ability to imitate and learn more accurate pronunciation than adults.


## Figure 11: Question No. 9 - Transcribing vowel sounds

The purpose of this question was to find out which vowel symbols teachers use and whether there are some really problematic sounds. In general, the centring diphthongs seem to be the most problematic. The teachers usually transcribed the words with the rhotic /r/ after the vowel, which is not a feature of RP or they divided the diphthongs into two separate phonemes - a long vowel and schwa. The reason might be that the first vowel sounds in the diphthongs are longer - "In the rare cases in which an intermediate degree is required, this intermediate degree is termed half-long" (Jones, 1922, 104). However, this is not a standard of transcription of the British pronunciation to which they incline.

Another problematic sound was $/ 3: /$.It was usually replaced with the symbols $/ \partial r /$ or $/ \partial: /$. Although the second symbol has the same sound and it is used in some
dictionaries (e.g. The Chambers Dictionary) instead of the standard one, it may is confusing. The $/ \partial /$ sound can be never stressed. On the other hand, the /3:/ sound can occur in a stressed syllable.

It is very good, that the teachers use IPA symbols for the sounds /æ/ and /ə/, which do not exist in Czech. On the other hand, the centring diphthongs and the sound $/ 3: /$ do not exist in Czech either. From figure 11 we can see that in these cases they used less IPA symbols and the success rate is evidently lower. It seems a good idea to use the IPA symbols for all English sounds without a Czech equivalent.


Figure 11: Transcribing vowel sounds
Figure 12: Question No. 10 - Transcribing consonant sounds

The purpose of this question was to find out which IPA symbols are usually replaced by Czech letters and which sounds are the most problematic ones. The results were very good in general. Some of the teachers had problems with /v/ sound at the end of the word five. In Czech we do not pronounce voiced consonants at the end of words, but we do replace them with their unvoiced equivalent. However, for English pronunciation we have to remember the rules of the English assimilation.

From figure 12 we can also see for which sounds some other symbols than IPA
 seem to be a problem, as the children know the symbols anyway and they are able to read them, if they come across them. The results from pupils' questionnaires show that these symbols in themselves do not cause much trouble. For more details, read chapter 5.3.2., question no. 6 .


Figure 12: Transcribing consonant sounds

## Figure 13: Question No. 11 - Correct sound of the plural ending

The purpose of this question was to find out whether teachers know and apply the rule of the progressive assimilation. As we can see in figure 13, if the teachers did make a mistake, it was in a word where the voiced final consonant $/ \mathrm{z} /$ should be. They may be influenced by Czech, where the voiced /z/sound cannot be at the end of a single word. As they had no choice between /is/ and /iz/ in the word buses, they all had the correct answer here.


Figure 13: Correct sound - plural ending
Figure 14: Question No. 12 - Correct sound of the -ed ending

The purpose of this question was again to find out whether teachers know and apply the rule of the progressive assimilation. The most problematic verb was the past form closed (see figure 14). I suppose that this is because of the fact that teachers have problems with applying Czech assimilation of final consonants in general, so they presumed that the pronunciation of close is /kləus/ - with the final voiceless sound and they added the voiceless /t/. However, it ends with /z/ and the ending / $\mathrm{d} /$ has to be added. In the verb invited they chose the sound /It/ and in joined /t/, which again shows the problem with the assimilation.


Figure 14: Correct sound - -ed ending
Figure 15: Question No. 13 - Same / different pronunciation

The purpose of this question was to find out whether teachers can distinguish homophones from minimal pairs and whether they can apply the rules of English pronunciation. A good point is that they all are aware of the fact that stress is a distinguishing feature in English pronunciation (see figure 15). The teachers are also familiar with silent letters. They mostly had problems with words where the final sounds $/ \mathrm{s} /$ or $/ \mathrm{z} /$ play the main role. We can see again the influence of Czech assimilation here. In general, the success rate was not low, but the teachers could try to pronounce such words and others like these more precisely, so the differences are also clear to their pupils, who had, in general, quite bad results from this exercise.


Figure 15: Same/different pronunciation
Figure 16: Question No. 14 - Problems with phonetics

The purpose of this question was to discover the problems teachers found with the teaching of phonetics. The answers were very diverse (see figure 16) and some problems are difficult to solve, like having weak pupils or pupils with dyslexia in the group. The problems with time, materials, IPA symbols and difficult sounds may be overcome by following some of the recommendations in chapter 7. A bad level of pronunciation might be caused by all these difficulties, which are probably apparent in primary schools as well. The ideal state would be if pupils already knew the symbols and basic phonetic rules from primary school. As there is less grammar to learn, teachers could focus more on phonetics. Learning symbols does not have to be boring. Teachers may be innovative and, for example allow the children to draw the words with symbols and then use the pictures in the classroom. One example of such a method is in appendix 5 .


Figure 17: Question No. 15 - Difficulties in using IPA

The purpose of this question was to accurately identify the problems of using IPA at schools. Most teachers think that the symbols are complicated for pupils or that there is again no time to teach the symbols (see figure 17). The truth is that some symbols may be easily replaced by Czech letters, however, pupils will not be prepared for self-learning. In other subjects they are used to learning new symbols, e.g. in mathematics the letters from the Greek alphabet, so it should be possible to work with the transcription as well.

The argument that pronunciation is easily learnt only by listening and speaking is only partly true. Children are usually not able to clearly distinguish slight differences like final sounds of $-s /$-ed endings or stressed syllables. They also cannot easily distinguish vowel sounds in very familiar words, as the chart Q. 5 in chapter 5.3.2. shows. Furthermore, a lot of teachers wrote that they do not use listening exercises every lesson. It is highly presumable that those learning the pronunciation only by listening to the teachers will adopt their accent and probably their typical mistakes in pronunciation as well. The transcription may help the
teacher and weaker students to speak more properly. However, if a group of learners is very good at pronunciation, it is not necessary to use the transcription very often.


### 4.3.2 Pupils

Figure 1: Question No. 1 - Work with dictionaries
The purpose of this question was to find out whether pupils manage to become acquainted with IPA if their teacher does not use it. Although this question aims at their subjective feeling, the result seems more worrying as most of them do not mention work with dictionaries as a part of learning foreign languages at school. So how can they benefit from all the information contained in dictionaries in future if they are not using dictionaries now? This ability is very useful during further study and in the self-learning process. Some practice at school would definitely bear fruit in future. The fact that most pupils state that they do not feel able to understand the transcription in dictionaries confirms the rare contact with IPA.


Figure 2: Question No. 2 - Own electronic dictionary / translator
— Figure 2.1: Transcription in the dictionary

This question should supplement question no. 1. We see in figure 2 that more than $90 \%$ possessed some kind of electronic dictionary. They are not less valuable than printed ones, however, they usually only translate words for their Czech equivalents. This is what children expect of dictionaries. The fact that only in $38 \%$ of dictionaries used show words with their phonetic form (see figure 2.1) demonstrated that the children are not aware of how learning the correct pronunciation is important.



Figure 3: Question No. 3 - Transcribing by learning new words

The purpose of this question was to find out how often pupils notice the transcription written on the board by their teacher. Teachers may transcribe sounds often, but if they do not point them out, their pupils may not pay attention. This is the reason why I asked pupils and not teachers. One positive outcome is that three quarters of all pupils notice the transcription often or even every time (see figure 3). In comparison, the average knowledge of the vowel symbols is $42 \%$ and of the consonant symbols $53 \%$, which does not cover the $3 / 4$ of pupils whose teachers use a transcription. To cover successfully the topic of transcription with pupils, teachers can combine transcribing on the board with the use of study material and the revision of symbols.


Figure 4: Question No. 4 - Ability to read the transcription

The purpose of this question was to get the personal opinion of pupils to ascertain whether they feel able to read the IPA transcription and subsequently derive the correct pronunciation from it. Surprisingly, a majority of $60 \%$ feel unable to do this at all, as figure 4 shows. In other words, after five years of learning English and with maybe only one year ahead, the children are not able to learn new words with their correct pronunciation independently.


Question No. 5 - Question No. 8

In these four exercises pupils circled the correct symbol for the sound of the underlined letters in the words. A precondition for such exercises was to use only the words familiar to the learners. I have chosen the words from course-books at level A1, which are often revised at the following levels and which belong to ordinary speech. Unfortunately, the instructions to circle the correct sound emerged to be not well formulated. Every sound had three options, but after getting the questionnaires back, I realized that some tasks had more correct answers, e.g. in question no. 5. g) (boy: $/ \mathrm{O}: \mathrm{j} / \mathrm{X} / \mathrm{bj} / \mathrm{X} / \mathrm{JI} /$ ). In this example two symbols symbolize the correct sound, but only one of them is the standard symbol used by IPA. Luckily, in the most tasks the options were well designed and only one of them was correct. I decided to plot
only the correct standard symbols on the success rate in the graphs, so it is clear, how successful the pupils were at using IPA.

Figure 5: Question No. 5 - Vowels

The purpose of this question was to find out whether pupils can match vowel sounds with their symbols. The results are not satisfying (see figure 5) in comparison to the teachers. However, if there was a mistake, sometimes there was a connection between the mistake of the teacher and his group. For example, teacher $C$ transcribes the centring diphthongs always with the $/ \mathrm{r} /$ sound at the end and most of his pupils circled in the word here the sound /i:r/ instead of /гә/. Probably the pronouncing of $/ r /$ at the end is more characteristic of the teacher than the sound $/ \partial /$. Another example is teacher $I$ with his transcription /pu:r/ for the word poor. Only $20 \%$ of his pupils chose the correct sound in this exercise and the others circled the sound /u:r/. In general, centring diphthongs were most problematic both for learners and teachers.


Figure 5: Vowels

Figure 6: Question No. 6 - Consonants

The purpose of this question was to find out whether pupils can match consonant sounds with their symbols. The answers were designed in the way that there were voiced and unvoiced consonant pairs if possible. The success rate shows, that consonants are much easier for pupils than vowels (compare figure 5 with figure 6), even though the symbols used by their teachers differ from IPA.

The learners had the biggest troubles with the last two words. They mostly made mistakes in the word treasure and chose the sound $/ 3 r /$. This indicates a similar problem with final $/ \mathrm{r} /$ sound as in exercise no. 5 . The pupils are not aware of the silent $/ \mathrm{r} /$ at the end of words which is replaced by /ə/. In the last word five they were not aware of the different method of assimilation in English, so they made mistakes and their teachers did too. The problems with assimilation are noticeable in the two following exercises as well. In general, if we compare this exercise with others, we can say that consonants are the easiest sounds and symbols for learners.


Figure 6: Consonants

Figure 7: Question No. 7 - Correct sound of the plural ending

The purpose of this question was to find out whether pupils apply the rule of assimilation or whether they have at least the right sense of choosing the sound at the end. As we can presume from the results (see figure 7), they have mostly no idea about the voiced $/ \mathrm{z} /$ existing at the end of words. They mostly circled $/ \mathrm{s} /$ as the answer and did not pay attention to the preceding sound in the words. This may be indicative of the influence of Czech or of the tendency to pronounce English as it is spelled. Although this topic is covered in student's books, teachers (and especially pupils themselves) probably do not pay attention to this phenomenon anymore.


Figure 7: Correct sound - plural ending
Figure 8: Question No. 8 - Correct sound of the -ed ending

The purpose of this question was as well to find out whether pupils apply the rule of assimilation or whether they have the right sense of choosing the sound at the end. As the results (see figure 8) were completely random, it seems that pupils only guessed the answers. Usually they did not choose the sound /d/ or /id/, probably because they were used to pronouncing voiceless sounds at the end. Although this
topic is covered in student's books as well (e.g. in Project 2 on page 35 / in English Plus 1 on page 92), it does not appear to influence the pupils' pronunciation.


Figure 8: Correct sound --ed ending

## Figure 9: Question No. 9 - Same / different pronunciation

The purpose of this question was to check and to see with minimal pairs and homophones whether pupils know the basic phonetic rules. Almost every pair is concerned with a different area of pronunciation. At best, pupils should know these rules or at least apply them unconsciously.

As we saw in two previous exercises, assimilation causes big problems as we see in the first and the last but one minimal pairs (see figure 9). The second and third pairs were less problematic. I presume that children learn these words usually by heart. It is not probable that they would be taught the rules, according to them the final letters -se are pronounced as /s/ in nouns / adjectives and as /z/ in all other words and in verbs. The fourth and sixth word pairs focus on silent letters. The pupils did not recognize the silent letter in the word write, but contrastingly, in word pair know X no the success rate was very high. I suppose that pupils are not aware of
silent letters in general, but they learn the pronunciation of each word separately. It is worrying that $1 / 2$ of them does not distinguish between the phonemes $/ \mathrm{v} /$ and $/ \mathrm{w} /$. In Czech the letters $v$ and $w$ sound identical, but in English they are two distinguished phonemes and the knowledge of them should be already acquired. The last factor is stress. If someone had the correct answer in the last word pair, it was mostly random, but in the group of teacher C who transcribes with IPA every time, almost everyone had the correct answer. We can see that for deeper understanding of the pronunciation, using transcription is useful.

In general, this exercise was difficult for pupils and mostly they guessed or knew the word, but when phonetic rules were tested, they mostly did not apply the rule. I presume that their incorrect pronunciation is not very often corrected by a teacher and they are used to making mistakes in these words.


Figure 9: Same/different pronunciation
Figure 10: Question No. 10 - Positive approach to English pronunciation

The purpose of this question was to find out the attitude pupils have to English pronunciation. A positive approach is an important step to being motivated to learn.
"Motivation is one of the best predictors of... achievement, in some studies, it is a better predictor than general intelligence of students" (Aydogan, 2016, 56). Teachers said that beside many other difficulties, there was no time left for practising pronunciation. On the other hand, almost $100 \%$ of the pupils like the English pronunciation (see figure 10) and they are able to think about their own accent critically as figure 11 shows. My recommendation for teachers is to use this positive attitude to English pronunciation and gain from it as much as possible.


Figure 11: Question No. 11 - Difficulties in English pronunciation
The purpose of this question was to find out which difficulties pupils face in learning the English pronunciation. I offered some options and left a free space for additional notes.

Mostly, they find complicated those sounds which do not exist in Czech (see figure 11). Teaching correct pronunciation is a difficult task and it should be taught at primary school with aids which help the learner to become conscious of the shape of the mouth, the position of the tongue and the strength of the airstream. Such training may be fun and it is very helpful at the same time. For the second biggest problem-more fluent speech, teaching linking sounds and practising the pronunciation and rhythm of whole sentences may be useful. The third most
commonly circled difficulty was the difference between spelling and pronunciation. Although there is some regularity, a lot of words must be learnt with both their written and phonetic forms. The number of pupils who find this difficult is, however, not as high as I expected.

Other difficulties were mentioned: eed in past tenses, letter $r \mathrm{X}$ and the different pronunciation of /r/ from Czech, the difficulty and uselessness of using transcription (for long words), remembering pronunciation and that the same words / letters have various possibilities of pronunciation. Not all of these difficulties may be eliminated by using transcription, but all of them can be reduced by spending more time on teaching phonetics in general.


### 4.4 Final assessment

This research was intended to present an overview of teaching and learning phonetics at lower secondary schools. Although the answers were very diverse and it
seems that there are no clear parallels among them, the goal was to find any possible connection between the teacher's knowledge or their way of teaching and the results of their pupils. The amount of respondents was also not as large as I expected at the beginning, nevertheless, these groups serve as example samples and outline a possible perspective on the subject matter.

The research shows that it is not easy for teachers to focus separately on teaching phonetics and that they are convinced about the satisfying unconscious way of learning it. In general, IPA transcription is not popular among teachers, although they are able to use it. The system seems to them too complicated for pupils, so they prefer the easier system made of well-known Czech letters. For time reasons they do not transcribe very often and do not prepare pupils for being independent in learning pronunciation. The core of the problem seems to be rooted in primary schools where this knowledge should be acquired, rather than at lower secondary schools, where there is no time left to start from the beginning. The teachers' approach can be summarized by saying that this topic does not play an important role in their lesson plans.

The research also showed that pupils normally have a positive attitude to English pronunciation, but mostly they do not feel able to understand it in the transcribed form. Less than $50 \%$ of the pupils surveyed had a success rate of $60 \%$ or over and the pupils made mistakes not only in the words aiming at some rule, but also in the words that are learnt by heart already at level A1. The most problematic factor was the influence of Czech assimilation and the final /r/ sound. This is mentioned by Skaličková (1982) as one of the most common mistakes made by Czech learners: "Czech speakers often wrongly add [r] to the vowel after which it is written. For example, the English parky... is pronounced as the Czech párky,
although the pronunciation should correspond more to the Czech páky. Czech speakers mostly pronounce [r] in the so called long mixed vowel (like in words her, bird, first etc.)..." ( $186^{11}$ ). In some exercises it was not possible to prove any connection between the results and the knowledge of rules, as it seemed that the children only guessed.

However, sometimes there is to be found a mistake common to the majority of the group, so we can presume that that sound / rule was not taught at all or that it is not corrected by the teacher. Sometimes we can find a correlation between the mistake made by a teacher and the low success rate of the pupils with that exercise. It indicates how pupils easily learn to imitate the teacher's pronunciation even with his / her mistakes.

If we were to analyze the best group (of teacher $C$ ), we would have to highlight the fact that the teacher really places emphasis on teaching the correct pronunciation. The teaching of phonetics also seems well structured in this case. The pupils knew all the IPA symbols and to some of them most of the rules (except the assimilation) were familiar. However, the teacher and the group had problems with $/ \mathrm{r} / \mathrm{x} / \partial /$ sounds and with assimilation as well, as the rest of the respondents.

On the other hand, we can have a short look at the worst (and smallest) group of respondents. The results of their teacher were also very bad, so we can see the connection here. Although they use dictionaries, transcription is not familiar to them, so they are not able to learn new words properly without a teacher. The fact that $2 / 3$ pupils mentioned the difference between the graphic and spoken form of the English as the biggest problem proves that using a transcription would help them.

[^9]The third pupil wrote that sounds not existing in CZ are the most difficult and probably he would be not the only one from the class with this view. Phonetic exercises seem almost necessary for this group. Unfortunately, their teacher finds so many problems in teaching phonetics that it is highly improbable he/she would focus on phonetics later.

The data about the background of the lesson show that the educational process continues mostly in a traditional way - it means that the size of the class is mostly 11-15 pupils, the main part is the work with a course-book with the focus on grammar and that there is no time left for some special activities concerning phonetics.

## 5 Analysis of course-books used at schools

In this section of the thesis I evaluate the appropriateness of those course-books which are mostly used at lower secondary schools (based on the results from the questionnaires) from the phonetic point of view. Both course-books are based on the British Standard English, which corresponds well with the British accent mostly spoken by teachers. But first of all, the requirements given by authorities are described.

### 5.1 The level of English required

In the beginning, the level of English required should be clarified. In the Czech republic, the structure of education at elementary and lower secondary school is mostly defined by the universal document Rámcový vzdělávací program (RVP). In this document, each subject is described from two points of view: the latest start of learning the subject with its minimal time allocation and the level of final achieved skills. The amount of lessons, chosen materials and the curriculum can be modified by each institution individually. This is described by the document Školní vzdělávací program (ŠVP). It helps parents to get an overview regarding the way how the school teaches its children and this helps them to decide whether they will send their child to that particular school.

In general, the first foreign language (L2) must be learnt at least from the third grade and the pupil should reach level A1 at the end of elementary school. At the end of lower secondary school the language skills should be at level A2. The learning skills which should be acquired are described in all four parts of language: listening, speaking, reading and writing. There is only a short note concerning phonetics:

Elementary school:

- "Curriculum: phonetic and graphic form of the language - phonetic symbols (passive knowledge), basic knowledge of pronunciation, the relationship between the spoken and the written form of words" (RVP, 2016, $26^{12}$ ).

Lower secondary school:

- "Curriculum: phonetic and graphic form of the language-developing a sufficiently comprehensible pronunciation and the ability to distinguish by hearing the phonological aspects of the language system, sentence and word stress, intonation, and mastering the spelling of the acquired vocabulary" $\left(27^{13}\right)$.

The English language does not have to be taught at school, but usually it is and it is even the first foreign language. Since the school year 2013/2014, the second foreign language (L3) must be taught at lower elementary school as well. The latest start is in the eighth class and the final level acquired is the same as English L2 at the final level of elementary school. In conclusion, if English is taught, all children should reach at least the level A1 upon finishing the lower secondary school.

### 5.2 Project

This edition is made of four student's books with CDs and workbooks which cover levels A1 up to A2-B1. As was described above, pupils should reach level A2 at the end of lower secondary school. It means that all these books are suitable for

[^10]teaching children from the third up to ninth class. The fourth book is optional but definitely recommended for advanced groups of learners.

In all these student's books we can find short pronunciation hints in every lesson. Almost on every double-page, there is a short exercise on phonetics. Here is a short list of subject matter which is covered in these four publications:

Project 1 (Level A1)

- all IPA symbols with examples of the sound in words
- rhyme
- word /sentence stress
- intonation
- similar sound - e.g. /f/ $/ \mathrm{X} / \mathrm{d} 3 /, / \theta / \mathrm{X} / \partial / \ldots$
- the sound / $\partial /$

Project 2 (Level A1-A2)

- spelling X pronunciation
- converting IPA symbols into words
- -es ending in verbs
- -ed ending in verbs
- syllables in words
- $\quad$ one letter $=$ many possible sounds - e.g. $a=/ æ / X / e i / X / a: / X / b /$

Project 3 (Level A2 (-B1))

- diphthongs
- voiced / unvoiced phonemes
- weak / strong forms of words

Project 4 (Level A2-B1)

- word stress in verbs
- minimal pairs

Type of exercises:

- listen and repeat the sound / the rhyme / the word stress...
- match the words to the sound
- put the correct sound to the words
- put the words in the correct column
- match two words with the same sound
- tongue twisters
- decide whether these words have the same sound
- separate phoneme with examples / couple of phonemes to compare with examples
- write your own example words of the sound
- read the IPA symbols and spell correctly the word
- decide whether the sound is $\mathrm{X} / \mathrm{Y}$
- match the symbols to the parts of the word in bold
- mark the word stress / the stressed syllables

The information in the books is presented in logical sequences. In the first student's book, there is a list of all phonetic symbols used by IPA with an example word transcribed into IPA. This list is not to be found in the following books, so the teacher should use copies of this list for his pupils if they do not learn from the beginning of this edition. There is a lot of basic material in the first book. In the following publications, less new information is presented in order to revise the subject matter already known. Furthermore, in every workbook, there is a list of vocabulary and all the words are transcribed into IPA, which saves teacher's time. A part of the package is a CD with each book, where the pronunciation of native
speakers is recorded, so the teacher does not have to be unsure about teaching the correct accent.

The exercises are created to help the learner to acquire the knowledge of phonetics at first passively, but later they are expected to acquire some productive skills. Every exercise / table takes no longer than five minutes, so it is not time-consuming if the lesson is well-prepared. Even later learners are not asked to transcribe words into IPA, but they are always exposed to the work with the symbols.

By using this book learners become familiar with all the symbols and a basic knowledge of phonetics, so they should be able to learn the pronunciation of new vocabulary by themselves without obstacles to reading the transcription. We can say that this edition prepares learners to self-study well, which is very important.

### 5.3 English Plus

This edition is made of four student's books with CDs and workbooks as well as the Project edition, but the levels which are covered differ. The range is from A1 up to B1-B2. It means that probably only the first two (maximum three) books are going to be used at elementary and lower secondary school.

In comparison to Project, the amount of exercises on phonetics is noticeably reduced. There is no mention about phonetics in any student's book, but in every workbook, there are three pages at the end full of exercises on phonetics. They are usually connected together, so it means that teachers need much more time if they decide to fill them in with their pupils. Here is a short list of subject matter which is covered in all four publications:

English Plus 1 (Level A1)

- syllables
- the sound /ə/
- third person in singular $-s / s / X / z / X / ı z /$
- the ending -ing /in/
- /ı/ X /i:/
- the ending -ed /d/ X /t/ X /id/
- diphthongs
- sentence stress and rhythm

English Plus 2 (Level (A1-) A2)

- weak forms
- word stress
- future time 'll
- recognising contractions

English Plus 3 (Level (A2-) B1)

- word stress in compound nouns
- vowels
- linking
- silent letters

English Plus 4 (Level B1-B2)

- revising

Type of exercises:

- listen and repeat the sound / the rhyme / the word stress...
- first, do the exercise and then listen and check
- put the words in the correct column
- tick the correct option A / B
- match the pairs of words with the same sound
- write your own examples
- listen and underline / the sound XY / the stressed syllable...
- choose the word with / without the sound XY / the same sound...
- cross out the consonants that we do not pronounce
- which form / sound / ending do you hear A / B
- choose the correct option to complete the rule

It might be seen as an advantage that all the phonetic exercises are in one place. It is also good that every lesson covers only one topic. However, as the exercises of each lesson are connected together in terms of their content, it is better to complete the whole phonetic part at once, which is time-consuming. This might be a reason to postpone this and finally do less work on this topic. All the vocabulary is transcribed into IPA and in every workbook, there is a list of the symbols and the example words before the vocabulary part. The sound is neither underlined, nor highlighted, however, the examples are simple, so the connection between the symbol and letters is clear. A part of the package is also a CD with each book, where the pronunciation of native speakers is recorded.

The exercises are not structured with respect to level of difficulty, for example from basic knowledge to more complex topics. Not all complicated phonemes are discussed in the four workbooks, but the topics which were already discussed are often revised. Some exercises are designed in the way that pupils should begin to fill the exercises without previous listening or an explanation, so teachers have to clarify the subject matter by themselves.

Nevertheless, by using this edition, pupils should become familiar with all IPA symbols and also with basic rules of English pronunciation, so this edition can prepare learners for self-learning of new vocabulary correctly as well.

## 6 Suggestions to improve the comprehension of English pronunciation

### 6.1 Using IPA transcription

The research indicated that there seemed to be a connection between the use of IPA transcription and better results in awareness of the correct pronunciation. The best results were with the group of the teacher who uses IPA symbols and transcribes the pronunciation almost every time. To teach like this, the teacher had to overcome problems with time and the system of the IPA symbols.

The biggest problem in teaching pronunciation mentioned by teachers was time. Almost every lesson, there are some new words in the course-book which are not in the vocabulary part of the book. From my experience, teachers write such words (with their translation) on the board immediately and pupils copy them into their own vocabulary books. A solution to gain time would be to add the pronunciation to the word, teachers could allow the children to do some activity on their own and in this time they could add the transcription to the words already discussed. If pupils would take notes of these new words not immediately, but at the very end of the lesson as a revision, they could learn their graphic and phonetic form as well.

The second difficulty mentioned was the system of the IPA symbols. As was already explained, using the IPA symbols is necessary in cases when the sound does not exist in Czech. If teachers are not sure about the correct pronunciation or its symbols when transcribing, they can always use a dictionary (or the web page for transcription: www.lingorado.com/ipa/), where words are always written with their
pronunciation. In the course of time, they, as well as their pupils, will acquire the symbols and they will also feel more sure in transcribing.

The IPA transcription should be taught with the goal to reach at least the level of the ability to read the transcription. Teachers are familiar with the IPA and, in general, they can use it, as the research showed. If pupils need to learn it at first, one possible way is to use phonetic materials in course-books (see chapter no. 6) or to do phonetic warm-up exercises. In future, the ability to read the symbols and the whole transcribed words will help children to make progress in phonetics.

### 6.2 Using dictionaries

Using dictionaries during the lessons may be another helpful tool to enable pupils to become acquainted with the written form of the pronunciation. As we read in chapter no. 5.3.1., almost all student's books used at schools are British and their vocabularies use the IPA transcription. However, the British materials may differ from the American ones in the pronunciation and its transcription. This is to be found also in British and American dictionaries (Šuštaršič, 2005, 88).

As the children are older, they are expected to work with dictionaries independently. The fact that dictionaries work for translating words and common phrases (bilingual dictionaries) is well-known, but they offer more than that. They present the pronunciation (in online dictionaries with the audio as well), connotations, grammatical information about the word, synonyms and so on. Occasionally teachers should allow the students to do some exercise based on searching information from dictionaries. This can be a pleasant change from the usual schedule and furthermore, it teaches learners to work independently on their vocabulary.

Here is an example of such an exercise. This example is based on the topic: Modal verbs and it requires working with a printed / online dictionary (e.g. Cambridge).

- Practising the modal verbs: can, may, shall, will, must
- Tools: online Cambridge dictionary
- Goal - to find: the pronunciation, the meanings, three example sentences from the vocabulary, two individual sentences (a question + an answer), three most common words from its word field with their meanings
- Step 1: The teacher divides the pupils into groups and gives one verb to each group. (max. 1 min.)
- Step 2: The teacher gives the (written) instruction what are the pupils supposed to do and to find. (max. 1 min .)
- Step 3: The teacher controls the activity and helps the pupils if they are lost. ( 5 min .)
- Step 4: The teacher discusses the answers together with the pupils. (3 min.)


### 6.3 Listening exercises with transcript

Learning pronunciation by listening to native speakers is also a very efficient technique. The important factor is that pupils can learn the correct pronunciation with a proper native accent. By listening they may notice the pronunciation of the English phonemes, the intonation, the rhythm, the linking and other features.

A practical type of exercise with focus on pronunciation would be to listen to the record with a transcript. For example, the article Bored with computer games...?
on page no. 110 (English Plus) is recorded by a native speaker and this tape takes only 2:09 minutes. Listening the first time without the text, then once more with reading the text at the same time would prepare pupils for the last step which is reading the text by the pupils themselves with a focus on imitation of the native pronunciation, containing the correct spoken form of words, linking, rhythm, intonation and others.. The tape can be paused after every two sentences, so it is easier for pupils to copy it. It is possible to spend only about 10 minutes on such an exercise and from the long-term perspective, it will positively influence pupils sensitivity to English pronunciation.

### 6.4 Phonetic warm-up exercises

Phonetic warm-up exercises are recommended especially for younger learners, when they start learning a new language. (Podrápská and Matouchová, 2004, 18-19) However, a short warming up is very useful for advanced learners as well. It helps to switch the mind to English and to set the speech organs for articulating the English phonemes. The goal of the warm-up can be to improve the intonation, stress or any other phonetic feature. Such an exercise should be based on the new vocabulary used during the lesson. Practising pronunciation on funny sentences / word chunks can help learners to acquire the new words faster with the correct pronunciations.

Here is an example of such an exercise. This example is based on the article Feel the Fear! on page 80 in the student's book English Plus 2.

- Practising the phoneme: /Іә/
- Words: fear, phobia, weird, really, idea
$\rightarrow$ Having real phobia is a weird idea.
- Step 1: The teacher writes the phoneme on the board and presents the phoneme practised - how it is pronounced, it is named and so on. (max. 1 min.)
- Step 2: The teacher writes the sentence on the board and highlights underlined, colourful...) the letters where this phoneme appears. The translation of words is recommended. (max. 1 min .)
- Step 3: The teacher reads the sentence slowly aloud. Pupils can imitate only those sounds which they hear. (15s)
- Step 4: The pupils read the sentence twice aloud together with the teacher. (30s)
- Step 5: All / Some pupils read the sentence one by one. ( $2,5 \mathrm{~min}$.) This short phonetic warm-up exercise takes no longer than five minutes and pupils learn four example words with this concrete phoneme. All of these words are used in the article and three of them are a part of the lesson vocabulary. Spending these few minutes on this exercise helps pupils to learn / revise a typical English phoneme and the vocabulary at the same time.


## Conclusion

The aim of this final paper was to explore and describe how the English phonemic symbols are currently used at lower secondary schools in the Czech republic. The main method used to gain an overview was the gathering of data from the questionnaires filled in by teachers and their pupils. Other source included the study materials usually chosen by teachers which I analysed from the perspective of transcription. The theoretical part provided the background information for this topic.

The questionnaires, which served as the main source of information, aimed at finding to what extent the phonemic symbols function as a part of the process of teaching and learning English. Beside the usage of the symbols, the knowledge of basic phonetic rules was tested and additional questions were added to provide the background information. Although the sample was not as large as expected, after analysis, it was possible to draw conclusions as to the condition of the teaching and learning of phonetics in lower secondary schools.

The assumption was that the level of phonetic knowledge is very low and that pupils are not familiar either with the system of English phonemic symbols, or with the basic rules of English pronunciation. This, in my opinion, was confirmed both by the teachers, as they admit that teaching phonetics and transcription is not an essential topic of their lessons and by the pupils, as their success rate was unsurprisingly low.

However, all pupils do have a chance to become acquainted with transcription in some way. Most of them are learning from course-books where words are transcribed in the vocabulary section. Many of them also use online / offline dictionaries in their electronic devices and again, at least some words are transcribed there as well. We can say that the knowledge of the symbols could be at least passive,
which by itself would not be a problem. However, what is worrying, is the fact that $60 \%$ of pupils do not even feel able to read the phonemic transcription. We can conclude that passive contact alone with the transcription with no explanation nor practice is not efficient, because it does not enable pupils to learn the pronunciation.

By contrast, the best group of pupils is worth mentioning, as it proved the connection between teaching, the active use of phonemic symbols and the consequent awareness of the correct pronunciation of the English words. Although they had the best results, not all of them felt confident in reading the transcription and what is more interesting, almost all of them mentioned more than one difficulty in learning the English pronunciation. This may point to the fact that they already have extensive knowledge and so they see problematic issues in the spoken form of English. Be their knowledge conscious or unconscious, focusing on phonetics during the lesson definitely brought provable good results.

The secondary aims of this work were also to help those who are interested in this topic by pointing out the main difficulties in teaching phonetics and by recommending some possible activities in order to overcome these obstacles. The third chapter of the theoretical part provided some concrete examples in which the knowledge of transcription can be used to teach the correct pronunciation. The last chapter provides practical advice on how to teach transcription and pronunciation. These conclusions were based both on my own teaching experience and on the expert's findings.

As mentioned in the beginning of chapter 5, transcription is a visual matter, so it is useful to test it in a written form. On the other hand, knowledge of the right symbols does not necessarily imply the correct production of the spoken form. The opposite approach, for example testing the ability to pronounce words and reading
the transcription with a recording, could be an effective method for further research as well.

During the gathering of the data, I realised that the phonemic symbols are not a favourite method in teaching the English pronunciation because of their complexity. For further research, it might be interesting to compare two normal school classes with the same conditions, where one teacher would follow his/her usual teaching style and the second teacher would focus additionally on phonetics and bring my findings into practise. This project would take a long time but it might be interesting to compare, how much the awareness of the phonetic rules and the pronunciation itself would differ between these groups and whether it is possible to manage the teaching of the required subject matter and pronunciation as well.

In conclusion, we can summarize that the English phonemic symbols are not generally used to teach English pronunciation and that the level of their knowledge is relatively low among the pupils. The symbols are broadly used in study materials and the transcription is unified; it means the IPA transcription is mostly chosen. However, without teaching the children how to be versed in the transcription, they are not able to learn it and benefit from it by themselves. On the contrary, improving the pronunciation skills of learners of English would be facilitated by integrating the transcription into the lessons, as it enables pupils to tackle and succeed with difficult issues of pronunciation that exist within the realms of the English spoken language.

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| Bakalářská práce | Technická univerzita v Liberci | Tereza Hladiková |
| :--- | :--- | :--- |

## Research on knowledge of phonetics and using phonetic transcription

## (Teachers)

Dear teacher, I would like to ask you to fill in this questionnaire. The goal of this survey is to find out, on which level the knowledge of phonetics is familiar to teachers and how the transcription is used in classes. The answers will be anonymously used for a general overview, what the situation at Czech lower secondary schools is like. Please, be honest with yourself.

Date:
School:
Amount of English lessons/week:
Which students books do you use at lower secondary school?
$\qquad$

1) How many years have you been teaching English?
a) 1-5
b) $6-10$
c) $11-15$
d) $16-20$
e) $20+$
2) Did you have phonetic lessons at university during your study?

YES - NO
3) Is International Phonetic Transcription (IPA) familiar to you?

YES - NO
4) Which pronunciation do you speak?
a) British English
b) American English
c) I am not sure.
d) Other (Which accent? - $\qquad$
5) How many students do you have in one class?
a) -10
b) $11-15$
c) $15-20$
d) $20+$

## Appendix 1: The questionnaire for teachers

## Bakalářská práce

Technická univerzita v Liberci
6) Do you use any kind of transcription during lessons?
a) I use the International Phonetic Alphabet.
b) I use my own system of transcribing.
c) I combine IPA and my own system.
d) I don't use transcription.
7) How often do pupils work with dictionaries at your class?
a) Almost every lesson.
b) Occasionally / Sometimes.
c) Almost never.
8) How often do you make listening exercises with your students?
a) Almost every lesson.
b) Minimal once a week
c) Less than once a week.
9) Transcribe these words as you would transcribe them at class. - vowels
a) hat - $\qquad$ f) here - $\qquad$
b) alone - $\qquad$ g) boy - $\qquad$
c) thumb - $\qquad$ h) poor - $\qquad$
d) girl -
i) house - $\qquad$
e) chair - $\qquad$ j) home - $\qquad$
10) Transcribe these words as you would transcribe them at class. - consonants
a) father -
e) shower - $\qquad$
b) Germany - $\qquad$ f) watch - $\qquad$
c) morning - $\qquad$ g) treasure - $\qquad$
d) month - $\qquad$ h) five- $\qquad$
11) Circle the sound of the plural endings in these words.
a) plays
/s/ X /z/ X /is/
b) buses
/s/ X /z/ X /rz/

Apendix 1: The questionnaire for teachers
c) snakes
/s/X /z/ X /iz/
d) planes
/s/ X /z/ X /rs/
12) Circle the sound of the plural endings in these words.
a) stopped
$/ \mathrm{t} / \mathrm{X} / \mathrm{d} / \mathrm{X} / \mathrm{Id} /$
c) closed
$/ \mathrm{t} / \mathrm{X} / \mathrm{d} / \mathrm{X} / \mathrm{Id} /$
b) joined
/t/ X /d/ X /rd/
d) invited
/I/ X /rd/ X /rt/
13) Is the pronunciation of these word pairs same? Write YES or NO
a) Shakespeare's plays take place in theatres. - $\qquad$
b) Don't lose your keys! Your pocket is loose. - $\qquad$
c) Winners of the race raise their trophies up. $\qquad$
d) I don't know if "write" is the right word. $\qquad$
e) I had to take my wet dog to a vet. $\qquad$
f) I don't know, if I say no more often than yes. - $\qquad$
g) Kate's not here. She's is in America. $\qquad$
h) Students protest very often. Last protest was last week - $\qquad$
14) Which problems do you find in teaching phonetics at lower secondary school? $\qquad$
15) Which difficulties do you see in using IPA at lower secondary school? $\qquad$

## Priozkum fonetických znalostí a použivání fonetické transkripce

(Žácí)

Milí žáci, tímto bych vás chtěla požádat o vyplnění tohoto anonymniho dotazniku. Dotaznik je zaměřen na učeni se anglické výslovnosti. Prosím vás o použití toho daného přepisu, na který jste ze školy zvyklí - tzn. přepis, který použivá váš učitel v hodině nebo který použiváte vy sami, když si zapisujete nová slovička s jejich výslovnosti. Děkuji.

1) Pracujete $v$ hodinách angličtiny $s$ knižními tištěnými slovniky? (Napřiklad Cambridge dictionary, kapesní slovniky Lingua...)

ANO - NE
2) Používáš ty osobně nějaký anglický překladač / slovnik v nějakém z tvých elektronických zařizeni? (telefon, tablet, notebook...)

ANO - NE
Pokud ano, zobrazuje se ti v tomto překladači i přepis výslovnosti?
ANO - NE - JEN U NĚKTERÝCH SLOV
3) Když se učite nová slovička, přepisuje váš učitel jejich výslovnost napřiklad na tabuli?
a) Ano, pokaždé. / Téměř pokaždé.
b) Někdy ano.
c) Jen výjimečně.
d) Ne, nikdy. / Téměř nikdy.
4) Dokážeš správně vyslovit slova podle přepisu, který je uvedený ve slovnicich?
(Napřiklad:/'msдa/)
ANO - NE
5) Zakroužkuj správnou výslovnost podtržené části slova. (Napřikad: $\operatorname{dog}-(/ \mathbf{v} / \mathrm{X} / \mathbf{\sigma} / \mathbf{X} / \mathbf{4} /$ )

| a) halt | $/ \mathbf{e} /$ | $\mathbf{X}$ | $/ \mathbf{x} /$ | $\mathbf{X}$ | $/ \mathbf{\Lambda} /$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| b) glone | $/ \mathbf{e} /$ | $\mathbf{X}$ | $/ \mathbf{O} /$ | $\mathbf{X}$ | $/ \mathbf{e} /$ |
| c) thumb | $/ \mathbf{z} /$ | $\mathbf{X}$ | $/ \mathbf{u}: /$ | $\mathbf{X}$ | $/ \mathbf{\Lambda} /$ |
| d) girl | $/ \mathbf{r} /$ | $\mathbf{X}$ | $/ \mathbf{3}: /$ | $\mathbf{X}$ | $/ \mathbf{Y} /$ |


| e) chair | /3:/ | X | /er/ X | /eə/ |
| :---: | :---: | :---: | :---: | :---: |
| f) here | /1Ә/ | X | /i:r/ X | /eӘ/ |
| g) boy | /0:j/ | X | $/ \mathbf{p} / \mathrm{X}$ | /01/ |
| h) poor | /3:/ | X | /u:r/ X | /æシ/ |
| i) house | $/ \mathbf{N} /$ | X | /Oz/ X | /as/ |
| j) home | /u:/ | X | $/ \boldsymbol{\sim} / \mathbf{z}$ | /0:/ |

6 ) Zakroužkuj správnou výslovnost podtržené části slova.

| a) father | $/ \mathbf{0} /$ | $\mathbf{X}$ | $/ \mathbf{\theta} /$ | $\mathbf{X}$ | $/ \mathbf{d} /$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| b) Germany | $/ \mathbf{0} /$ | $\mathbf{X}$ | $/ \mathbf{d} /$ | $\mathbf{X}$ | $/ \mathbf{f} /$ |
| c) morning | $/ \mathbf{n g} /$ | $\mathbf{X}$ | $/ \mathbf{y} /$ | $\mathbf{X}$ | $/ \mathbf{g} /$ |
| d) month | $/ \mathbf{t} /$ | $\mathbf{X}$ | $/ \mathbf{0} /$ | $\mathbf{X}$ | $/ \mathbf{\theta} /$ |
| e) shower | $/ \mathbf{J} /$ | $\mathbf{X}$ | $/ \mathbf{\theta} /$ | $\mathbf{X}$ | $/ \mathbf{3} /$ |
| f) watch | $/ \mathbf{d} /$ | $\mathbf{X}$ | $/ \mathbf{f} /$ | $\mathbf{X}$ | $/ \mathbf{0} /$ |
| g) treasure | $/ \mathbf{3} /$ | $\mathbf{X}$ | $/ \mathbf{J} /$ | $\mathbf{X}$ | $/ \mathbf{3} \mathbf{r} /$ |
| h) five | $/ \mathbf{v} /$ | $\mathbf{X}$ | $/ \mathbf{w} /$ | $\mathbf{X}$ | $/ \mathbf{f} /$ |

7) Zakroužkuj, na který zvuk konči tato slova.

| a) plays | $/ \mathbf{s} /$ | $\mathbf{X}$ | $/ \mathbf{z} /$ | $\mathbf{X}$ | $/ \mathbf{I S} /$ |
| :--- | :---: | :--- | :--- | :--- | :--- |
| b) buses | $/ \mathbf{s} /$ | $\mathbf{X}$ | $/ \mathbf{z} /$ | $\mathbf{X}$ | $/ \mathbf{I Z} /$ |
| c) snakes | $/ \mathbf{s} /$ | $\mathbf{X}$ | $/ \mathbf{z} /$ | $\mathbf{X}$ | $/ \mathbf{I Z} /$ |
| d) planes | $/ \mathbf{s} /$ | $\mathbf{X}$ | $/ \mathbf{z} /$ | $\mathbf{X}$ | $/ \mathbf{I S} /$ |

8) Zakroužkuj, na který zvuk konči tato slova.

| a) stopped | $/ \mathbf{t} /$ | $\mathbf{X}$ | $/ \mathbf{d} /$ | $\mathbf{X}$ | $/ \mathbf{d d} /$ |
| :--- | :---: | :--- | :--- | :--- | :--- |
| b) joined | $/ \mathbf{t} /$ | $\mathbf{X}$ | $/ \mathbf{d} /$ | $\mathbf{X}$ | $/ \mathbf{I d} /$ |


| c) closed | $/ \mathbf{t} /$ | $\mathbf{X}$ | $/ \mathbf{d} /$ | $\mathbf{X}$ | $/ \mathbf{\mathbf { d }} /$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| d) invited | $/ \mathbf{I} /$ | $\mathbf{X}$ | $/ \mathbf{I d} /$ | $\mathbf{X}$ | $/ \mathbf{I t} /$ |

9) Napiš na každý rádek ANO nebo NE podle toho, jestli si mysliš, že se slova potržená v tom daném řádku vyslovují stejně. (Pokud si mysliš, že se vyslovují rozdilně, múžeš zaznamenat, kde je v jejich výslovnosti rozdil.)
a) Shakespeare's plays take place in theatres. $\qquad$
b) Don't lose your keys! Your pocket is loose. $\qquad$
c) Winners of the race raise their trophies up. $\qquad$
d) I don't know if "write" is the right word. $\qquad$
e) I had to take my wet dog to a vet. $\qquad$
f) I don't know, if I say no more often than yes. $\qquad$
g) Kate's not here. She's is in America. $\qquad$
h) Students protest very often. Last protest was last week -
10) Libí se ti jak angličtina zni? (Napřiklad když posloucháš anglické písně, sleduješ filmy v angličtině atd.)

ANO - NE
11) Co je pro tebe nejtěžši na anglické výslovnosti? (Můžeš zakroužkovat vice možností a popsat další těžkosti při učeni se anglické výslovnosti).
a) Je těžké, že slova se piši jinak než se čtou.
b) Mám problém s vyslovenim delšich slov.
c) Moje výslovnost se nepodobá vủbec (/velmi málo) angličtině rodilého mluvčiho.
d) Nedokážu mluvit plynule.
e) Dělaji mi problémy slova se zvuky, které v češtině neexistuji.

$$
\text { (Naprikiklad: } \boldsymbol{\theta}, \mathfrak{x}, \boldsymbol{\theta}, \mathbf{3}, \mathbf{1}, \mathbf{d}, \boldsymbol{\partial} \ldots \text { ) }
$$

Něco jiného: $\qquad$

Appendix 3：The results from the teachers＇questionnaires

|  |  | Teacher A |  | Teacher C |  | Teacher D |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | correct p | IPA（レ）／ own tran． | correct p ． | IPA ( ) / own tran． | correct p ． | IPA（レ）／ own tran． |
| Amount of lessons／week |  | 3 |  | 3 |  | 18 |  |
| Students book |  | Project |  | Way to win 6－9 |  | CHIT CHAT |  |
| Q． 1 |  | a） |  | b） |  | b） |  |
| Q． 2 |  | YES |  | YES |  | YES |  |
| Q． 3 |  | YES |  | YES |  | YES |  |
| Q． 4 |  | a） |  | a） |  | a） |  |
| Q． 5 |  | b） |  | b） |  | c） |  |
| Q． 6 |  | d） |  | a） |  | c） |  |
| Q． 7 |  | a） |  | c） |  | a） |  |
| Q． 8 |  | a） |  | b） |  | a） |  |
| Q． 9 |  | 60，0\％ | 60，0\％IPA | 70，0\％ | 100，0\％IPA | 80，0\％ | 40，0\％IPA |
|  | a） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
|  | b） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
|  | c） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
|  | d） | X | ？ | $\checkmark$ | $\checkmark$ | X | ／Өr／ |
|  | e） | X | ／e：r／ | X | ／eƏr／ | X | ／e：／ |
|  | f） | $\mathbf{X}$ | ／i：r／ | X | ／IƏr／ | $\checkmark$ | ／ı：Ө／ |
|  | g） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | ／oj／ |
|  | h） | X | ／vr／ | X | ／ひӨr／ | $\checkmark$ | ／u：／ |
|  | i） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | ／＾ひ／ |
|  | j） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Q． 10 |  | 87，5\％ | 87，5\％IPA | 100，0\％ | 100，0\％IPA | 100，0\％ | 50，0\％IPA |
|  | a） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
|  | b） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | ／dž／ |
|  | c） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
|  | d） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
|  | e） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | ／š／ |
|  | f） | X | ／5／ | $\checkmark$ | $\checkmark$ | $\checkmark$ | ／č／ |
|  | g） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | ／ž／ |
|  | h） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Q． 11 |  | 75，0\％ |  | 75，0\％ |  | 100，0\％ |  |
|  | a） | $\checkmark$ |  | X |  | $\checkmark$ |  |
|  | b） | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
|  | c） | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
|  | d） | X |  | $\checkmark$ |  | $\checkmark$ |  |
| Q． 12 |  | 75，0\％ |  | 25，0\％ |  | 100，0\％ |  |
|  | a） | $\checkmark$ |  | X |  | $\checkmark$ |  |
|  | b） | $\checkmark$ |  | X |  | $\checkmark$ |  |
|  | c） | $\checkmark$ |  | X |  | $\checkmark$ |  |
|  | d） | X |  | $\checkmark$ |  | $\checkmark$ |  |
| Q． 13 |  | 87，5\％ |  | 87，5\％ |  | 100，0\％ |  |
|  | a） | $\checkmark$ |  | X |  | $\checkmark$ |  |
|  | b） | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
|  | c） | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
|  | d） | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
|  | e） | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
|  | f） | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
|  | g） | X |  | $\checkmark$ |  | $\checkmark$ |  |
|  | h） | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| Q． 14 |  | time－consuming，dyslexia |  | not enough time，not enough mtrin students books |  | $\begin{aligned} & \text { pron. is not tested = no } \\ & \text { time/use to teach it } \end{aligned}$ |  |
| Q． 15 |  | time－consuming，dyslexia |  | － |  | IPA alphabet |  |
| Total \％out of 500\％ |  | 385，0\％ |  | 357，5\％ |  | 480，0\％ |  |
| Ranking |  | 6. |  | 8. |  | 2. |  |

Appendix 3：The results from the teachers＇questionnaires

| Teacher E |  | Teacher F |  | Teacher G |  | Teacher H |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| correct p． | $\text { IPA ( } \downarrow \text { ) / }$ own tran． | correct p ． | IPA（レ）／ own tran． | correct p． | IPA ( ) / own tran． | correct p． | IPA（レ）／ own tran． |
| 4 （some classes 8） |  | － |  | 20 |  | 13 |  |
| Project |  | English Plus |  | Project |  | English Plus |  |
| d） |  | e） |  | c） |  | a） |  |
| NO |  | YES |  | YES |  | YES |  |
| YES |  | YES |  | YES |  | YES |  |
| a） |  | a）（weak accent） |  | a） |  | c） |  |
| c）／d） |  | b） |  | b） |  | b） |  |
| c） |  | c） |  | d） |  | c） |  |
| b） |  | b） |  | b） |  | b） |  |
| c） |  | b） |  | a） |  | b） |  |
| 1000，0\％ | 20，0\％IPA | 90，0\％ | 20，0\％IPA | 80，0\％ | 40，0\％IPA | 60，0\％ | 20，0\％IPA |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\checkmark$ | ／a／ | $\checkmark$ | ／a／ | $\checkmark$ | $\checkmark$ | $\checkmark$ | ／a／ |
| $\checkmark$ | ／Ө：／ | $\checkmark$ | ／Ө：／ | X | ／ع／ | X | ／Or／ |
| $\checkmark$ | ／e：Ө／ | $\checkmark$ | ／e：Ө／ | $\checkmark$ | ／e：Ө／ | X | ／er／ |
| $\checkmark$ | ／i：Ө／ | X | ／i／ | $\checkmark$ | ／i：Ө／ | X | ／ı：r／ |
| $\checkmark$ | ／o：j／ | $\checkmark$ | ／oi／ | $\checkmark$ | ／oi／ | $\checkmark$ | ／oi／ |
| $\checkmark$ | ／u：Ө／ | $\checkmark$ | ／uӨ／ | X | ／o：Ө／ | X | ／o：r／ |
| $\checkmark$ | ／au／ | $\checkmark$ | ／au／ | $\checkmark$ | ／＾ひ／ | $\checkmark$ | ／au／ |
| $\checkmark$ | ／Өu／ | $\checkmark$ | ／Өu／ | $\checkmark$ | $\checkmark$ | $\checkmark$ | ／Əu／ |
| 100，0\％ | 50，0\％IPA | 100，0\％ | 50，0\％IPA | 100，0\％ | 100，0\％IPA | 87，5\％ | 87，5\％IPA |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\checkmark$ | ／dž／ | $\checkmark$ | ／dž／ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\checkmark$ | ／š／ | $\checkmark$ | ／š／ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\checkmark$ | ／č／ | $\checkmark$ | ／č／ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\checkmark$ | ／ž／ | $\checkmark$ | ／ž／ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | ／f／ |
| 75，0\％ |  | 100，0\％ |  | 100，0\％ |  | 100，0\％ |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| X |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| 75，0\％ |  | 100，0\％ |  | 100，0\％ |  | 75，0\％ |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| X |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | X |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| 62，5\％ |  | 100，0\％ |  | 100，0\％ |  | 50，0\％ |  |
| X |  | $\checkmark$ |  | $\checkmark$ |  | X |  |
| X |  | $\checkmark$ |  | $\checkmark$ |  | X |  |
| X |  | $\checkmark$ |  | $\checkmark$ |  | X |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | X |  |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| Older students should learn p．more properly． |  | sounds $¢, \theta \times s, f, z$ |  | too little time for that |  | bad habits from prim．school，tests made for grammar／spelling，no time left |  |
| children do transcriptio difficult，li words is pref | tlike reading me signs are ning to new to reading tr． | if the sound exists in cz （e．g． $\int=$ š）－easier to use cz trans． |  | confusing for students |  | difficult to teach pron．at the same time；complicated system |  |
| 412，5\％ |  | 490，0\％ |  | 480，0\％ |  | 372，5\％ |  |
| 4. |  | 1. |  | 2. |  | $7 .$ |  |

Appendix 3: The results from the teachers' questionnaires

| Teacher I |  | Teacher J |  | Teacher K |  | $\varnothing$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| correct p. | IPA ( $\downarrow$ ) / own tran. | correct p . | IPA (レ) / own tran. | correct p. | IPA (レ) / own tran. |  |
| 3 |  | 22 |  | 3 |  |  |
| English Plus |  | English Plus |  | Project, Happy House, Happy Street |  |  |
| c) |  | e) |  | d) |  |  |
| YES |  | YES |  | YES |  |  |
| YES |  | YES |  | YES |  |  |
| d) |  | a) |  | a) |  |  |
| c) |  | a) b) c) |  | c) |  |  |
| c) |  | - |  | a) |  |  |
| b) |  | - |  | b) |  |  |
| a) |  | - |  | b) |  |  |
| 90,0\% | 50,0\% IPA | 100,0\% | 60,0\% IPA | 90,0\% | 50,0\% IPA | ¢ 82,0\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | /Ө/ | 30,0\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 60,0\% |
| $\checkmark$ | /i:Ө/ | $\checkmark$ | /i:Ө/ | $\checkmark$ | $\checkmark$ | 60,0\% |
| $\checkmark$ | /oi/ | $\checkmark$ | /oi/ | $\checkmark$ | /oi/ | 100,0\% |
| X | /o:r/ X /u:r/ | $\checkmark$ | $\checkmark$ | $\checkmark$ | /uӨ/ | 50,0\% |
| $\checkmark$ | /au/ | $\checkmark$ | /au/ | $\checkmark$ | /au/ | 100,0\% |
| $\checkmark$ | /Өu/ | $\checkmark$ | /Өu/ | $\checkmark$ | /Өu/ | 100,0\% |
| 100,0\% | 62,5\% IPA | 100,0\% | 50,0\% IPA | 87,5\% | 37,5 \% IPA | Ф 96,3\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
| $\checkmark$ | /dž/ | $\checkmark$ | /dž/ | $\checkmark$ | /dž/ | 100,0\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
| $\checkmark$ | /š/ | $\checkmark$ | /š/ | $\checkmark$ | /š/ | 100,0\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | /č/ | $\checkmark$ | /č/ | 90,0\% |
| $\checkmark$ | /ž/ | $\checkmark$ | /ž/ | $\checkmark$ | /ž/ | 100,0\% |
| $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | /f/ | 80,0\% |
| 100,0\% |  | 75,0\% |  | 100,0\% |  | $\varnothing$ 90,0\% |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | 90,0\% |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | 100,0\% |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | 100,0\% |
| $\checkmark$ |  | X |  | $\checkmark$ |  | 70,0\% |
| 100,0\% |  | 50,0\% |  | 100,0\% |  | ¢ 80,0\% |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | 90,0\% |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | 80,0\% |
| $\checkmark$ |  | X |  | $\checkmark$ |  | 70,0\% |
| $\checkmark$ |  | X |  | $\checkmark$ |  | 80,0\% |
| 100,0\% |  | 75,0\% |  | 62,5\% |  | ¢ 82,5\% |
| $\checkmark$ |  | X |  | $\checkmark$ |  | 60,0\% |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | 80,0\% |
| $\checkmark$ |  | $\checkmark$ |  | X |  | 70,0\% |
| $\checkmark$ |  | $\checkmark$ |  | X |  | 90,0\% |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | 100,0\% |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | 100,0\% |
| $\checkmark$ |  | X |  | X |  | 60,0\% |
| $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | 100,0\% |
| makes complicat students, repetion | gs more for weaker ening and e effective |  |  | pupils don't | nt to use IPA |  |
| I'm not ab always corr can | to use IPA ly, althoug I it. |  |  | practising in useful and | eaking more Idren like it e |  |
| 490,0\% |  | 400,0\% |  | 440,0\% |  |  |
| 1. |  | 5. |  | 3. |  |  |

Appendix 4: The results from the pupils' questionnaires

|  |  | Teacher C |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pupil 1 | Pupil 2 | Pupil 3 | Pupil 4 | Pupil 5 | Pupil 6 | Pupil 7 | Pulip 8 | Pupil 9 | Pupil 10 | Total |
| Q. 1 |  | NO | NO | NO | NO | NO | NO | NO | NO | NO | - |  |
| Q. 2 |  | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |  |
|  |  | SOME | YES | NO | NO | YES | SOME | SOME | NO | SOME | SOME |  |
| Q. 3 |  | a) | a) | a) | a) | a) | a) | a) | a) | a) | a) |  |
| Q. 4 |  | NO | YES | YES | NO | YES | NO | NO | YES | YES | NO |  |
| Q. 5 |  | 70,0\% | 80,0\% | 70,0\% | 50,0\% | 60,0\% | 80,0\% | 60,0\% | 80,0\% | 80,0\% | 60,0\% | Ø 69,0\% |
|  | a) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | b) | $\checkmark$ | X | X | X | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | 40,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | d) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | e) | $\checkmark$ | X | X | X | X | X | X | X | X | X | 10,0\% |
|  | f) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | X | X | X | X | X | 30,0\% |
|  | g) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 90,0\% |
|  | h) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 90,0\% |
|  | i) | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 80,0\% |
|  | j) | X | $\checkmark$ | X | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 50,0\% |
| Q. 6 |  | 75,0\% | 75,0\% | 75,0\% | 87,5\% | 75,0\% | 75,0\% | 75,0\% | 75,0\% | 75,0\% | 75,0\% | ¢ 76,3\% |
|  | a) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | d) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | e) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | f) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | g) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | h) | X | X | X | $\checkmark$ | X | X | X | X | X | X | 10,0\% |
| Q. 7 |  | 50,0\% | 50,0\% | 50,0\% | 75,0\% | 50,0\% | 75,0\% | 75,0\% | 50,0\% | 50,0\% | 50,0\% | ¢ 57,5\% |
|  | a) | X | X | X | X | X | $\checkmark$ | $\checkmark$ | X | X | X | 20,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | d) | X | X | X | $\checkmark$ | X | X | X | X | X | X | 10,0\% |
| Q. 8 |  | 100,0\% | 50,0\% | 50,0\% | 25,0\% | 75,0\% | 75,0\% | 75,0\% | 50,0\% | 0,0\% | 75,0\% | ¢ 57,5\% |
|  | a) | $\checkmark$ | X | X | X | X | X | X | X | X | X | 10,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 80,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | 80,0\% |
|  | d) | $\checkmark$ | X | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 60,0\% |
| Q. 9 |  | 87,5\% | 75,0\% | 50,0\% | 50,0\% | 75,0\% | 50,0\% | 37,5\% | 50,0\% | 62,5\% | 62,5\% | Ø 60,0\% |
|  | a) | X | X | X | X | $\checkmark$ | X | X | X | X | X | 10,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 80,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | d) | $\checkmark$ | X | X | X | X | X | X | X | X | $\checkmark$ | 20,0\% |
|  | e) | $\checkmark$ | $\checkmark$ | X | X | X | $\checkmark$ | X | X | X | X | 30,0\% |
|  | f) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | g) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | X | X | $\checkmark$ | $\checkmark$ | 60,0\% |
|  | h) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 80,0\% |
| Q. 10 |  | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |  |
| Q. 11 |  | a) c) | a) c) e) | a) c) | all | all + gram. | b) d) | d) | b) d) | c) e) | - |  |
| Total \% |  | 382,5\% | 330,0\% | 295,0\% | 237,5\% | 335,0\% | 305,0\% | 322,5\% | 305,0\% | 267,5\% | 322,5\% | Ф 310,2\% |
| Ranking |  |  |  |  |  |  |  |  |  |  |  | 1. |

Appendix 4: The results from the pupils' questionnaires

|  |  | Teacher E |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pupil 1 | Pupil 2 | Pupil 3 | Pupil 4 | Pupil 5 | Pupil 6 | Pupil 7 | Pulip 8 | Pupil 9 | Pupil 10 | Total |
| Q. 1 |  | No | YES | NO | YES | NO | YES | No | - | YES | No |  |
| Q. 2 |  | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |  |
|  |  | YES | SOME | NO | SOME | YES | SOME | NO | SOME | YES | NO |  |
| Q. 3 |  | b) | c) | b) | d) | b) | b) | c) | d) | b) | c) |  |
| Q. 4 |  | YES | YES | YES | - | NO | NO | NO | NO | - | NO |  |
| Q. 5 |  | 50,0\% | 30,0\% | 50,0\% | 40,0\% | 20,0\% | 50,0\% | 40,0\% | 20,0\% | 40,0\% | 30,0\% | ¢ 37,0\% |
|  | a) | X | X | X | X | X | $\checkmark$ | X | X | X | $\checkmark$ | 20,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 90,0\% |
|  | c) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | X | $\checkmark$ | X | 50,0\% |
|  | d) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | X | X | X | X | X | 30,0\% |
|  | e) | X | $\checkmark$ | X | X | X | $\checkmark$ | $\checkmark$ | X | X | X | 30,0\% |
|  | f) | x | X | X | X | X | $\checkmark$ | X | X | X | X | 10,0\% |
|  | g) | X/o:j/ | X/o:j/ | x/o:j/ | X | X | X | X | X | X | X | 0,0\% |
|  | h) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | i) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 90,0\% |
|  | j) | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | 50,0\% |
| Q. 6 |  | 62,5\% | 25,0\% | 62,5\% | 25,0\% | 25,0\% | 50,0\% | 37,5\% | 50,0\% | 37,5\% | 37,5\% | ¢ 41,3\% |
|  | a) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | X | $\checkmark$ | X | X | 50,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | c) | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | 50,0\% |
|  | d) | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | X | X | X | $\checkmark$ | 40,0\% |
|  | e) | $\checkmark$ | X | $\checkmark$ | X | X | X | X | X | X | X | 20,0\% |
|  | f) | X | X | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 50,0\% |
|  | g) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | h) | X | X | X | X | X | X | $\checkmark$ | $\checkmark$ | X | X | 20,0\% |
| Q. 7 |  | 75,0\% | 50,0\% | 50,0\% | 25,0\% | 50,0\% | 50,0\% | 50,0\% | 50,0\% | 50,0\% | 50,0\% | ¢ 50,0\% |
|  | a) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 90,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | d) | $\checkmark$ | X | X | X | X | X | X | X | X | X | 10,0\% |
| Q. 8 |  | 75,0\% | 50,0\% | 75,0\% | 75,0\% | 50,0\% | 0,0\% | 75,0\% | 50,0\% | 50,0\% | 75,0\% | ¢ 57,5\% |
|  | a) | X | X | $\checkmark$ | X | X | X | X | X | $\checkmark$ | X | 20,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 80,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 70,0\% |
|  | d) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | 60,0\% |
| Q. 9 |  | 37,5\% | 37,5\% | 25,0\% | 25,0\% | 25,0\% | 50,0\% | 37,5\% | 50,0\% | 25,0\% | 62,5\% | ¢ 37,5\% |
|  | a) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | 60,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | X | X | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 60,0\% |
|  | d) | x | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | X | $\checkmark$ | X | X | 40,0\% |
|  | e) | X | X | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 40,0\% |
|  | f) | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 80,0\% |
|  | g) | X | X | X | X | X | X | X | X | X | $\checkmark$ | 10,0\% |
|  | h) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
| Q. 10 |  | YES | YES | YES | YES | YES | YES | YES | YES | (SOME) | YES |  |
| Q. 11 |  | a) e) | a) e) | a) b) d) | a) | e) | a) e) | b) | d) | - | b) d) |  |
| Total \% |  | 300,0\% | 192,5\% | 262,5\% | 190,0\% | 170,0\% | 200,0\% | 240,0\% | 220,0\% | 202,5\% | 255,0\% | Ф 223,3\% |
| Ranking |  |  |  |  |  |  |  |  |  |  |  | 6. |

Appendix 4: The results from the pupils' questionnaires

|  |  | Teacher F |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pupil 1 | Pupil 2 | Pupil 3 | Pupil 4 | Pupil 5 | Pupil 6 | Pupil 7 | Pulip 8 | Pupil 9 | Pupil 10 | Total |
| Q. 1 |  | NO | NO | NO | YES | No | YES | NO | YES | NO | YES |  |
| Q. 2 |  | NO | YES | YES | YES | YES | YES | NO | YES | YES | YES |  |
|  |  | - | YES | YES | YES | SOME | NO | - | YES | YES | NO |  |
| Q. 3 |  | b) | a) | a) | b) | c) | c) | b) | b) | c) | b) |  |
| Q. 4 |  | YES | NO | YES | NO | YES | NO | YES | NO | NO | NO |  |
| Q. 5 |  | 60,0\% | 30,0\% | 20,0\% | 30,0\% | 70,0\% | 20,0\% | 90,0\% | 40,0\% | 20,0\% | 50,0\% | ¢ 43,0\% |
|  | a) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 70,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | X | 60,0\% |
|  | c) | $\checkmark$ | X | X | X | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | 40,0\% |
|  | d) | X | X | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 50,0\% |
|  | e) | $\checkmark$ | X | X | X | X | X | $\checkmark$ | $\checkmark$ | X | X | 30,0\% |
|  | f) | X/o:j/ | X/o:j/ | X | X | X | X | $\checkmark$ | X | X | X | 10,0\% |
|  | g) | X | X | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | X | 30,0\% |
|  | h) | X | X | X | X | X | X | $\checkmark$ | $\checkmark$ | X | X | 20,0\% |
|  | i) | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 60,0\% |
|  | j) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | 60,0\% |
| Q. 6 |  | 62,5\% | 62,5\% | 62,5\% | 37,5\% | 62,5\% | 20,0\% | 87,5\% | 50,0\% | 37,5\% | 20,0\% | Ф 50,3\% |
|  | a) | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | 60,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | X | 60,0\% |
|  | d) | X | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | X | X | 40,0\% |
|  | e) | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | X | 50,0\% |
|  | f) | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | 50,0\% |
|  | g) | X | X | X | X | X | X | $\checkmark$ | X | X | X | 10,0\% |
|  | h) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | X | X | X | X | $\checkmark$ | 40,0\% |
| Q. 7 |  | 50,0\% | 50,0\% | 25,0\% | 50,0\% | 50,0\% | 75,0\% | 50,0\% | 25,0\% | 50,0\% | 50,0\% | ¢ 47,5\% |
|  | a) | X | X | X | X | X | $\checkmark$ | X | X | X | X | 10,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 90,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 90,0\% |
|  | d) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
| Q. 8 |  | 25,0\% | 75,0\% | 75,0\% | 75,0\% | 75,0\% | 25,0\% | 75,0\% | 75,0\% | 75,0\% | 75,0\% | ¢ 65,0\% |
|  | a) | X | X | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | X | X | 30,0\% |
|  | b) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 80,0\% |
|  | c) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 70,0\% |
|  | d) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 80,0\% |
| Q. 9 |  | 62,5\% | 0,0\% | 75,0\% | 50,0\% | 50,0\% | 50,0\% | 62,5\% | 37,5\% | 12,5\% | 25,0\% | ¢ 42,5\% |
|  | a) | $\checkmark$ | X | X | X | X | X | X | $\checkmark$ | X | $\checkmark$ | 30,0\% |
|  | b) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | 60,0\% |
|  | c) | X | X | X | $\checkmark$ | X | X | X | $\checkmark$ | X | $\checkmark$ | 30,0\% |
|  | d) | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | X | X | X | 40,0\% |
|  | e) | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | X | X | 40,0\% |
|  | f) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | 70,0\% |
|  | g) | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | X | 50,0\% |
|  | h) | X | X | $\checkmark$ | X | X | X | $\checkmark$ | X | X | X | 20,0\% |
| Q. 10 |  | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |  |
| Q. 11 |  | d) | b) | b) | e) | a) c) d) | e) | d) | a) c) d) | trans. is difficult and useless for long words | e) |  |
| Total \% |  | 260,0\% | 217,5\% | 257,5\% | 242,5\% | 307,5\% | 190,0\% | 365,0\% | 227,5\% | 195,0\% | 220,0\% | Ф 248,3\% |
| Ranking |  |  |  |  |  |  |  |  |  |  |  | 4. |

Appendix 4: The results from the pupils' questionnaires


Appendix 4: The results from the pupils' questionnaires

|  |  | Teacher I |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pupil 1 | Pupil 2 | Pupil 3 | Pupil 4 | Pupil 5 | Pupil 6 | Pupil 7 | Pulip 8 | Pupil 9 | Pupil 10 | Total |
| Q. 1 |  | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |  |
| Q. 2 |  | YES | YES | YES | YES | YES | YES | YES | No | YES | YES |  |
|  |  | NO | NO | SOME | SOME | YES | YES | NO | - | SOME | SOME |  |
| Q. 3 |  | b) | b) | - | b) | b) | b) | b) | b) | c) | b) |  |
| Q. 4 |  | NO | SOME | NO | NO | NO | SOME | SOME | NO | NO | YES |  |
| Q. 5 |  | 20,0\% | 70,0\% | 20,0\% | 40,0\% | 40,0\% | 30,0\% | 40,0\% | 10,0\% | 50,0\% | 20,0\% | ¢ 33,0\% |
|  | a) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | 60,0\% |
|  | b) | X | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 60,0\% |
|  | c) | X | $\checkmark$ | X | $\checkmark$ | X | X | X | X | X | X | 20,0\% |
|  | d) | X | X | X | X | X | X | X | X | $\checkmark$ | X | 10,0\% |
|  | e) | X | $\checkmark$ | X | X | $\checkmark$ | X | X | $\checkmark$ | X | X | 30,0\% |
|  | f) | X | X | X | X | X | X | X | X | $\checkmark$ | X | 10,0\% |
|  | g) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | h) | X | $\checkmark$ | X | X | X | X | X | X | $\checkmark$ | X | 20,0\% |
|  | i) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | X | 70,0\% |
|  | j) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | 60,0\% |
| Q. 6 |  | 25,0\% | 62,5\% | 37,5\% | 50,0\% | 12,5\% | 62,5\% | 50,0\% | 75,0\% | 50,0\% | 75,0\% | Ф 50,0\% |
|  | a) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 70,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 90,0\% |
|  | c) | X | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | 50,0\% |
|  | d) | X | X | X | X | X | $\checkmark$ | X | $\checkmark$ | X | X | 20,0\% |
|  | e) | X | X | X | X | X | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 30,0\% |
|  | f) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 80,0\% |
|  | g) | X | X | X | X | X | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 30,0\% |
|  | h) | x | $\checkmark$ | X | X | X | X | $\checkmark$ | $\checkmark$ | X | X | 30,0\% |
| Q. 7 |  | 50,0\% | 50,0\% | 50,0\% | 75,0\% | 75,0\% | 50,0\% | 25,0\% | 50,0\% | 50,0\% | 50,0\% | ¢ 52,5\% |
|  | a) | X | X | X | X | X | $\checkmark$ | X | X | X | X | 10,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 80,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | d) | X | X | X | $\checkmark$ | $\checkmark$ | X | X | X | X | X | 20,0\% |
| Q. 8 |  | 50,0\% | 75,0\% | 100,0\% | 75,0\% | 75,0\% | 100,0\% | 100,0\% | 50,0\% | 50,0\% | 0,0\% | ¢ 67,5\% |
|  | a) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | 70,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | X | 60,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 80,0\% |
|  | d) | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | 60,0\% |
| Q. 9 |  | 37,5\% | 50,0\% | 37,5\% | 37,5\% | 12,5\% | 50,0\% | 37,5\% | 25,0\% | 50,0\% | 50,0\% | ¢ 38,5\% |
|  | a) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | X | X | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 50,0\% |
|  | c) | X | X | X | $\checkmark$ | X | X | $\checkmark$ | X | $\checkmark$ | X | 30,0\% |
|  | d) | X | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | 50,0\% |
|  | e) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | 70,0\% |
|  | f) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 70,0\% |
|  | g) | X | X | $\checkmark$ | X | X | X | $\checkmark$ | X | X | X | 20,0\% |
|  | h) | X | $\checkmark$ | X | X | X | X | X | X | X | X | 10,0\% |
| Q. 10 |  | YES | YES | YES | NO | YES | YES | YES | YES | - | YES |  |
| Q. 11 |  | - | pronun. of /r/ different in English | b) c) d)e) | b) c) | b) d) | - | b) | e) | c) d) e) | remem- <br> bering <br> the pron. |  |
| Total \% |  | 182,5\% | 307,5\% | 245,0\% | 265,0\% | 215,0\% | 292,5\% | 252,5\% | 210,0\% | 250,0\% | 195,0\% | Ф 241,5\% |
| Ranking |  |  |  |  |  |  |  |  |  |  |  | 5. |

Appendix 4: The results from the pupils' questionnaires

|  |  | Teacher J |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pupil 1 | Pupil 2 | Pupil 3 | Pupil 4 | Pupil 5 | Pupil 6 | Pupil 7 | Total |
| Q. 1 |  | No | NO | NO | No | No | NO | Yes |  |
| Q. 2 |  | YES | YES | YES | YES | YES | YES | YES |  |
|  |  | YES | NO | SOME | YES | SOME | YES | NO |  |
| Q. 3 |  | b) | b) | b) | b) | a) | c) | b) |  |
| Q. 4 |  | YES | NO | - | YES | No | NO | YES |  |
| Q. 5 |  | 60,0\% | 30,0\% | 40,0\% | 50,0\% | 30,0\% | 60,0\% | 40,0\% | ¢ 44,3\% |
|  | a) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | 57,0\% |
|  | b) | X | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 57,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 71,0\% |
|  | d) | $\checkmark$ | $\checkmark$ | X | X | X | X | X | 29,0\% |
|  | e) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | 57,0\% |
|  | f) | X | X | X | X | X | $\checkmark$ | X | 14,0\% |
|  | g) | X | X | X | X | X | X | X | 0,0\% |
|  | h) | X | X | X | X | X | $\checkmark$ | X | 14,0\% |
|  | i) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 71,0\% |
|  | j) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 71,0\% |
| Q. 6 |  | 75,0\% | 62,5\% | 75,0\% | 50,0\% | 87,5\% | 75,0\% | 37,5\% | ¢ 66,0\% |
|  | a) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 71,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | c) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 71,0\% |
|  | d) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | X | 57,0\% |
|  | e) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 86,0\% |
|  | f) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | g) | X | X | X | X | X | $\checkmark$ | X | 14,0\% |
|  | h) | X | $\checkmark$ | X | X | $\checkmark$ | X | X | 29,0\% |
| Q. 7 |  | 50,0\% | 25,0\% | 50,0\% | 50,0\% | 50,0\% | 75,0\% | 25,0\% | ¢ 46,4\% |
|  | a) | X | X | X | X | X | X | X | 0,0\% |
|  | b) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 71,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | d) | X | X | X | X | X | $\checkmark$ | X | 14,0\% |
| Q. 8 |  | 75,0\% | 25,0\% | 25,0\% | 75,0\% | 25,0\% | 75,0\% | 100,0\% | ¢ 57,1\% |
|  | a) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | 57,0\% |
|  | b) | $\checkmark$ | X | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 57,0\% |
|  | c) | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 71,0\% |
|  | d) | $\checkmark$ | X | X | X | X | $\checkmark$ | $\checkmark$ | 43,0\% |
| Q. 9 |  | 62,5\% | 37,5\% | 87,5\% | 75,0\% | 50,0\% | 25,0\% | 50,0\% | ¢ 55,4\% |
|  | a) | X | X | X | X | X | X | X | 0,0\% |
|  | b) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 71,0\% |
|  | c) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | X | X | 43,0\% |
|  | d) | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | X | 43,0\% |
|  | e) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 86,0\% |
|  | f) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | g) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | 57,0\% |
|  | h) | X | X | $\checkmark$ | $\checkmark$ | X | X | X | 29,0\% |
| Q. 10 |  | YES | YES | YES | YES | YES | YES | YES |  |
| Q. 11 |  | b) | b) c) | - | c) d) | a) d) e) |  | a) d) e) |  |
| Total \% |  | 322,5\% | 180,0\% | 277,5\% | 300,0\% | 242,5\% | 310,0\% | 252,5\% | Ф 269,3\% |
| Ranking |  |  |  |  |  |  |  |  | 3. |

Appendix 4: The results from the pupils' questionnaires

|  |  | Teacher K |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pupil 1 | Pupil 2 | Pupil 3 | Pupil 4 | Pupil 5 | Pupil 6 | Pupil 7 | Pulip 8 | Pupil 9 | Pupil 10 | Total |
| Q. 1 |  | NO | YES | NO | NO | YES | NO | YES | NO | NO | NO |  |
| Q. 2 |  | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |  |
|  |  | NO | YES | NO | YES | SOME | YES | YES | NO | YES | YES |  |
| Q. 3 |  | a) | a) | a) | a) | a) | a) | b) | a) | a) | a) |  |
| Q. 4 |  | NO | YES | NO | YES | NO | NO | YES | NO | NO | YES |  |
| Q. 5 |  | 50,0\% | 20,0\% | 40,0\% | 30,0\% | 20,0\% | 30,0\% | 20,0\% | 50,0\% | 30,0\% | 40,0\% | Ø 33,0\% |
|  | a) | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | X | 50,0\% |
|  | b) | X | X | X | X | X | X | X | $\checkmark$ | X | $\checkmark$ | 20,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 60,0\% |
|  | d) | X | X | $\checkmark$ | X | X | X | X | X | X | X | 10,0\% |
|  | e) | $\checkmark$ | X | X | X | X | X | X | $\checkmark$ | X | $\checkmark$ | 30,0\% |
|  | f) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | g) | X | X | X | X | X | X | X | X | $\checkmark$ | X | 10,0\% |
|  | h) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | i) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | j) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | X | X | $\checkmark$ | 50,0\% |
| Q. 6 |  | 12,5\% | 50,0\% | 37,5\% | 62,5\% | 12,5\% | 25,0\% | 62,5\% | 62,5\% | 62,5\% | 37,5\% | Ø 42,5\% |
|  | a) | X | $\checkmark$ | X | X | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | 40,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 90,0\% |
|  | c) | X | X | X | X | X | X | X | $\checkmark$ | $\checkmark$ | X | 20,0\% |
|  | d) | X | X | X | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 40,0\% |
|  | e) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 60,0\% |
|  | f) | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 60,0\% |
|  | g) | X | X | X | X | X | X | X | $\checkmark$ | X | X | 10,0\% |
|  | h) | X | X | X | $\checkmark$ | X | X | X | X | X | $\checkmark$ | 20,0\% |
| Q. 7 |  | 50,0\% | 50,0\% | 50,0\% | 50,0\% | 50,0\% | 50,0\% | 50,0\% | 25,0\% | 75,0\% | 75,0\% | $\varnothing$ 52,5\% |
|  | a) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 90,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 100,0\% |
|  | d) | X | X | X | X | X | X | X | X | $\checkmark$ | $\checkmark$ | 20,0\% |
| Q. 8 |  | 75,0\% | 0,0\% | 25,0\% | 25,0\% | 25,0\% | 25,0\% | 75,0\% | 50,0\% | 75,0\% | 25,0\% | ¢ 40,0\% |
|  | a) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | b) | $\checkmark$ | X | X | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 60,0\% |
|  | c) | $\checkmark$ | X | X | X | X | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | 40,0\% |
|  | d) | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | X | $\checkmark$ | X | 40,0\% |
| Q. 9 |  | 50,0\% | 37,5\% | 25,0\% | 25,0\% | 25,0\% | 50,0\% | 37,5\% | 25,0\% | 50,0\% | 50,0\% | Ø 37,5\% |
|  | a) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
|  | b) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | 90,0\% |
|  | c) | $\checkmark$ | $\checkmark$ | $\checkmark$ | X | X | X | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | 60,0\% |
|  | d) | X | X | X | $\checkmark$ | X | X | X | X | $\checkmark$ | X | 20,0\% |
|  | e) | X | X | X | X | X | $\checkmark$ | X | X | $\checkmark$ | X | 20,0\% |
|  | f) | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | $\checkmark$ | X | $\checkmark$ | $\checkmark$ | $\checkmark$ | 70,0\% |
|  | g) | $\checkmark$ | X | X | X | X | $\checkmark$ | $\checkmark$ | X | X | $\checkmark$ | 40,0\% |
|  | h) | X | X | X | X | X | X | X | X | X | X | 0,0\% |
| Q. 10 |  | YES | YES | YES | YES | YES | YES | NO | YES | YES | YES |  |
| Q. 11 |  | d) | e) | d) | a) | b) d) e) | d) | c) e) | a) | e) | a) c) d) |  |
| Total \% |  | 237,5\% | 157,5\% | 177,5\% | 192,5\% | 132,5\% | 180,0\% | 245,0\% | 212,5\% | 292,5\% | 227,5\% | Ф 205,5\% |
| Ranking |  |  |  |  |  |  |  |  |  |  |  | 7. |

Appendix 5: An example of a visual aid for teaching the symbols in a classroom


## "Im afraid I forgot my homework."


[^0]:    1 The Original IPA alphabet was designed by A. Bell and H. Sweet in 1888. In our schools we use a slightly adapted version using Czech letter symbols for some phonemes (e.g. a, o, ou, oi, š, ž, č, dž).

[^1]:    2 Translated from Czech by the author of this work.

[^2]:    3 Translated from Czech by the author of this work.
    $4 \quad$ Translated from Czech by the author of this work.

[^3]:    5 Translated from Czech by the author of this work.

[^4]:    6 Translated from Czech by the author of this work．

[^5]:    7 Translated from Czech by the author of this work.

[^6]:    8 Translated from Czech by the author of this work.

[^7]:    9 Further information are accessible online on: www.msmt.cz/file/38850/

[^8]:    10
    Translated from Czech by the author of this work.

[^9]:    11 Translated from Czech by the author of this work.

[^10]:    12 Translated from Czech by the author of this work.
    13 Translated from Czech by the author of this work.

