



Discrimination of English Phonemes Based on Minimal Pairs by Young Learners

Bakalářská práce

<i>Studijní program:</i>	B0114A300068 Anglický jazyk se zaměřením na vzdělávání
<i>Studijní obory:</i>	Anglický jazyk se zaměřením na vzdělávání Německý jazyk se zaměřením na vzdělávání
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Zadání bakalářské práce

Discrimination of English Phonemes Based on Minimal Pairs by Young Learners

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Zásady pro vypracování:

Pro nácvik správné výslovnosti je schopnost rozlišit jednotlivé fonémy nezbytným předpokladem. Jak výslovnost, tak rozlišování fonémů jsou dovednosti, které významně ovlivňují vzájemné porozumění. Cílem mé bakalářské práce je zjistit, do jaké míry jsou děti v mateřské škole schopné anglické fonémy rozlišovat. Dílčí cíle, kterým se práce bude věnovat: 1) identifikovat fonémy, jež působí českým mluvčím angličtiny problémy, 2) vytvořit soubor odpovídajících minimálních párů, 3) připravit patřičný způsob prezentace zvolených fonémů na základě minimálních párů a 4) použít v příslušné mateřské škole. Při zpracování bakalářské práce budou uplatněny zvláště tyto metody: studium odborné literatury, příprava jazykového materiálu, stanovení vhodného způsobu prezentace, kvantitativní analýza a vyhodnocení výsledků.

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Anotace

Tato bakalářská práce se zabývá tématem poslechu výslovnosti anglického jazyka pro českého rodilého mluvčího, především u dětí v předškolním věku. Konkrétněji se zaměřuje na poslechové rozlišování anglických fonémů v minimálních párech. Teoretická část této práce se zabývá jednotlivými prvky fonetiky a fonologie, podrobněji je popisuje a poté se věnuje výuce výslovnosti. Práce se zaměřuje především na minimální páry a práci s nimi. Tyto páry a jejich rozlišování jsou později testovány s dětmi v mateřské škole a celý proces je popsán v praktické části. Práce dokazuje, že je možné, aby děti v předškolním věku rozlišovaly anglické fonémy v párech “minimal pairs”.

Klíčová slova

Výuka anglického jazyka, fonetika, fonologie, minimální páry, fonémy, předškolní věk, výslovnost, poslech, identifikace fonémů, rozlišování

Abstract

This bachelor thesis deals with listening to English pronunciation for Czech native speakers, especially pre-school children. It specialises primarily in the auditory discrimination of English phonemes in minimal pairs. The theoretical part of this thesis deals with individual features of phonetics and phonology, describes them in detail, and then focuses on teaching pronunciation. The work focuses mainly on minimal pairs and working with them. These pairs and their discrimination are later tested with children in kindergarten, and the whole process is described in the practical part. The work proves that pre-school children can distinguish English phonemes in minimal pairs.

Keywords

English language teaching, phonetics, phonology, minimal pairs, phonemes, pre-school learners, pronunciation, listening, phoneme identification, discrimination

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1. Introduction

Pronunciation is a primary and significant feature of a language when learning a new one. It is essential to be understood and to understand others in the new language as communication is based on understanding. Accordingly, learning a new language is mainly driven by the desire to communicate with or get to know different nationalities and cultures. Therefore, a language's reception and production are indispensable for learners. However, learners are always influenced by the languages they already know when learning a new language, leading to pronunciation errors or mistakes. Studies such as *The Modern Language Journal* by Asher and García, on that account, examine the optimal age to learn a foreign language and agree that young children can learn a new language better due to brain plasticity theory and cellular receptivity (Asher and García, 1969, p. 334).

This thesis will introduce pronunciation and the problems that follow wrong pronunciation in English. Also, it will be pointed out that it is possible to perceive the sound side of the language from an early age.

This thesis aims to show that it is possible to master the problematic aspects of a particular language and its pronunciation and that it is possible to distinguish between very similar sounds or phonemes at an early age. It is, on the whole, focused on minimal pairs and the issues that appear with them. Mainly, I will focus on three specific groups of minimal pairs – /θ/ x /f/, /d/ x /t/, /æ/ x /e/. Then, I will try to teach children in kindergarten to distinguish them and learn to hear the difference.

Finally, I will analyse and present the results in this essay to show if children are, in fact, able to distinguish minimal pairs in kindergarten.

Theoretical part

2. Phonetics and Phonology

It is essential to introduce phonetics first since pronunciation is closely connected to it. Articulation is how words are said (Cambridge Advanced Learner's Dictionary & Thesaurus, 2021), and it is covered by Phonetics, which is the study of speech sounds. Phonetics has five branches connected one to another: *articulatory*, *acoustic*, *auditory*, *physiological*, and *perceptual*.

- Articulatory phonetics deals with producing speech sounds. That means it is "concerned with describing the speech sounds of the world's languages in terms of their articulations, that is, the movements and/or positions of the vocal organs (articulators)" (Keating, 2001 in International Encyclopedia of the Social & Behavioral Sciences).
- Acoustic phonetics concerns the transmission of speech sounds through the air.
- Auditory phonetics looks into how the listener perceives speech sounds.
- Under physiological phonetics belong the anatomical, neurological, and physiological bases of speech.
- Perceptual phonetics represents how speech is perceived by the brain (Kelly, 2000, p. 9).

Phonetics and Phonology

Phonetics and phonology are closely related sciences. In contrast to phonetics, phonology deals with how sound is systematised and interpreted (Kelly, 2000, p. 9). For the English language, it means it studies vowels, consonants, and suprasegmental features of a concrete language. **Vowels** and **consonants** are English **phonetic symbols** (phonemes), there are 44 of them overall, and they constitute the **IPA** – International Phonetic Alphabet. Vowels can also be divided into monophthongs and diphthongs, where monophthongs stand for single sound

phonemes (as in sit – /ɪ/) and diphthongs for movement from one vowel sound to another (as in wear – /eə/).

Under the **suprasegmental features** of the English language are **intonation** and **stress**, which are later split up into word stress and sentence stress.

2.1 Vowels

Vowels are voiced speech sounds produced without any stricture in the vocal tract. As stated above, there are two main groups: monophthongs and diphthongs. To begin with, the number of monophthongs in the IPA in English is twelve, and it is possible to split them into short vowels and long

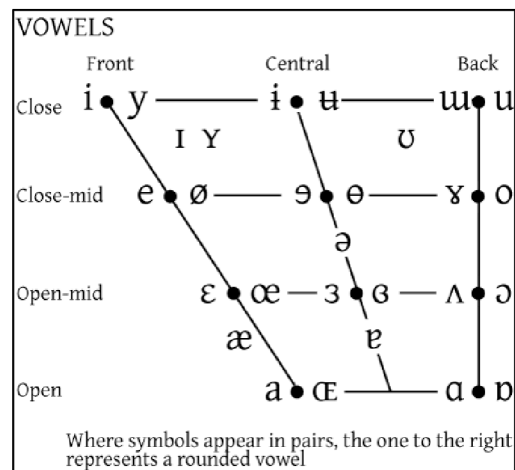


Figure 1; Vowels' Chart

vowels. Also, they are divided into closed, half-

closed, half-open, and open vowels. Then, the number of diphthongs is eight, and they are only divided into closing and centring diphthongs. Closing diphthongs are the ones with a movement from an open vowel to a closer one (/eɪ/). Centring diphthongs, however, end with a more centre vowel (schwa – /ə/ → /eə/. There are also triphthongs which are diphthongs and schwa put together /eɪə/.

- closing diphthongs: /eɪ/, /aɪ/, /ɔɪ/, /aʊ/, /əʊ/
- centering diphthongs: /ɪə/, /eə/, /ʊə/
- triphthongs: /eɪə/, /aɪə/, /ɔɪə/, /aʊə/, /əʊə/

The number of vowels in the Czech language and English differ. There are 13 vowel sounds in Czech, whereas English has 20 vowel sounds. Accordingly, some English vowel sounds are unknown to Czech speakers, and the particular reason for the circumstance is they have never used them or heard of them. That may create problems in understanding,

pronunciation, and also in listening. Issues Czech speakers learning English have, are covered in detail in chapter 6.

2.2 Consonants

Consonants are speech sounds produced with either complete or partial closure of the vocal tract. In the English language, there are 24 consonant sounds. The number of consonants in the alphabet is 21. Also, the difference between the written letter and a sound is lower than with vowels, so consonants may be easier for students to learn. All consonants can be described in three ways depending on:

2.2.1 **The Manner of Articulation**

- Plosives are produced with a complete closure in the vocal tract (/p/, /b/, /t/, /d/, /k/, /g/).
- Fricatives are produced when two articulators are close and the air escapes with friction (/f/, /v/, /ð/, /θ/, /s/, /z/, /ʃ/, /ʒ/, /h/).
- Affricates are produced with complete closure in the mouth and then slowly released with friction (/tʃ/, /dʒ/).
- Nasals are produced with complete closure somewhere in the mouth, and the air escapes through the nose (nasal cavity). Also, the soft palate is lowered (/m/, /ŋ/, /n/).
- Lateral consonants are produced when the air escapes around the sides of the tongue. Also, the tip of the tongue creates closure on the alveolar ridge (/l/).
- Approximants are produced when the articulators are close together, but the air escapes without friction or any airstream blockade. According to Kelly (2000, 53) the approximants /w/ and /j/ are sometimes considered "semi-vowel" because there is no restriction to the airflow (/r/, /j/, /w/).

2.2.2 **The Place of Articulation**

- Bilabials are those consonants made by two lips that block the airstream from the lungs (e.g., /p/, /b/).

- Labiodental are consonants produced with the lower lip and the upper teeth. That creates a partial blockade and causes friction (e.g., /f/, /v/).
- Dental consonants are made when the tongue touches the teeth (e.g., /ð/, /θ/).
- Alveolar consonants are produced when the tongue touches the alveolar ridge (right behind the teeth) (e.g., /s/, /z/).
- Palatal/palatoalveolar consonants are produced when the body of the tongue touches the hard palate (in the middle of the mouth) (e.g., /ʃ/, /ʒ/)
- velar are those consonants that are made when the back of the tongue touches the soft palate (the velum) (e.g., /k/)
- glottal consonants have very little but audible friction in the glottis because there is a gap between the vocal cords (e.g. /h/)

2.2.3 The Force of Articulation

According to Kelly (2000, p. 47), it is also essential to be aware of the force of articulation to know if the consonant is voiced or voiceless. It simply depends on the vibration of the vocal cords.

- Voiced consonants are produced with the vibration of vocal cords.
- Voiceless consonants are produced without this vibration.

Classification of NAE Consonant Phonemes							
Manner of Articulation	Place of Articulation						
	Bilabial	Labiodental	Dental	Alveolar	Palatal	Velar	Glottal
Stop							
Voiceless	p			t		k	
Voiced	b			d		g	
Fricative		f	θ	s	ʃ		h
Voiceless		v	ð	z	ʒ		
Voiced							
Affricate					tʃ		
Voiceless					dʒ		
Voiced							
Nasal							
Voiced	m			n		ŋ	
Liquid							
Voiced				l	r		
Glide							
Voiced	w				y		

Figure 2; Consonant Phonemes' Chart

2.3 Differences between vowels and consonants:

Generally described, consonants are sounds that need some blockade or closure, whereas vowel sounds are produced without these strictures. Also, if the Czech and English languages are compared, the consonant sounds are more or less the same. Problems with the English consonants to Czech speakers may be in the aspiration of some consonants (/p/, /t/, /k/) or in articulating brand new sounds that they never pronounced before (/ð/, /θ/).

However, there are more vowel sounds in English than in Czech. Therefore, it is expected to find more vowel sound mistakes than consonant ones. The English language has seven more vowel sounds than the Czech language that the Czech native speakers have to learn as new vowel sounds. The pronunciation errors with vowels and consonants will be discussed, in more detail, in chapter 6.

2.4 Suprasegmental Features

The suprasegmental features are specific features of phonetics and phonology that refer to the language as a whole unit. These features include, for instance, tone and intonation, word and sentence stress, and rhythm. Besides, they are significant in understanding the language. Sometimes the suprasegmental features are referred to as prosody (= features of connected speech).

For example, "Sorry" can be used as a question or a simple declarative sentence. If used with the rising tone "Sorry?" it is a question meaning: could you repeat it? However, if used in a falling tone, it is a declarative sentence saying you are sorry, that you cannot help or do what is needed (Wang, 2019).

In addition, it is essential to use the word and sentence stress correctly; otherwise, it changes the meaning or may not be understood.

2.4.1 Word stress

There is mainly one stressed syllable, but some longer words may also have secondary stress. If the stress is misused, it can be hard to understand, and even some native speakers may have problems understanding. Explained on another example:

The word "conflict" can be stressed on the first syllable, CONflict, and then it functions as a noun. However, the stress on the second syllable conFLICT acts as a verb. Therefore, it plays a significant role if non-native speakers want to be understood.

2.4.2 Sentence stress

Sentence stress is a little easier because what is stressed is also emphasised in the sentence. The stressed parts of a sentence carry the meaning. Also, sentence stress may be shifted to emphasise another piece of information. Usually, the content words are stressed, such as main verbs, nouns, and adjectives.

Articles or auxiliary verbs are not usually the ones stressed.

For instance:

- "I have seen the new movie." – me, not anyone else
- "I HAVE SEEN the new movie." – stating I really saw it, reassuring
- "I have seen THE NEW MOVIE." – I saw the new movie, not any other movie

3. Pronunciation

Pronunciation is the audible representation of a language (Vančová, 2020, p. 8). It is a pivotal starting point for communication in foreign languages, in fact, for all spoken languages. Pennington and Rogerson-Revell (2019, p. 1) claim: "Pronunciation is required not merely for talking, but for communicating and making sense to another person, that is, for making meaning in both an audible and an understandable form." Without proper pronunciation, there would be no understanding in communication, and it is easy to prove this. If only one phoneme is poorly

pronounced, it can change the meaning: sip x ship, sheep x ship, man x men, fought x thought, and the sentence or message will not be understood.

That being the case, an International Phonetic Alphabet (so-called IPA) was created to provide a unique symbol for each distinctive sound in a language — that is, every sound, or phoneme, that serves to distinguish one word from another (Britannica online, 2022). Also, it tried to make a unified system of transcription in languages to prevent mayhem in different spellings in every language.

The IPA (Alphabet) was formed in the late 19th century after Passy, Ellis, Sweet, and Jones established the International Phonetic Association. This Association is responsible for the IPA chart that summarises the alphabet, as shown in picture 3. The Alphabet charts are annually regulated and re-issued so that they are present.

Furthermore, the International Phonetic Association is the oldest and, at the same time, the principal representative organisation for phoneticians and was established in Paris at the end of the 19th century in 1886. This organisation aims to support scientific research in the field of phonetics and to promote various practical applications of this science (Tabain, International Phonetic Association, accessed on 16/2/2022).

THE INTERNATIONAL PHONETIC ALPHABET (revised to 2015)

CONSONANTS (PULMONIC)

© 2015 IPA

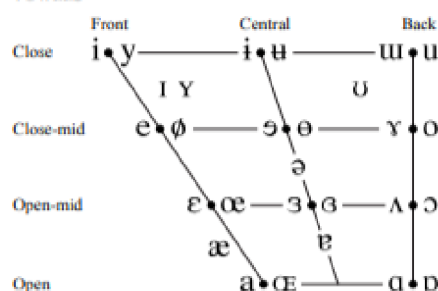
	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill				r					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Symbols to the right in a cell are voiced, to the left are voiceless. Shaded areas denote articulations judged impossible.

CONSONANTS (NON-PULMONIC)

Clicks	Voiced implosives	Ejectives
◌ ʘ Bilabial	ɓ Bilabial	ʼ Examples:
◌ ǀ Dental	ɗ Dental/alveolar	ɸ' Bilabial
◌ ǃ (Post)alveolar	ɟ Palatal	t' Dental/alveolar
◌ ǂ Palatoalveolar	ɠ Velar	k' Velar
◌ ǁ Alveolar lateral	ɣ Uvular	s' Alveolar fricative

VOWELS



Where symbols appear in pairs, the one to the right represents a rounded vowel.

OTHER SYMBOLS

- ʌ Voiceless labial-velar fricative ɕ ʑ Alveolo-palatal fricatives
- ʋ Voiced labial-velar approximant ɺ Voiced alveolar lateral flap
- ɥ Voiced labial-palatal approximant ɧ Simultaneous ʃ and x
- ħ Voiceless epiglottal fricative
- ʕ Voiced epiglottal fricative Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary.
- ʡ Epiglottal plosive

ts̺ kp̺

SUPRASEGMENTALS

- ˈ Primary stress ˌfəʊnəˈtʃən
- ˈˌ Secondary stress
- ː Long eː
- ˑ Half-long eˑ
- ˘ Extra-short ɛ̘
- ◌ Minor (foot) group
- ◌ Major (intonation) group
- ◌ Syllable break ji.ækt
- ◌ Linking (absence of a break)

DIACRITICS Some diacritics may be placed above a symbol with a descender, e.g. ɲ̰

◌ Voiceless	ɸ ɸ̥	◌ Breathy voiced	ɓ̤ ɓ̤̤	◌ Dental	t̪ d̪
◌ Voiced	ɸ̣ ɸ̣̣	◌ Creaky voiced	ɓ̰ ɓ̰̰	◌ Apical	t̺ d̺
◌ Aspirated	tʰ dʰ	◌ Linguolabial	t̟ d̟	◌ Laminal	t̻ d̻
◌ More rounded	ɔ̙	◌ Labialized	tʷ dʷ	◌ Nasalized	ẽ
◌ Less rounded	ɔ̜	◌ Palatalized	tʲ dʲ	◌ Nasal release	d̪ⁿ
◌ Advanced	ɥ	◌ Velarized	tˠ dˠ	◌ Lateral release	d̪ˡ
◌ Retracted	ɛ̠	◌ Pharyngealized	tˤ dˤ	◌ No audible release	d̪̚
◌ Centralized	ẽ	◌ Velarized or pharyngealized	ɖ̤		
◌ Mid-centralized	ẽ̞	◌ Raised	ɛ̥ (ɹ̥ = voiced alveolar fricative)		
◌ Syllabic	ɲ̩	◌ Lowered	ɛ̜ (β̜ = voiced bilabial approximant)		
◌ Non-syllabic	ɛ̥	◌ Advanced Tongue Root	ɛ̟		
◌ Rhoticity	ɐ̰ ɐ̰̰	◌ Retracted Tongue Root	ɛ̠		

TONES AND WORD ACCENTS

- | LEVEL | CONTOUR |
|--------------------|-------------------|
| ẽ̥ or ɿ Extra high | ẽ̥ or ɿ Rising |
| é High | é Falling |
| ē Mid | ē High rising |
| è Low | è Low rising |
| ẽ̞ Extra low | ẽ̞ Rising-falling |
| ↓ Downstep | ↗ Global rise |
| ↑ Upstep | ↘ Global fall |

Typefaces: Doulos SIL (metatext), Doulos SIL, IPA Kiel, IPA LS Uni (symbols)

Figure 3; IPA

4. Pronunciation teaching

Articulation is the primary key to communication and understanding, as stated in the previous chapter (no. 3). Teaching pronunciation is impacted by speakers' mother tongue and international means such as media or social sites, as claimed by Vančová (2020, p. 16–26). It has also been influenced by several trends in pedagogical approaches from a historical point of view. Due to these inclinations, there were shifts in teaching techniques, methods and priorities. As maintained by Celce-Murcía (1996, p. 2), there are two main approaches to teaching pronunciation today: an **intuitive-imitative** approach and an **analytic-linguistic** approach.

Firstly, **the intuitive-imitative approach** focuses on the learners' ability to listen and intuitively imitate. Students attend and imitate the language's sounds, tones, and rhythms without explicit information or knowledge of the phonetic alphabet or articulatory descriptions. This approach assumes using technologies such as computers, radios, audio recordings, or even videos with audio. There is also an importance of suitable models to listen to, predominantly native speakers.

Secondly, **the analytic-linguistic approach** is based on information, definitions, descriptions and tools, including the IPA, articulatory illustrations, or charts of the vocal apparatus. The learner is explicitly informed and can focus on the rhythms of the target language. This approach was formed to complement the intuitive-imitative one, meaning they work best together, and the second one is not replacing the first one.

Under other approaches belong the **naturalistic methods**, which are dedicated only to listening and receptive functions at the beginning. After observations, it was developed how children learn their first language/mother tongue. Even though these learners have never received explicit pronunciation instructions, after they are allowed to speak and communicate, their pronunciation is quite good because there is a better opportunity to internalise the target language's sound system (Celce-Murcia, 1996, p. 3). These methods demonstrate that the

receptive functions are essential. It would probably be impossible to learn good pronunciation without hearing the language.

Furthermore, a Communicative Approach took over in the 1970s, and it is a dominant approach in teaching pronunciation these days. In the communicative approach, "the primary purpose of language is communication" (Celce-Murcia, 1966, p. 7, 10). The aim is to help learners so that their pronunciation does not decrease or make it impossible to communicate; the objective is not to make learners sound or speak like native speakers. With this intention, that would be an unrealistic goal. Also, pronunciation is one of the necessary features of oral communication.

Also, in the 1960s, Gattegno introduced a new language-teaching approach called **The Silent Way** (Gattegno, 1963). He claims, "it presents a radically different approach to language teaching." As the title suggests, this method is based on silence, which means the teacher is talking less and less, whereas learners are speaking more and more. Gattegno gained evidence to show this method is valid from the experimental teaching. Autonomy and active participation of learners are used as a basis to gain fluency and good pronunciation in the target language. There are colourful charts that show spelling or pronunciation to learners. In the pronunciation charts, each sound has a colour, for instance, /i:/ (→ ee, e, ea) is red.



Figure 4, The Silent Way British Chart

In today's lessons, the Silent Way is not widely used in its original form. However, it has influenced pronunciation teaching, and some ideas are used today.

Finally, the teaching method called "**Silent Period**" by Stephen Krashen, an American linguist, is a crucial pre-production period, when a learner is not actively producing or using the second language but perceives it. Also, it is the first stage of the language acquisition process. Children should not be forced to speak and use a second language actively before they are ready during this period because they need time to listen, observe and focus on the language system. It is based on how babies learn their mother tongue or second language. Furthermore, this period's length depends on the child's development, emotions, personality, and other factors. (Cunningham and Shagoury, accessed online on 10/04/2022)

The English language has a lot of variants and accents. Several accents are considered a standard form of speech for a particular group of people (e.g., American, British). In the Czech Republic, the elemental accent taught is the British one, which is taught in most elementary and high schools. The specific reason for the circumstance is that most books for children (Happy House, Discovery English, CAE Gold Plus, Gold First, etc.) teach the British accent pronunciation and work with the British vocabulary. However, in English classes in the Czech Republic, there is also often demonstrated a difference between the British and American accents in the textbooks or by the teacher himself, so the lesson does not have to be just in the British accent.

Additionally, teaching pronunciation is not a favourite activity for teachers, as claimed by Vančová (2020, p. 19). Teachers struggle with selecting suitable methods or pronunciation teaching techniques, and they feel underprepared. Over and above that, a teacher is a person that can motivate, lead and help learners to achieve their goals. Moreover, teachers influence the relationship students have towards the English subject pronunciation and affect the type and amount of information students get. Pennington and Rogerson-Revell (2019, p. 201) also stated: "Pronunciation is closely associated with emotion and identity and requires considerable sensitivity in terms of teaching activities and techniques." Therefore, addressing the emotional

and attitudinal features of pronunciation learning is important to set achievable goals and pick suitable methods, techniques and activities.

Pennington and Rogerson-Revell (2010, p. 201) listed spontaneous error correction, phonetics training, listen and repeat, reading aloud, and shadowing as the most common techniques used in pronunciation teaching. They also emphasise that pronunciation is not only about the small units (the individual sounds). Nevertheless, it functions as a more extensive system, where sentence stress or liaison is as significant as the individual sounds.

Furthermore, Pennington and Rogerson-Revell (2019, p. 202) claim teachers can help students comprehend pronunciation learning as a systematic process by teaching them other subskills needed to master several elements of pronunciation. They believe the involvement of these subskills is essential to get pronunciation from individual sounds to discourse-level intonation patterns, including:

- noticing – distinctions and resemblance between the L1 and L2 (English: progressive assimilation x Czech: regressive assimilation), pronunciation elements in speech
- discriminating – correct and incorrect elements (/ʃɪp/ x /ʃi:p/ – different word/meaning)
- imitating – sounds and other aspects of pronunciation accurately
- reproducing – elements without prompting (according to a model/teacher)
- contextualising – individual components within a stream of speech
- generating – pronunciations in new contexts
- correcting – their own inaccurate sounds or patterns (self-evaluation)

4.1 Language learning processes

From Nolenhoeksema's (2021, p. 376) point of view, every young child is able to learn their mother tongue, a complicated linguistic system, effortlessly. There are three levels of a language in general: phonemes, morphemes (affixes, words), and sentence units (phrases +

sentences). In the first year of life, children learn which phonemes belong to their mother tongue and which are essential to distinguish; other phonemes are forgotten. Before anything else, any language learning includes innate factors such as how rich our inborn dispositions are or which critical period influences human development.

Also, it is crucial to learn to know a language. Therefore, psychology distinguishes the learning processes. Nolen-Hoeksema et al. (2012) differentiate imitation, conditioning, and hypothesis testing for language learning, where all three are used to some extent.

4.1.1 Imitation

In this process, children learn by imitating adults. Imitation can be used with new words – Parent points at a grandma and says "grandma". However, it is not the primary process of children learning to make or understand a sentence. In addition, mistakes made by children come to a conclusion they try to apply the rules, not only imitate.

4.1.2 Conditioning

Conditioning demonstrates that children learn through reward and punishment. Parents or adults compliment children on saying something right or upbraid them for mistakes. However, it is too complicated to be fully used, and successful and particular reason for the circumstance is parents or adults would need to react to everything children have said.

4.1.3 Hypothesis testing

When children create a hypothesis about a concrete linguistic rule used and apply it, it is called hypothesis testing. Children test the principle, and if it is working and correct, they use it. Related to English, if a child finds out that –ed means past tense, it will use it even when the verb is irregular and has different conjugation rules.

(Nolen-Hoeksema et al., 2012, p. 376, 383–389)

4.2 Language Learning Strategies

Learning is a process of understanding something by studying or by experience. It is a complex lifetime process that causes permanent behavioural change (Nolen-Hoeksema et al., 2012, p.283). As a consequence, some learning strategies were developed. Vančová (2020, p. 22: cited from Zare, 2012, p. 163) defines learning strategies as "special ways of processing information that improve comprehension, learning or retention of the information."

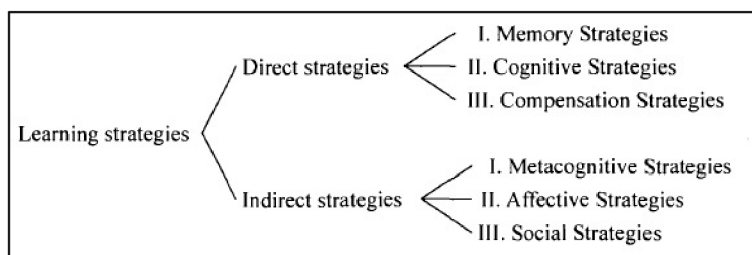


Figure 5; Language Learning Strategies

Strategies defined by Oxford are in picture number 5. There is demonstrated that learning strategies are either direct or indirect. **Direct strategies** use different mental processes of learners – memory, reason, logic. They allow learners to use tactics like guessing. Three direct techniques are demonstrated in picture 5:

- memory strategies (creation of mental linkages – e.g. use of the IPA alphabet, learning poems, songs)
- cognitive strategies (practising the language – e.g. imitation of a teacher, repetition of the model, using flashcards or presentations or YouTube videos, making mind maps, visualisation)
- compensation strategies (overcoming limitations in speaking and writing – e.g. practising complex vocabulary – repeatedly saying or writing).

In **indirect strategies**, on the other hand, learners need to use different skills too. These strategies should better the communicative language abilities. Three indirect techniques illustrated in picture 5 are:

- metacognitive (planning and evaluating your learning – e.g. reading about pronunciation rules or phonetics, looking for feedback by another person, attempting self-correction, checking pronunciation in a dictionary)
- affective (encouraging yourself – e.g. be okay with mistakes and mispronunciation, feeling good about correct pronunciation)
- social (cooperation with others, communication – e.g. speaking with a friend in English, studying with or teaching someone) (Vančová, 2020, p. 22–23).

4.2.1 Metacognition

The metacognitive strategies are vital if teachers want to teach students to be self-directed learners. The Learning Center, University of North Carolina at Chapel Hill (available on 13/03/2022 online) defines it as thinking about thinking and learning. In addition, it means being aware of what we know and do not know. Among the metacognitive strategies belong planning and organisation (setting goals), monitoring the work (checking the progress), planning of learning (time management, creating an optimal studying environment, e.g. tidy table), reviewing and evaluating (self-reflection: exams, tests, the work done, strengths and weaknesses) and also asking ourselves questions – these questions should show us for example whether our learning strategies were successful or not.

Some pronunciation learning strategies increase metacognitive awareness, namely critical listening. Critical listening is mentioned because this strategy is used in the practical part of this bachelor thesis. As stated by Pennington and Rogerson-Revell (2010, p. 203), it "is a metacognitive strategy involving intensive listening specifically focused on the contrast between an acceptable or correct pronunciation and one that is unacceptable or incorrect..." Then, it may be helpful to improve a learner's pronunciation, such as producing final voiced consonants or noticing the details in pronunciation. For that, a **shadowing** technique may be used (the listener immediately tries to repeat what was said).

4.3 How to teach young children?

It is essential for pre-school teachers to keep the child's development in mind. How young children learn and how different it is in every stage of life (children, teenagers, adults, elderly) is one of the major topics of psychology, specifically developmental psychology, that studies people's changes throughout a lifetime.

Children have different mental processes than adults; hence it is impossible to teach them a new language the same way as adults. They learn by observing, imitating, exploring, and listening. Later they learn also by asking questions (the well-known question: why?). According to Mertin and Gillnerová (2010), the best age to start teaching a foreign language is when the child is five years old. They explain that it is because for children at this age, the use of their mother tongue is essential, and it is the crucial mean of communication, understanding, meeting needs, and expressing their wishes. Also, as Mertin and Gillnerová (2010, p. 157) claimed, children in this age group have a sufficient vocabulary and can pronounce almost correctly. Hence, it is an ideal time to start with a foreign language. The age around five is also good due to the typical spontaneity of children's speech, mostly the absence of inhibitions and control. Furthermore, sensitivity to common and specific linguistic stimuli is also significant for developing language skills, and this stage of development is said to be once-in-a-lifetime.

Directly to teaching, firstly mentioned by Mertin and Gillnerová (2010, p. 158), is the number of children taught at the same time. They state the ideal number is around five or six kids per group but that it is also okay to have ten children in a group. The specific reason for the circumstance is that children can focus more in a smaller group and are in constant contact with the teacher. Talking about focus, a pre-school child can concentrate only for a limited time, around 10–20 minutes. Also, it is vital to repeat everything learned to increase vocabulary.

The best way to teach young learners is through playing games or movement. Mertin and Gillnerová (2010, p. 203) believe the best way to introduce children to a foreign language is

through a **didactic game**. These games replace the complex explanation used to teach older children foreign languages. Integrating movement with didactic games is beneficial since children learn with their whole being and experience.

When introducing a foreign language to children, the teacher should use simplified phrases, sentences and vocabulary rather than complicated or complex sentences. Also, it is useful when a teacher demonstrates the response they are asking from the children (e.g. "Stand up", and the teacher demonstrates standing up). That is called the TPR method = total physical response. Other helpful tips for teachers may be, in particular: talking slowly, making sure that children understand, not using any abstract words, and working with pictures and gestures. (Mertin and Gillnerová, 2010, p. 160). Last but not least, plenty of activities can be used in the kindergarten.

- Teaching young learners basic requirements and concepts through gestures, signals, or movement (e.g. Be quiet, stand up, sit down, point at ..., find something)
- Physical activities (e.g. run, walk, jump, run towards)
- Songs, rhymes, or short poems (also better with movement: e.g. Head, Shoulders, Knees and Toes)
- Short stories with pictures
- Vocabulary related to the current topic in English (e.g. farm animals: cow, pig, horse)
- Introducing children to the English culture, facts about England or English speaking countries (e.g. Where is the English language spoken. What traditional food do they eat. What toys are favourite in England.)

There are many more activities. However, it is significant to remember that "less is more". With that in mind, repeat and go back to everything mentioned in the report of Mertin and Gillnerová (2010, p. 161–162).

5. Receptive language skills

"Receptive language is the ability to understand words and language," according to Kid Sense Child Development (accessed on 8/3/2022), which provides occupational therapy and speech therapy to children in Australia. To teach children to read or speak, they need to understand the words they are saying or reading; that is the receptive language. Without receptive language, children struggle with following directions, taking notes in class, or reading comprehension (Charlotte, Speech and Hearing Center).

Furthermore, these language skills are more accessible to learn than expressive skills (speaking, pronunciation, and writing). As the Charlotte Speech and Hearing Centre stated, they are also the first language skill to be developed. Receptive language involves gaining information from:

- Routine (e.g. washing hands before eating)
- Visual information within the environment (e.g. a red light means stop)
- Sounds and words (e.g. an alarm means something terrible happened)
- Concepts such as size, shape, colours and time, grammar (e.g. regular and irregular verbs)
- Written information (e.g. signs in the environment such as "no smoking, no walking")

(Kid Sense Child Development, accessed on 8/3/2022)

Accordingly, listening is an essential part of language learning and pronunciation learning. Children learn their mother tongue firstly through listening. When a child is in a mother's womb, it can hear her voice – her talking, singing, whispering, and also other people. As a consequence, after the child is born, it can recognise its mother's voice and distinguish her

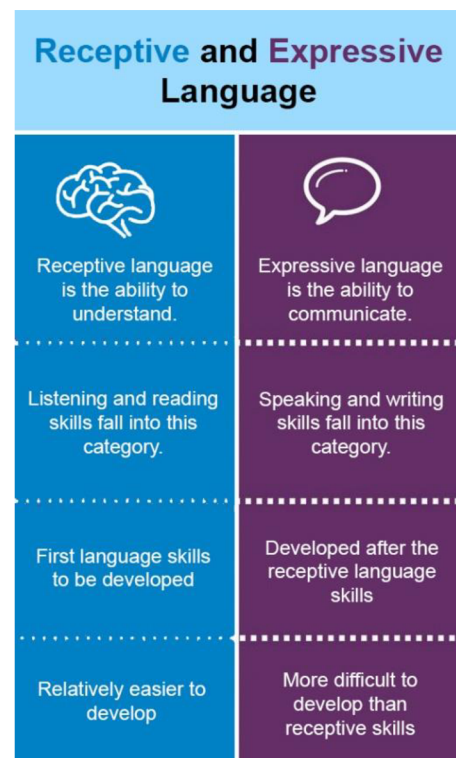


Figure 6, Receptive and Expressive Language

voice from others. Furthermore, an infant or a toddler perceives the world and tries to learn everything available and possible. It learns not only through senses like hearing or touch, but these play an essential role in the learning process, demonstrated in an example that newborn children like to chew, lick, or suck stuff, meaning they observe through the sense of taste and touch at the beginning.

Talking specifically about **pronunciation**, if a child or a learner has a good model whose **accent** is close to the **pronunciation** of a native speaker, it will be easier for them to learn how to pronounce. The learners are influenced by the pronunciation they hear, and their teacher affects them too. An English language teacher needs to keep in mind that he is the influence of the language.

6. Czech native speakers and English pronunciation – PROBLEMS

The Czech and English languages are more different than similar. Hence, there are many problems in pronunciation for Czech native speakers speaking English and for English native speakers speaking Czech. These errors in pronunciation cause problems in understanding, and without understanding, communication is ineffective.

Phonemes

Firstly, talking about phonemes in the Czech language, there are 36 phonemes (Nolen-Hoeksema et al., 2012, p. 377). On the other hand, in the English language, there are 44 phonemes. With this in mind, for the Czech native speakers, there are at least eight phonemes they have probably never heard or pronounced before. In addition, other articulation muscles need to be trained to pronounce new phonemes. For instance, the English sounds /θ/ and /ð/ are not in the Czech language and are entirely new for Czech learners. Therefore, a teacher is expected to explain and show how these sounds work, and it is crucial to explain to learners how these sounds are made and how they can learn them. The /θ/, /ð/ sounds need a tongue

between the upper and lower teeth and are often exchanged/replaced with /f/, /t/ or /d/. The exchange of these sounds can lead to misunderstanding → tree /tri:/ x three /θri:/ have different meanings even though only one phoneme is changed. This phenomenon is called "Minimal Pairs" and is discussed in the following chapter (no. 7).

Aspiration

Secondly, aspiration is another English pronunciation feature, where Czech native speakers make mistakes due to not having aspiration in the Czech language. In English, the consonants /p/, /t/, /k/ are pronounced with aspiration. This phenomenon demonstrates that the phonemes /p/, /t/, and /k/ are not new for Czech learners; however, they are pronounced differently and may cause problems when learning a new language. Melen (2010, p. 28) claims that none of the consonants in both languages are identical. He demonstrates it in the example of /dʒ/, where he states that the Czech /dʒ/ is infrequent in the Czech language and is used mainly in assimilations or foreign vocabulary.

Force of Articulation

Thirdly, the force of articulation at the end of the word is another difference and potential problem in the English language for Czech native speakers. In Czech, consonants at the end of the word are pronounced voiceless: lev → /lef/, snad → /snat/, polez → /poles/, tudíž → /tuji:f/. However, some of the ending consonants are pronounced voiced in English: dogs → /dɒgz/, hard → /ha:d/. The vowel before a voiced consonant is longer hard /ha:d/ x heart /ha:t/ even when the transcription shows the same length. Also, when having the same spelling for nouns/adjectives and verbs (use, close, etc.), verbs are voiced (/ju:z/), and nouns or adjectives are voiceless (/j:us/). Furthermore, the endings –s, –ed are pronounced differently. The –s ending can be pronounced as /s/, /z/, or /ɪz/, and the ending –ed can be pronounced as /t/, /d/, or /ɪd/. When the word ends in a voiceless phoneme (keep-s, talk-ed), the ending is pronounced voiceless = /s/, /t/. On the other hand, when the word ends with a voiced phoneme (live-s, liv-

ed), the ending is voiced = /z/, /d/. The third option is adding the syllable /iz/, which comes after -sh, -ch, -x, -ss, -ge and /z/ (classes, ages), and the syllable /id/, which comes after -t or -d (created, needed) (Hicks, 2010).

Assimilation

Also, the Czech and English languages are different in forms of assimilation. The Czech language is typical of regressive assimilation, and the English language is the standard of the progressive form of assimilation. Assimilation is the influence of phonemes caused by their neighbour phonemes. Demonstrated in an example, the -s ending in the word "dogs" is pronounced voiced, even though it is voiceless. The specific reason for the circumstance is that the previous sound /g/ is voiced, which also influenced the following sound. On the other hand, the Czech language has regressive assimilation, which means that the sound affects the previous sound, not the following one. For instance, the word "svatba" has a voiceless /t/, influenced by the following sound /b/ (voiced). Therefore, it is pronounced as voiced consonant /d/ not voiceless /t/ = /svadba/.

Spelling vs Pronunciation

Finally, in the Czech language, the spelling equals the pronunciation, so what is written is said aloud. In the English language, the pronunciation system is more complicated and complex. Therefore, there are problems for Czech speakers because they are used to reading out what they see, but it does not work in English. In English, learners need to know how to pronounce what letter (or letters) (e.g. sh → /ʃ/, or oo /u/) and rely on their knowledge rather than simply reading the letters.

To sum up, there are many differences between Czech and English, and every difference can cause a problem for Czech learners learning English. These differences are not only in pronunciation, but these are the ones this thesis was focused on later on in the practical part.

Also, it does not mean that every Czech learner has all and always these particular issues, but these are the most problematic for most Czech native beginners.

7. Minimal Pairs

Minimal pairs are pairs of words that differ only by one phoneme in the same position in each word. Generally, it means that only one sound can change the whole meaning of a word, for instance: bit x bid, heart x hard, dogs x docs, or tree x three. Minimal pairs are essential so that the learners become aware that some minor mistakes in pronunciation can cause misunderstandings in communication. Also, it does not have to be a completely different phoneme or sound, and it can only mean a different length of a phoneme that can make a significant change, as demonstrated in words slip x sleep or ship x sheep.

Minimal pairs can be classified based on the type of contrast they have. According to Anyanwu (2008), selecting examples with as little contrast as possible is best. Ideally, they are from a particular morphological word-class such as verb, noun, or adjective.

Minimal pairs may be divided into subgroups – vowel and consonant pairs. Then, the consonant sounds may be divided into initial and final sounds. The examples of minimal pairs below are created by Alex Case (Englishclub.com, accessed online on 31/03/2022):

7.1.1 Vowel sounds

- /ɪ/ and /i:/ sit seat
- /e/ and /ɪ/ desk disk
- /e/ and /eɪ/ wet wait
- /æ/ and /ʌ/ bat but
- /æ/ and /e/ bad bed
- /æ/ and /ɑ:/ had hard
- /ɑ:/ and /ɜ:/ fast first
- /ɒ/ and /ɔ:/ cot caught
- /ɒ/ and /əʊ/ not note
- /əʊ/ and /aʊ/ know now
- /əʊ/ and /ɔ:/ so saw

7.1.2 Consonant sounds

- /b/ and /v/ **berry very**
- /b/ and /p/ **buy pie**
- /n/ and /ŋ/ **thin thing**
- /l/ and /r/ **alive arrive**
- /tʃ/ and /t/ **catch cat**
- /s/ and /ʃ/ **sea she**
- /f/ and /v/ **fan van**
- /f/ and /h/ **fat hat**
- /f/ and /θ/ **free three**
- /s/ and /θ/ **sink think**
- /ð/ and /z/ **with whizz**
- /dʒ/ and /z/ **page pays**
- /d/ and /dʒ/ **bad badge**
- /f/ and /p/ **coffee copy**
- /kw/ and /k/ **quick kick**
- /tʃ/ and /dʒ/ **cheap jeep**
- /tʃ/ and /ʃ/ **chair share**
- /d/ and /ð/ **day they**
- /t/ and /θ/ **tree three**
- initial /f/ and /p/ **fast past**
- initial /k/ and /g/ **came game**
- initial /t/ and /d/ **two do**
- initial /v/ and /w/ **vow wow**
- initial /g/ and /w/ **gate weight**
- initial /h/ and /r/ **hat rat**
- initial /r/ and /w/ **rich which**
- initial /dʒ/ and /j/ **jaw your**
- final /k/ and /g/ **back bag**
- final /m/ and /n/ **am an**
- final /t/ and /d/ **hat had**
- final /s/ and /z/ **bus buzz**
- final /n/ and /ŋ/ **thin thing**
- final /ŋk/ and /ŋ/ **think thing**

Minimal pairs are for beginners hard to distinguish because the changes are tiny. Furthermore, it is different when we have on one side separated minimal pairs without context and on the other side minimal pairs in context. If students are asked to distinguish between "man" and "men", it is more challenging than distinguishing between sentences containing these words such as "There is a man." and "There are two men." The specific reason for the circumstance is that context helps us get the meaning, and we (referring to people in general) can think about what was said and what the speaker meant if we did not understand.

7.2 Receptive Training of Minimal Pairs

The receptive functions of a language were discussed in greater detail in chapter 5, where the definition stated that the receptive functions = understanding. Since understanding plays a significant role in communication, it should be one of the main aims teachers want to teach their

students. Another term used for this is **intelligibility** = the quality of being possible to understand (Cambridge Dictionary, accessed online on 06/04/2022).

To distinguish problematic minimal pairs by listening, it is crucial to pronounce them correctly. If the teacher is unsure about him- or herself, it is possible to use an audio recording of the specific sound, word, or sentence. The recordings of words or sentences are the best because children can hear them in a context. Also, they have a better idea of where the sound occurs (what words), which other sounds they are often associated with, or how is it connected to different phonemes in terms of progressive assimilation. However, it is also helpful to demonstrate the individual sounds before demonstrating them in words, sentences, or texts for better imagination.

For receptive training, many activities can be used. It is essential to remember that young learners can not read yet, so the exercises must be customised. The ideal activities are connected with movement or pictures. It can be demonstrated on the memory game, flashcards, pantomime, circle what you hear, or dominoes. It is easier to pick up activities with older students because there is no unique limitation.

Practical part

8. Introduction of the practical part

Minimal pairs are not the only essential part of pronunciation; the stress, intonation, or liaison are significant too, but as mentioned in chapter 7, minimal pairs change the meaning of a word, and therefore they are vital and exciting to show to learners too. In the theoretical part is stated that for younger children, second language acquisition is easier (chapter 4.3). Also, young children are in the critical language acquisition period, meaning they learn faster than adults or older children. Hence, they can learn a lot at an early age, and when they listen to the second language, they take in and perceive it. The theoretical part also states that the Silent

Period method (chapter 4) is based on perceiving more than actively using the language; that is also what I was working on within the practical part. Therefore, it was decided to test young learners in the practical part and see if such small children can distinguish between sounds.

This thesis will introduce how I proceeded, which methods were chosen, and why. Then, the description of what was done with the children, how it went in kindergarten, and if it all worked out will be described. Finally, the results and the overall process will be analysed.

9. Methodological approach

I planned to use the theory from the theoretical part in kindergarten and my experiences as an English language teacher. As mentioned in the theoretical part, the best age to learn a language is before attending school. Therefore, it was decided to teach and test minimal pairs in kindergarten because that is the beginning of language acquisition. At the same time, children's age and the fact that their attention span is concise had to be considered; they can't read and write and cannot sit for a long time. Also, I worked with Krashen's Silent Period, which is focused on children's listening and perceiving rather than talking and actively using the language. The time length I spent with children in the kindergarten was around 30 minutes per lesson so that they would pay attention, ideally, the whole time.

Minimal Pairs

For the receptive training of minimal pairs, I chose three groups challenging for Czech speakers. The groups were selected to represent the beginning, middle, and ending phonemes. The first group of the starting phonemes /f/ and /θ/ is represented by words: froze x throws, fin x thin, first x thirst, free x three, fought x thought, and frill x thrill.

Then, the second group of the middle phonemes /e/ and /æ/ is represented by words: jam x gem, bad x bed, man x men, bag x beg, pan x pen, and dead x dad.

Finally, the third group of ending phonemes /t/ and /d/ is represented by words: bat x bad, write x ride, cart x card, kit x kid, heart x hard, bright x bride.

These particular words were chosen because they can be easily demonstrated by pictures, actions, or pantomime. They are problematic for Czech learners because sounds /θ/ and /æ/ do not exist in Czech, and the sounds /t/ and /d/ are different types of assimilation in both languages (progressive x regressive). Also, these words were chosen because it was possible to play their pronunciation out loud in more than one dictionary (in some cases, at least one). Before stepping into the classroom, I prepared recordings of these words from dictionaries and listened carefully to pronounce them as well as the dictionaries did. For my listening, I used the Lingea Dictionary, DeepL Translator, Google Translator, and Cambridge Dictionary, and for the recordings for children, I used Lingea Dictionary. Only the word throws was taken from Bing Dictionary because nowhere else it was available.

Before testing the three groups of minimal pairs, they will be tested and worked with. The introduction to minimal pairs is going to be with the use of pictures and recordings of particular words. Every minimal pair will be shown in two images (e.g. minimal pair: bad x bat has two pictures – one represents the word bad, the second represents the word bat), and a recording of the word will always be played along. Every minimal pair will be repeated at least five times when introducing it. The repetition includes the recording sounds and my pronunciation of the word so that learners can see my lips moving. After that, I plan to play one sound and ask a particular learner to show me which picture (of the two) it was. Also, I prepared two games that are going to be played when revising or when I will need to see who hears the sounds and who does not. The individual lesson descriptions will describe these little games and add more details (Chapter 10.1).

Furthermore, the English lessons are not only about the drill of minimal pairs, so other topics (such as introduction, colours, numbers, body parts, or movement) will also be practised.

The introduction contains phrases such as: "My name is... or What is your name?". Colours will be practised through the song "Red, Yellow, Green, Blue" and the colours children will wear that day. Numbers will be introduced by fingers, loud counting and pictures of numbers. Body parts are going to be submitted through the song "Head, Shoulders, Knees and Toes". Finally, movement will be shown through the song "Walking, walking", which will also be used for concentration purposes when learners lose focus.

Testing is planned in the fourth and the last lesson (initially the sixth one). The fourth lesson testing is intended to show whether learners hear a difference between the particular pair of words and whether the methods and teaching style are beneficial. This test will consist of three pairs (one for each sound) and one extra pair that learners choose from a group I consider most successful or easy for them to motivate them. Due to the pandemic, many missing children are expected; hence, this test will be made with those who were not missing or were missing only a few times.

The final lesson's testing will contain three minimal pairs from every group = nine pairs. These pairs are going to be both challenging and accessible. That means couples that the children did not have problems with or could remember easily and those introduced in the last lesson before testing, or the problematic ones. This test will be done only with the older learners; younger learners will have the same test from lesson four. The division into older and younger children should help everyone concentrate better. Also, younger children have a shorter concentration span than older children; hence they have a quicker test.

The tests will be evaluated as follows: learners see two pictures, hear one sound (word), and decide whether they listened to picture A or B and circle the particular image. After the test, the correct answer will be shown. This test is chosen to show me if the young learners really can hear the difference and if they learned new vocabulary. Also, from the lessons, they should connect the sound and the particular picture in their head. I believe that children will

understand this test and will not get unnecessarily confused about what to do. At the same time, I wanted each word/picture to appear only once because I believe that otherwise, it would be too complicated for the children.

10. Receptive Language Training of Minimal Pairs in Kindergarten

Firstly, I consider it essential to introduce the kindergarten where I worked with the kids. It was MŠ Sluníčko in Pavlovice in Liberec. Children were split up into several classes according to their age. I was in a class called Včelky. This class was logopaedic and focused on children's speech. There were 24 children from four years old to five years old. The class was a classical nursery two-room class with many colours, toys, and children's art projects. The first room had tables without carpet for working and eating, and the second had a rug, toys, and space for playing or talking about specific topics. I was always in the second room with the children because we needed space for moving. Also, we sat on the rug and talked or played games most of the time.

Secondly, let me introduce the group of children that I worked with. As I mentioned, the class consisted of 24 children, primarily girls. However, the maximum number of children I had in one lesson was 17. An ongoing pandemic mainly caused that. As I introduced earlier, the age of children was between four and five years, and the age was perfectly cut into halves – 12 children were four years old, and 12 were five years old. These children had not crossed the English language before except for two girls and two boys who knew the colours and numbers in English.

Also, it is important to mention that I planned to visit a different kindergarten, but it was impossible to combine because of full time-schedules and lack of space where I could teach a group of children English. The former plan was to teach around seven children at the age of five every week. However, I had to find another kindergarten to teach English. And I used to

do my pedagogical training at Sluníčko kindergarten at my secondary school, so I knew the environment and the teachers. Nevertheless, MŠ Sluníčko could not offer me either the same age class or the number of children in a lesson as the original kindergarten, so I had to adjust my plans later.

10.1 The Receptive Training of Minimal Pairs

First Lesson's Structure

My plan for the first lesson was to introduce English overall. I did not want to immediately start with the receptive training of minimal pairs because it would be meaningless. Firstly, I wanted to introduce the language, so the first lesson was about introduction, games, and only the first minimal pair: **froze** x **throws**.

Teaching aids: speaker, pictures (froze x throws), Teddy bear, papers, smartphone

Lesson plan: Firstly, I will take Teddy, and we will introduce ourselves to the children: "Hello! My name is Anežka, and this is Teddy." Teddy: "Hello, kids! My name is Teddy, and this is Anežka. What is your name? My name is (child's name). Nice to meet you (name)!" (If children do not understand the instructions, I will use the Czech language.) After the introduction, Teddy repeats everyone's names, and suddenly, he freezes. My reaction will be: "Oh, Teddy **froze**." After that, I will demonstrate what froze means in pantomime and connect it with a picture. I will then show them an image of a man who **throws** a ball, and we will create paper balls and throw them. The children and I will alternately pantomime "froze" and "throws." Then, I planned to play the word's recording from my speaker so that children would hear the proper pronunciation. After that, I will place both pictures on the floor – one on the right side of the room and the second one on the left side. Children will listen to the recordings, and according to what they hear, they will go to one or the other side near the picture. I will then play the sound once more and say who had it correctly.

Other Lesson's Structures

In the second lesson, the introduction will be revised again with Teddy. Then we will spend some time learning the colours with a song called: Red, Yellow, Green, Blue and then we will add other colours that the children will be wearing. Then, I planned the revision of the minimal pairs **froze** x **throws** the same way as in the previous lesson. After revision, I will add other two pairs of words: **bad** x **bat** and **dad** x **dead**. They will be practised in the same way, which means I will play the recording of the terms and connect it with the pictures, then I will place the words to the left and right side of the room, and the children have to distinguish the sounds.

The third lesson is very similar. Firstly, I want to revise everything the children have learned, including the introduction and colours. After that, I planned to run through the minimal pair sets differently. I will divide the kids into two groups. They will stand in two lines (group one = line one), and I planned to lay one picture in front of them. For example: In front of the lines are the pictures. The first line has an image of the word **bad**, the second one the word **bat**. Then, I will play one word. The child first in the line is supposed to look at the picture in front of them, and if the image and the sound match, they are supposed to shout or raise their hands. If it does not match, they should shake their heads like no. After that, I will introduce four more new pairs: **jam** x **gem**, **first** x **thirst**, **fin** x **thin**, **fought** x **thought**. I will always play the recording of the particular word, say it out loud, and show the picture. Then, I will play the second word from the pair. Then, I will play one word, and the children will point at the correct picture (A or B).

In the fourth lesson, we will make a quick revision just by hearing two words, and children will decide whether that was the A picture or the B picture (e. g., dad or dead). After the quick revision, we will learn a new song called: "Walking, walking" so that the kids will have some movement and fun during learning. After that, we will learn three other minimal pairs: **frill** x **thrill**, **bad** x **bed**, **write** x **ride**. It will be taught the same way as in the previous lesson (play

the recording, show the picture, let them distinguish, and point at the correct image matching the word).

I also planned to test a group of older kids in the fourth period. The plan was to give them four pairs of pictures, which we first repeated at speed, and then I played one sound, and the children circled either picture A or picture B of the pair.

The fifth lesson is more or less planned in the same way. Firstly, the revision of the song "Walking, walking" and the "colour song" will be made. After that, minimal pair training will follow. The first step is to revise everything previously learnt and add four new pairs: **man** x **men**, **kit** x **kid**, **card** x **cart**, **bag** x **beg**. The revision and the learning will look the same as in previous lessons.

The sixth lesson was planned to be the last one at first, but I decided to add two more after the first lesson because I knew we would not make it in six classes since I wanted the kids to enjoy English and not just drill minimal pairs. Firstly, the song "Walking, walking" will be sung, then we will revise the colours and add numbers. After that, the minimal pairs revision is planned. Also, after the classical revision, the game played in two lines will follow as in the third lesson. Finally, the four new minimal pairs will follow: **free** x **three**, **heart** x **hard**, **bright** x **bride**, **pan** x **pen**. At the end of the lesson, I will ask children what pictures they like the most to put them into the testing sheet.

The seventh lesson is only about revision, singing, and playing. Firstly, I want to sing the songs: "Walking, walking" and "Red, Yellow, Green, Blue." Also, I plan to revise the colours and numbers and sing a new song connected with movement: "Head, Shoulders, Knees, and Toes." After that, we will revise the children's favourite minimal pairs and the others. The three first minimal pairs will be in lines (the game) and the other customarily revised. In the end, children will decide what they want to do, for instance, what song they want to sing or what words the kids want to learn if they are interested in something. At the end of the lesson, I will

tell them the plan for the two last classes. The eighth will be just the revision of minimal pairs and an explanation of the form of the test. The ninth lesson will be only testing. Ideally, I planned the eighth and the ninth lesson to be in two days right one another.

The last (eighth) lesson will be all about repetition. We will be sitting in a circle, and the child on the line (after the circle) will be assigned two pictures (a minimal pair), will hear one recording and will have to identify which picture it was. Everyone gets a turn. The minimal pairs that we do not get to go through in the circle, we go through together at the end. And at the same time, I will tell the children what will happen in the next lesson – testing.

10.2 Evaluation

Every class ended with an evaluation. The evaluation contained learners' opinions (how did they like the lesson) and my notes about which methods worked and what was entertaining for the children. Also, it contained reflection on what went wrong, what did not work, or what the children learned and already knew. The next lesson was then adjusted, or the preparation was recreated. Therefore, some activities are repetitive because they were beneficial.

For the sake of the ongoing pandemic, it was tough for the children to remember some words, vocabulary, and sounds. Also, my illness caused the need to postpone the lessons twice, and the classes were two times quite far apart.

The first lesson was on October 11, 2021, and the last was on February 7, 2022. In the first lesson only eight children came, others were ill. That was a bit harder; therefore, we had the introduction revision in the second lesson, where the number of children was higher (14). The average number of young learners in the lectures was 14. Sometimes it was hard in this big group, but I did not have a chance to split them up into groups.

Therefore, many songs and movements were used (inspiration from the TPR method = total physical response). Occasionally, improvisation was used during the lessons when

children could not concentrate anymore. In that case, we started running or singing a song and then returned to the previous activity.

The lecture was sometimes a bit longer than the planned 30 minutes, primarily because of some games or the children wanted to talk to me after or before the lesson.

The structure of the lessons was good, although from time to time, motivation or the activity took longer than I expected. Otherwise, no other struggles were noticed during the lessons; all activities went as planned.

11. Testing

Every learner got their paper with pictures (the test). They were also given a pencil and sat separately from each other all over the classroom. Firstly, the instructions were introduced; afterwards, one sound was played (one or more times), and the aim was to circle the correct picture that corresponded with the sound.

The fourth lesson testing was done only with the children present in all the lessons so far or absent only once. It was done with eight children. It was only tested for me to see if they learned something and understood what we were doing. There were four pictures of minimal pairs: **jam x gem, bad x bat, dad x dead, froze x throws**. The /e/ and /æ/ minimal pair is in this test twice because it seemed like the most manageable group of minimal pairs for these young learners, and I wanted to encourage and motivate them. Therefore I made the test a bit easier and let children decide which minimal pair from the group /e/ and /æ/ they would like to have in the test. The group of children was made of five boys and only three girls:

Anička was present in all the lessons, and she did very well. She had previous knowledge of the English language – she knew numbers, colours and some animals. She was always listening and working with me. Her answers were correct, and it was without mistake.

Honzík was also present at every class we had. He was not very focused and had no previous knowledge of English. His results were 50/50. He had two mistakes (bad x bat, froze x throws).

Tonda was present in every class and was calm and paying attention. He was unsure about the test but understood what was happening with the second pair and was more confident. He had only one mistake in the last pair (froze x throws).

Nikolka was missing only in the first lesson. She was very talented even though she could only count to ten in English before these classes. In the beginning, she was unsure about the exercise. However, she had only one mistake (froze x throws), which was probably caused by the fact that she was absent in the first lesson, where this pair was practised.

Kristián was present in every lesson so far. He was very skilful. He did not pay attention, and he was disturbing other children. Still, he did very well on the test, and the answers were without any mistakes.

Sebík was missing only once, and he was kind and reticent. He seemed to be confident about the test. Nevertheless, he made two mistakes (jam x gem, bat x bad). The error in the first pair may be connected with the fact that it was taught in the previous (third) lesson, and he was absent.

Pepa missed the first lesson so far but was very undisciplined and talky. He was the "funny guy" and always talked to everyone. He was not listening to the audio, so his results were terrible. He only had the last pair correct (froze x throws), but others were wrong. I believe he would have done much better if he had concentrated more.

Emička was missing in the second lesson and had not encountered English before. She had only one pair (dad x dead) incorrect, probably because she was absent when that one was taught and practised.

The ninth lesson was the final testing lesson to find out if young learners are able to distinguish these problematic minimal pairs. The eighth and ninth lessons followed two days in a row so that at the beginning of the ninth, we didn't have to repeat anything and could finish everything just in time. In the beginning, I divided learners into the younger and the older children. Also, if there were outstanding children, I put them into the older group. There was one boy whose first lesson was the eighth one because he had been ill for a long time, he was five years old, but he went with the younger group of children.

Young children were tested the same way as some children in the fourth lesson – it was the same test. It contained four minimal pairs with words: **jam x gem, bad x bat, dad x dead, froze x throws**. There were eight children – five girls and three boys.

Lucinka missed a few lessons, was also the youngest girl, and made two mistakes (gem x jam, dead x dad). Nevertheless, she hardly knew how to hold a pencil, so I do not consider it failed.

Emička was always talking to other children when everyone should have been listening. She made two mistakes (bad x bat, dead x dad). These both are from lesson two, where she was absent. Also, she wrote both tests in lessons 4 and 9 and made the same mistake in pair dad x dead in both tests.

Sandra missed a few lessons but was very interested in English even though she had never heard that language before. She made one mistake (bad x bat) and skipped the minimal pair dead x dad.

Rozárka was talking a lot with Emička, so they both did not listen very well, but she still managed to have only one mistake (gem x jam), which I think was because she was not paying attention because, in training, she could distinguish between the two.

Anička K. was present only five times, but she always sat beside me and listened closely. She had English before, so she knew some English vocabulary. She had everything correct.

Dan was present only four times, so I tried to involve him as much as possible in the revision lessons so that he understood everything and still could pass the test. And he did; he had everything correct.

Benji was present only in two lessons because of a long-term illness. He was unsure about what we were doing, but he made only one mistake (froze x throws). He was older, so he should do the test for older children, but because of his illness, he practised only a few minimal pairs, so I decided to give him the shorter test.

Pepa only missed the first lesson. This test was his second one (he attended the one from lesson four). He seemed more concentrated than on the previous test; he did very well; he had everything correct.

Older children were tested through more sounds. The table contained ten minimal pairs selected from the lessons: **jam x gem, bad x bat, dead x dad, froze x throws, heart x heard, bag x beg, first x thirst, thin x fin, men x man, bright x bride**. Three pairs (bad x bat, heart x hard, bright x bride) represented the sounds /t/ and /d/. Secondly, three pairs (froze x throws, first x thirst, fin x thin) are the representatives of the sounds /f/ and /θ/. Finally, four pairs (jam x gem, dad x dead, beg x bag, man x men) represented the sounds /e/ and /æ/. The fourth pair, man x men, was added after revising in the seventh lesson. There it seemed problematic, so it was practised more times in a row to make it clear. Therefore, it has been added to the test to see if the confusion was smaller after the revision. The test was attended by nine children – three girls and six boys.

Anička had everything correct, as in the test from lesson four. She was a cautious listener and was very talented in English.

Niki had three mistakes (bad x bat, throws x froze, man x men). She missed only a few lessons and was talented but easily disrupted. She attended both tests (also in lesson four) and made the same mistake in froze x throws in both tests.

Elinka was concentrated during the test; nevertheless, she made a few mistakes (bad x bat, throws x throws, man x men) and skipped dead x dad. The last two might be caused by her absence in lessons one and four.

Tonda had almost everything correct; there was only one mistake (froze x throws). He wrote both tests (lessons four and nine) and made the same mistake in the same minimal pair.

Sebík was missing only in the third lesson. He made two mistakes (bag x beg, thin x fin).

Dami was ill for a long time and only attended the last three lessons. Still, he seemed like a very bright and intelligent child and made only two mistakes (thin x fin, beg x bag). He probably heard English before because he almost caught up with others.

Kristián was missing only once. However, he was very unfocused during the test. I believe that is why he left out these pairs dead x dad, froze x throws, heart x hard and made one mistake (men x man). He attended both tests, the first without errors; hence I believe these mistakes and skipping were caused by inattention.

Matty attended only four classes overall. He was very energetic, had problems focusing, and could only concentrate briefly. He started walking in the middle of the test and left out these pairs froze x throws, heart x hard, bag x beg, thin x fin, and men x man and from what he had, he made only one mistake (bright x bride).

Honza missed only the sixth lesson. He attended both tests (lessons four and nine), made only one mistake (thin x fin) and left out froze x throws which in the previous test he had wrong.

12. Analysing the Results

The least successful minimal pairs during the lessons seemed to be the /f/ and /θ/ sounds. During the test, these were the hardest minimal pairs for the learners. The test results show that distinguishing between the sounds /f/ and /θ/ was, on average, 67,8% successful. These

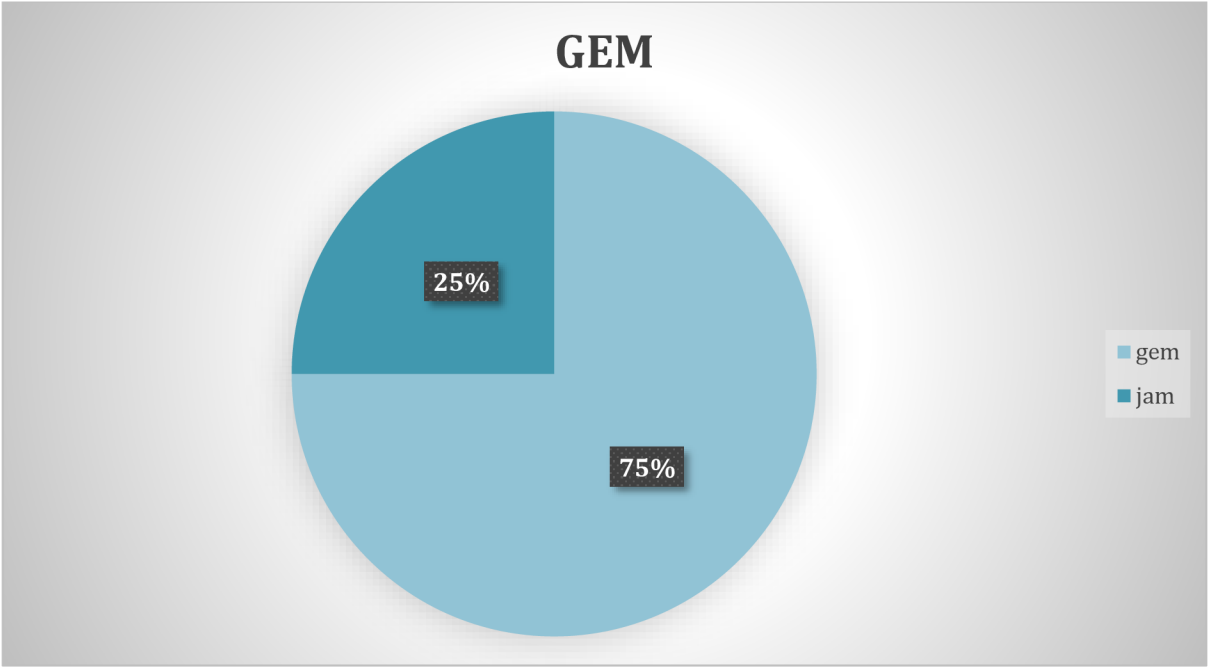
percentages are calculated using the arithmetic mean. I worked with the percentage success rate of each minimal pair demonstrated in graphs 1–18 below.

The sounds /t/ and /d/ seemed a bit easier for the kids in the lessons; they could hear the difference without me telling them or emphasising, and on average, it was 74,2% successful in the tests. The last pairs contained the sounds /e/ and /æ/, which also seemed easier for the learners than the /f/ and /θ/ sounds but harder than the /t/ and /d/. On average was /e/ and /æ/ 72,1% successful. According to this, the sounds of /t/ and /d/ were most easily distinguished for these young learners. Both consonants are pronounced the same in both languages, even though the type of assimilation is different. Hence, these might be easier than the other groups of minimal pairs. The /æ/ and /θ/ sounds do not exist in the Czech language.

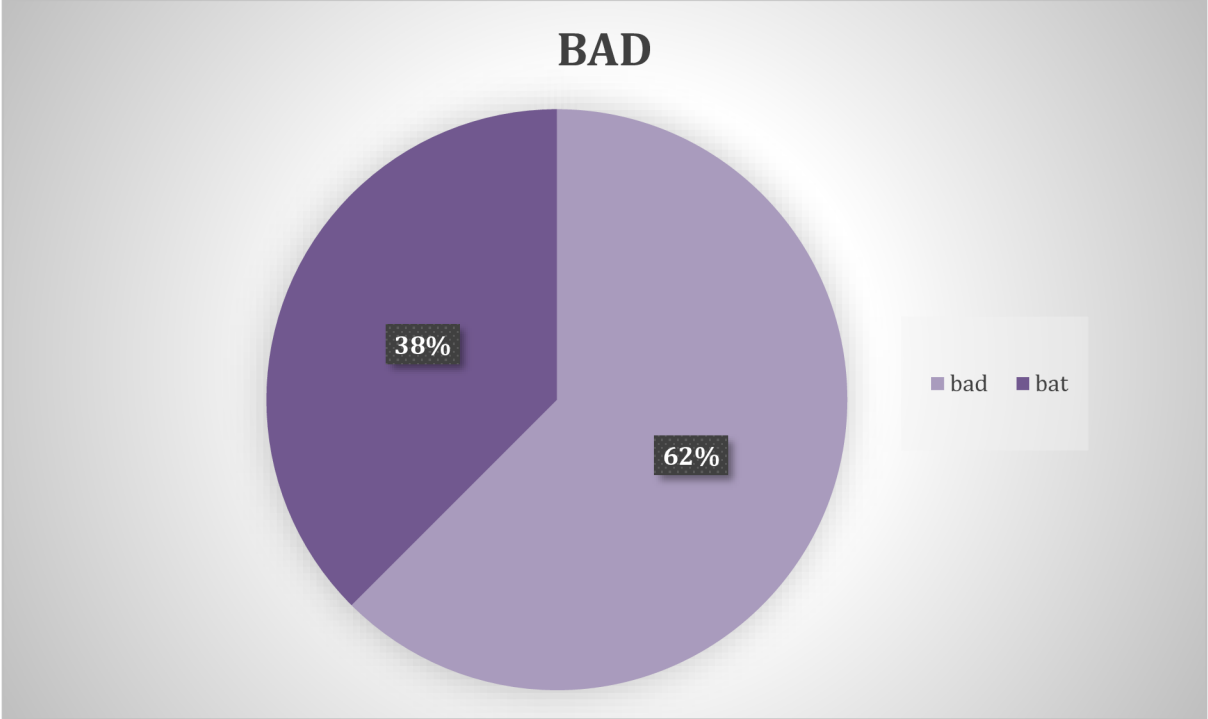
For a better imagination, see the graphs below. Each minimal pair has its graph. The name of the diagram is always above it. The correct answer is marked as the diagram's name (name = correct answer in the test). For instance, in graph 1, the name and the correct answer are GEM. Every graph also has its title under it, which includes its number and title, for example, *Graph 1: gem x jam*. Graphs 1–22 use three colours according to the group of minimal pairs to which they belong. Minimal pairs containing sounds /t/ and /d/ are purple, minimal pairs containing /e/ and /æ/ are blue, and the last group of pairs with sounds /f/ and /θ/ are green. Light colour always marks the correct answers, and dark colour identifies wrong answers.

Results from lesson 4

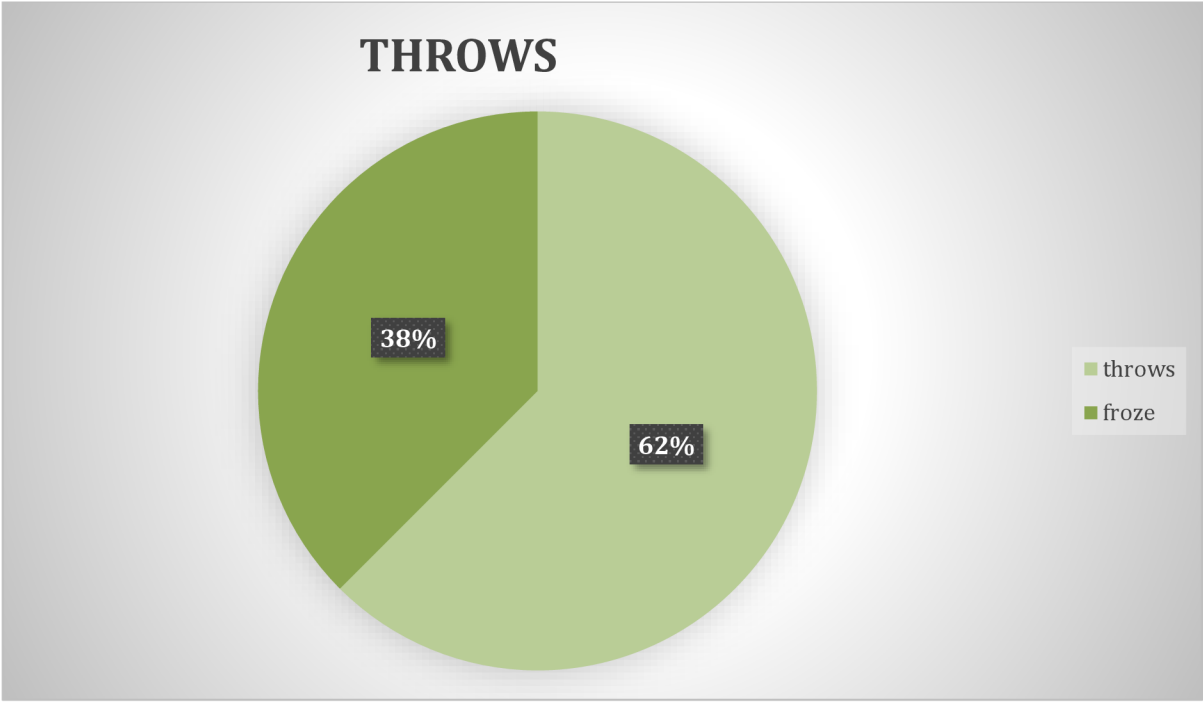
Firstly, Lesson 4 included the first test to see how the teaching and learning were going. This test gave me feedback on whether I prepared the lessons correctly and if the children were learning. Eight learners were tested (the ones who attended all or almost all classes). The minimal pairs tested were: gem x jam, bad x bat, dead x dad, and throws x froze.



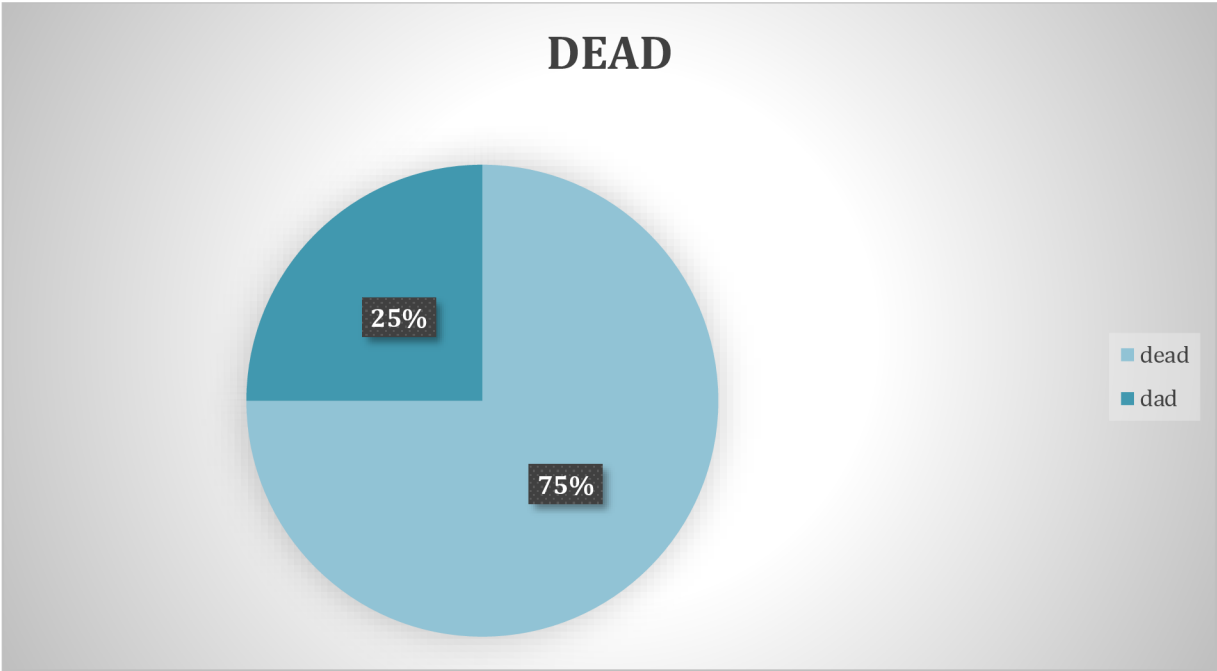
Graph 1: gem x jam



Graph 2: bad x bat



Graph 3: throws x froze



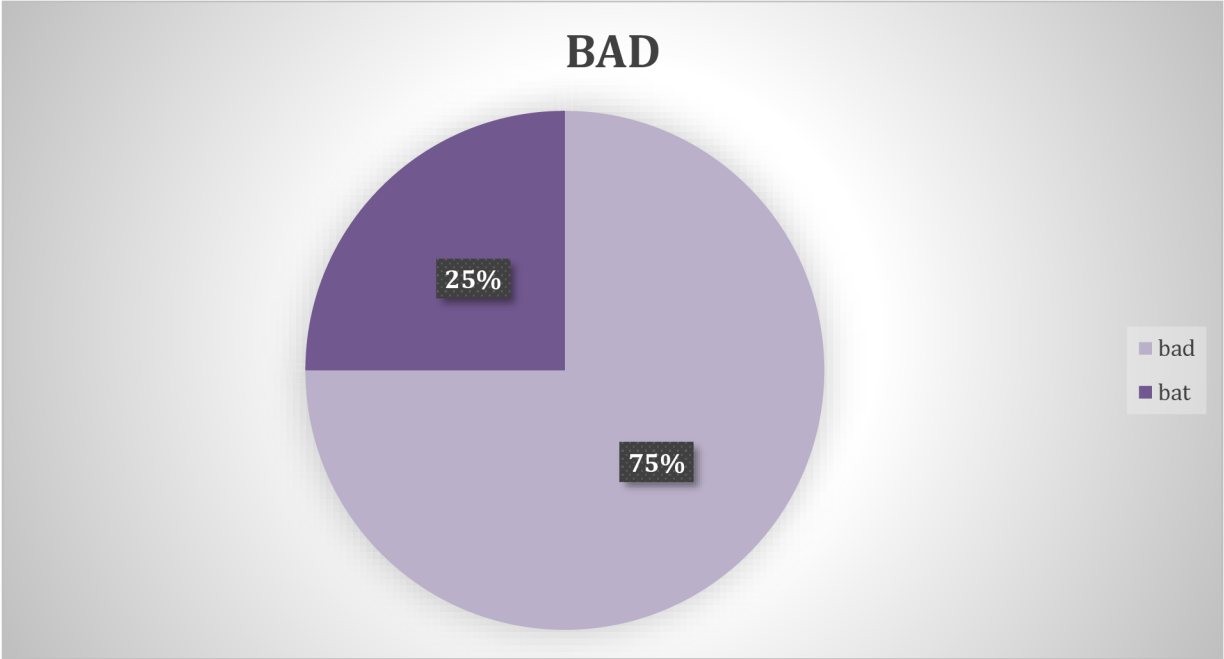
Graph 4: dead x dad

From graphs 1–4, it is visible that the results are close to one another. The pairs gem x jam and dead x dad were failed by 25% of learners (= two). The pairs bad x bat and throws x froze were failed by 38% of learners (= three). We can assume that the sounds /e/ and /æ/ were more manageable than the other two, which were visible in the lessons too. Only three children

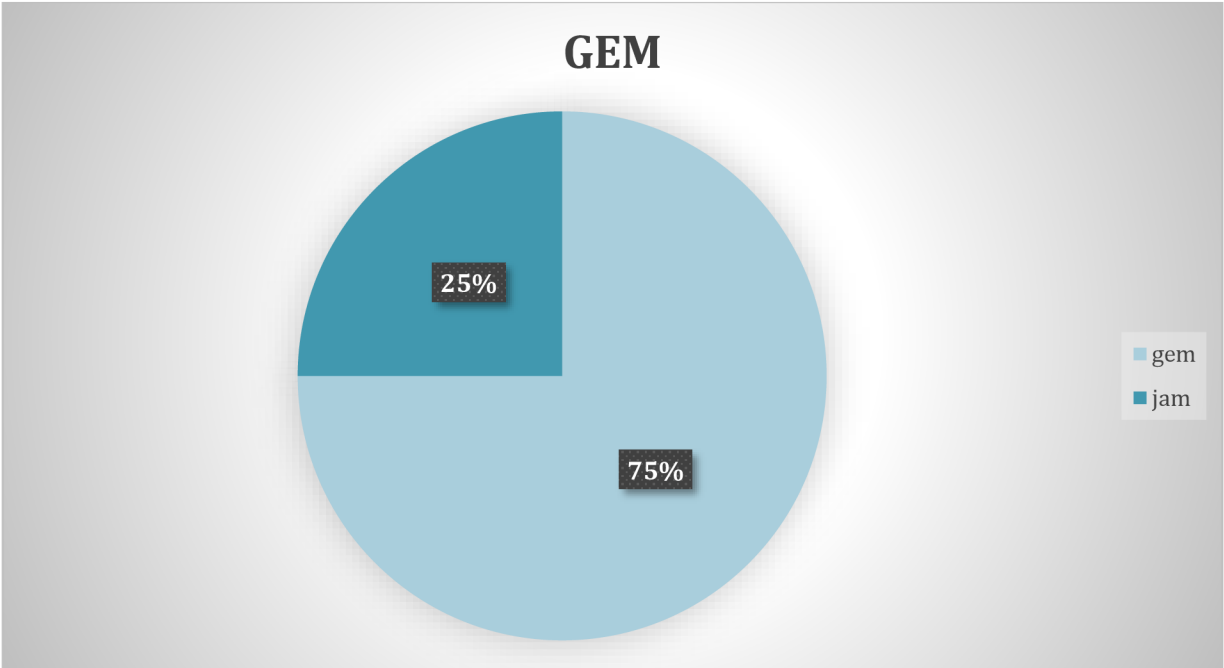
made more than one mistake in this test. Once, three errors were made by one child and twice, two by one learner. The arithmetic mean of success in this test was **68.5%**.

Results from lesson 9

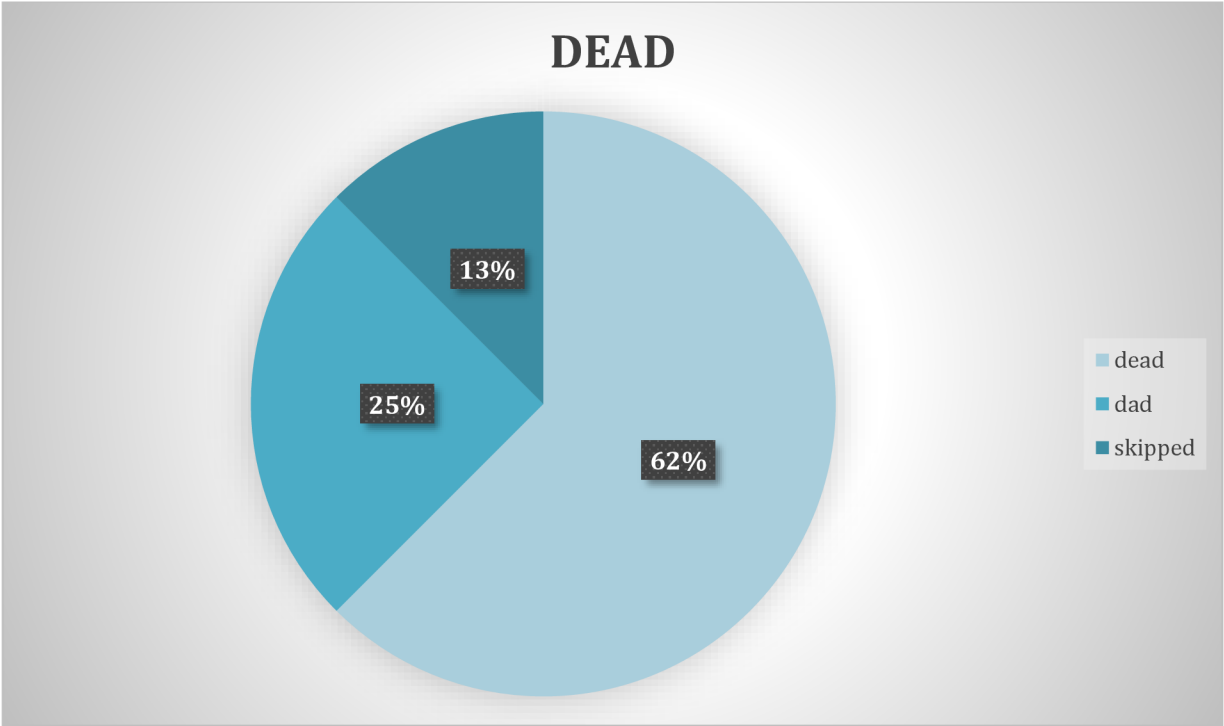
Secondly, the final testing in lesson nine was made with two groups. There was a group of younger children, which eight children made, and the given pairs were: gem x jam, bad x bat, dead x dad, throws x froze. This test was the same as in lesson four.



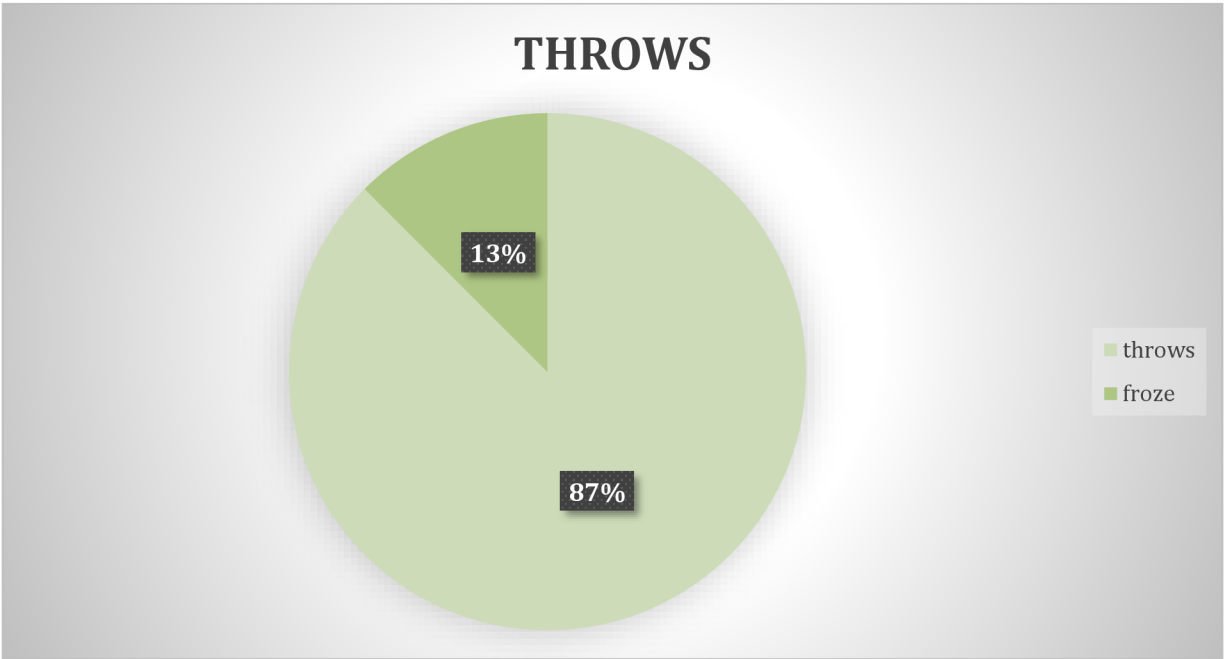
Graph 5: bad x bat



Graph 6: gem x jam



Graph 7: *dead x dad*

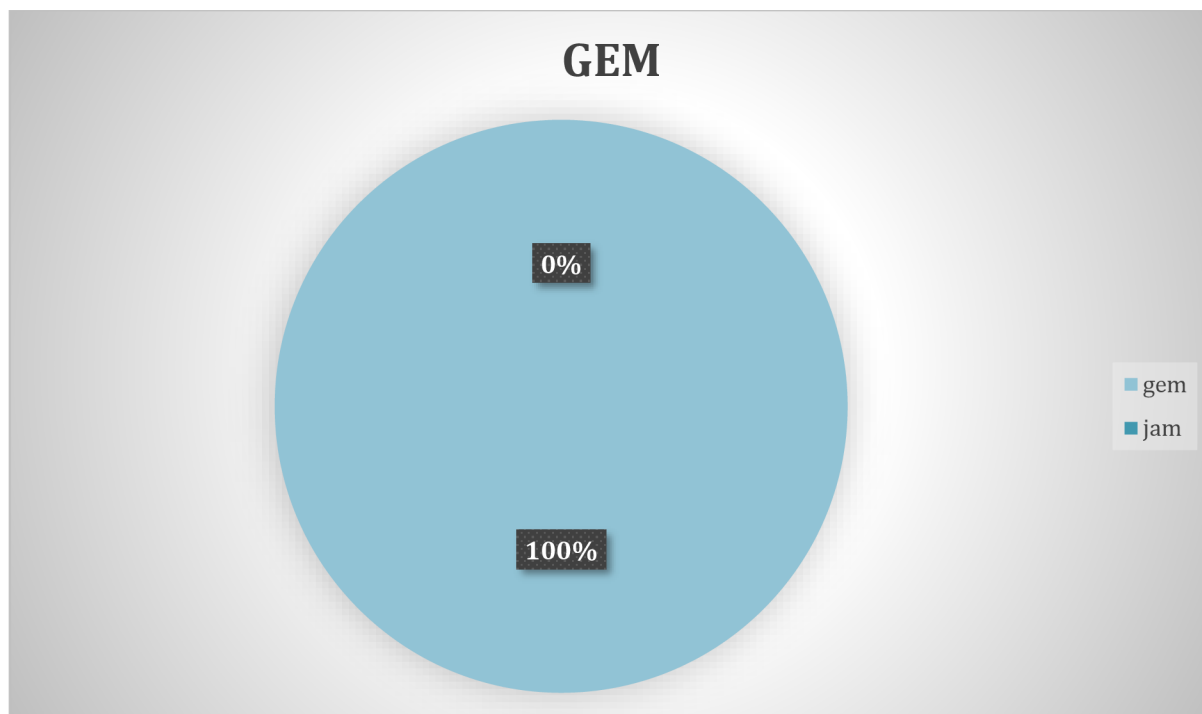


Graph 8: *throws x froze*

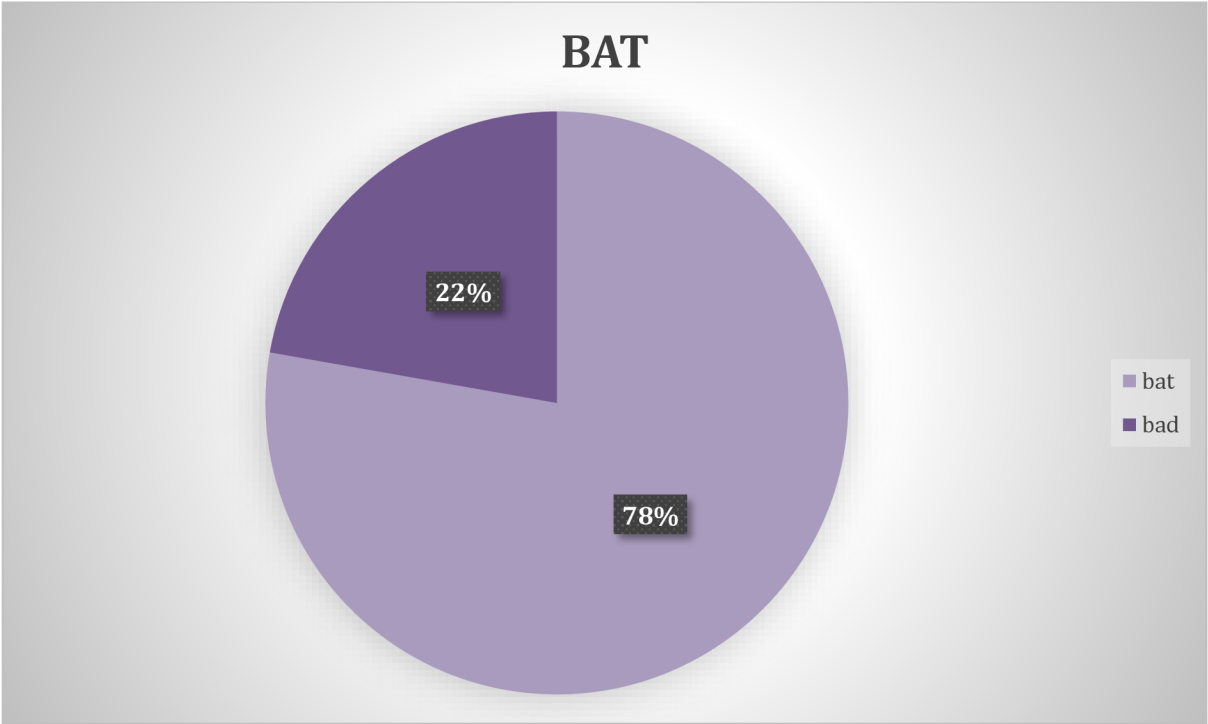
From graphs 5–8, it is visible that the sounds /f/ and /θ/ in words throws and froze were the easiest for young learners. Also, it was the most practised sound in the lessons, so the success was expected to be high. On the other hand, it was the most problematic sound during training lessons and revisions. The only mistake in this sound was caused by the learner, who

was ill for a long time and had almost zero chance to practise. The sounds /e/ and /æ/ were predominantly successful. In words gem and jam, only 25% (= two learners) made mistakes; in words dead and dad, 25% of learners made mistakes, and just 13% (= one) skipped this minimal pair. Finally, the third group of tested sounds were the sounds /t/ and /d/. In words, bad and bat, they were also predominantly booming, and only 25% of learners made mistakes. The arithmetic mean of success in this test was **74.75%**. This test was 6,25% more successful than the one from lesson four. Supposably with more practise the number would be even higher in the next one. Also, only two children made more than one mistake. Two children did this test twice (the first time was in lesson four), and one of them accomplished it without any errors. Finally, the group of older children tested in lesson nine consisted of nine young learners. The pairs tested were: gem x jam, bat x bad, dead x dad, froze x throws, heart x hard, beg x bag, thirst x first, thin x fin, men x man, bride x bright.

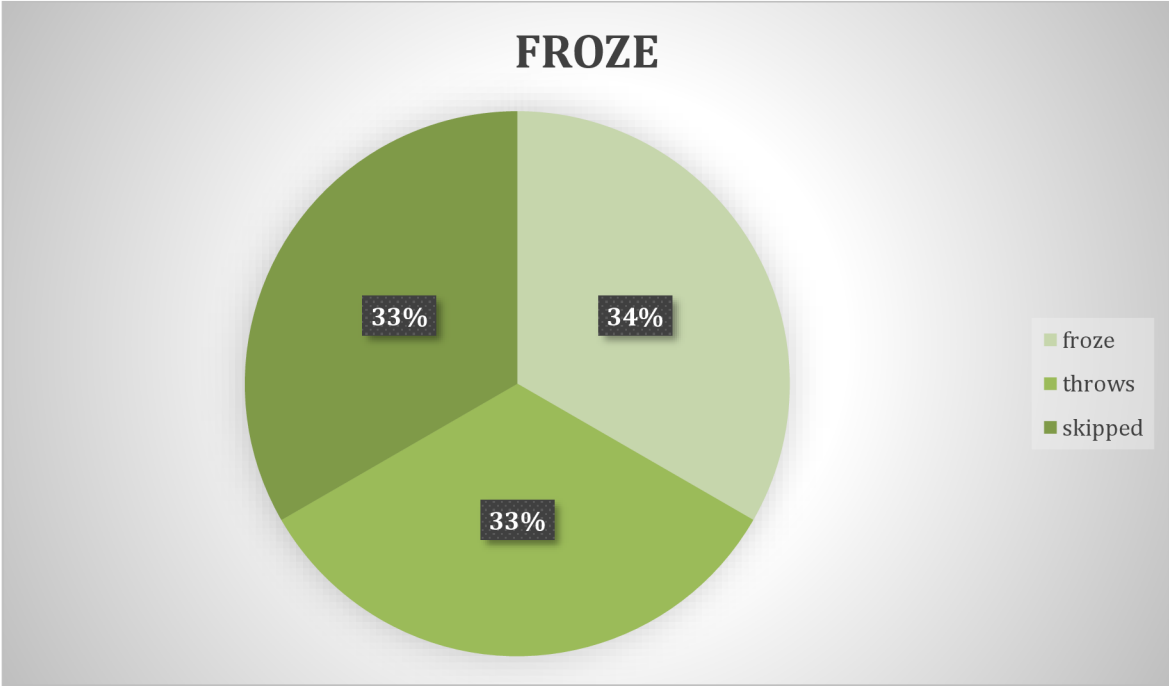
Test for older children:



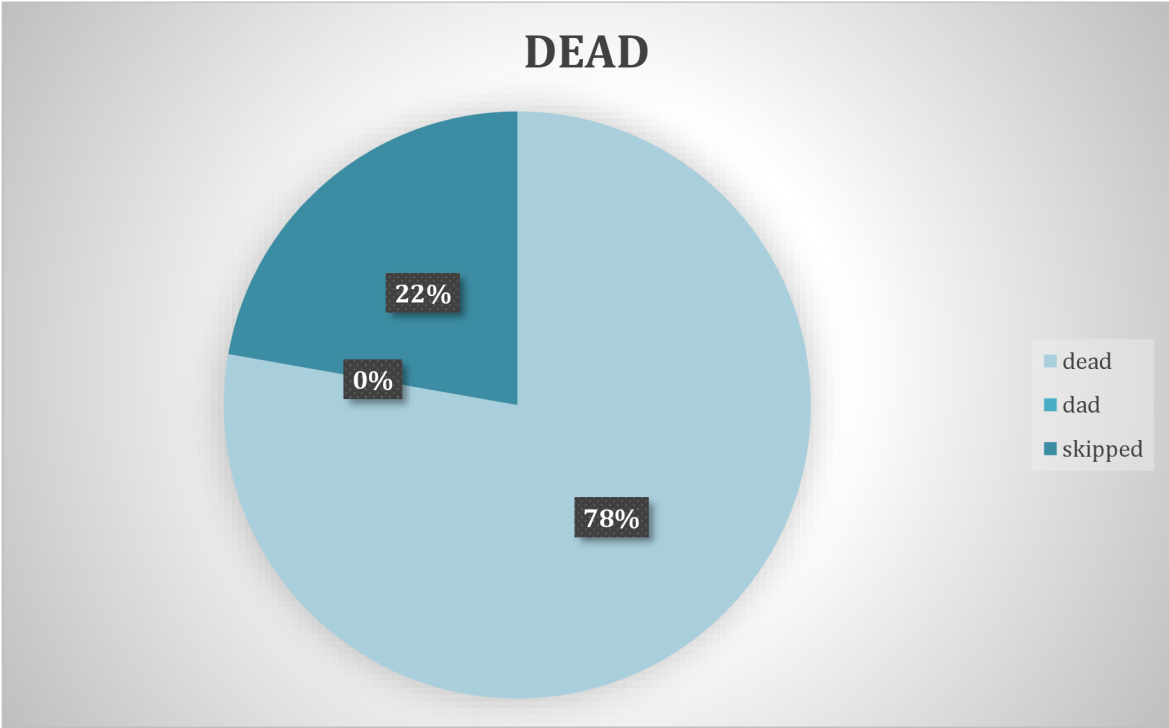
Graph 9: gem x jam



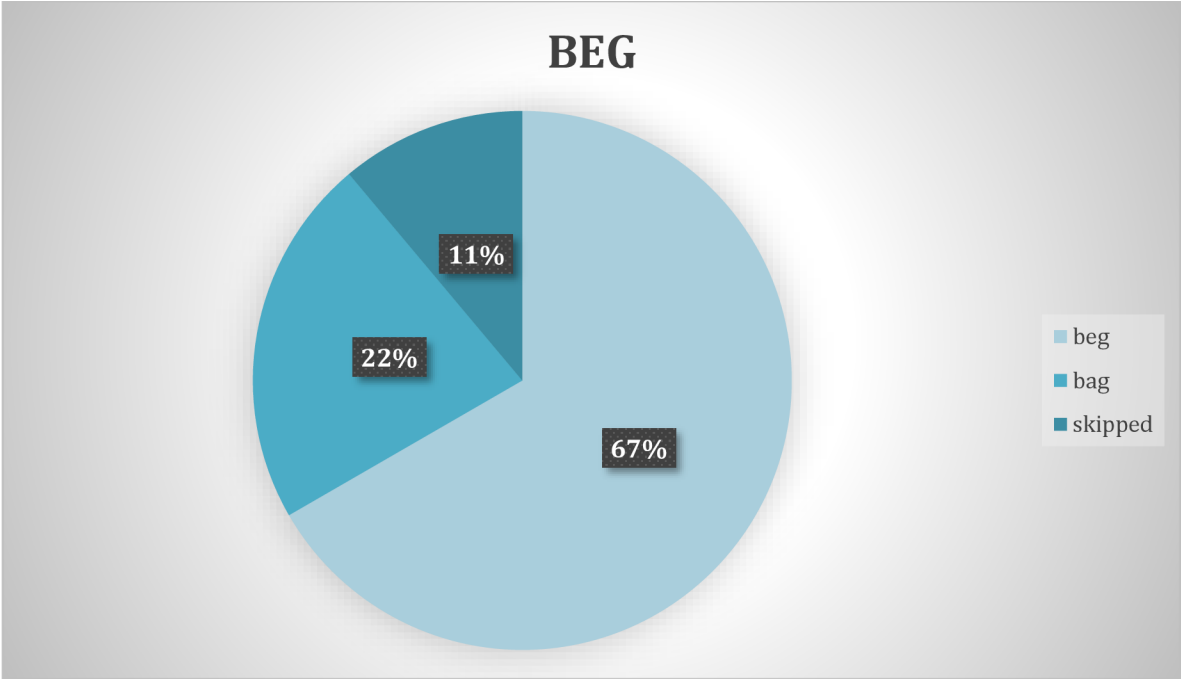
Graph 10: bat x bad



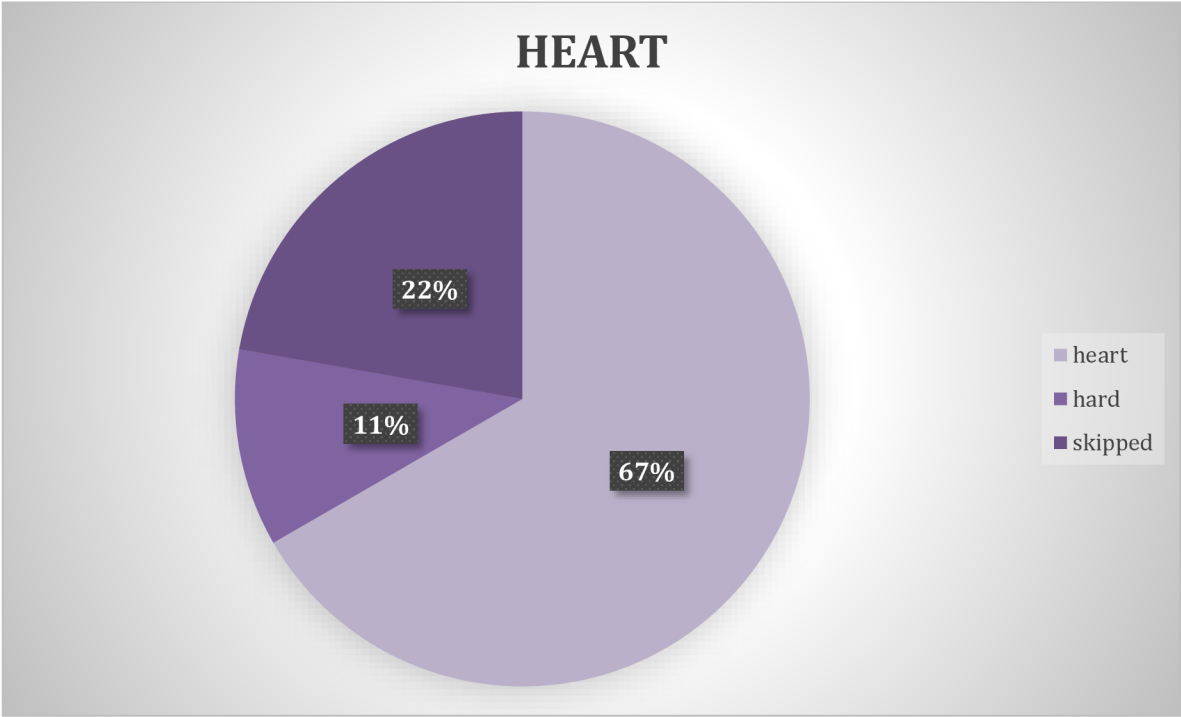
Graph 11: froze x throws



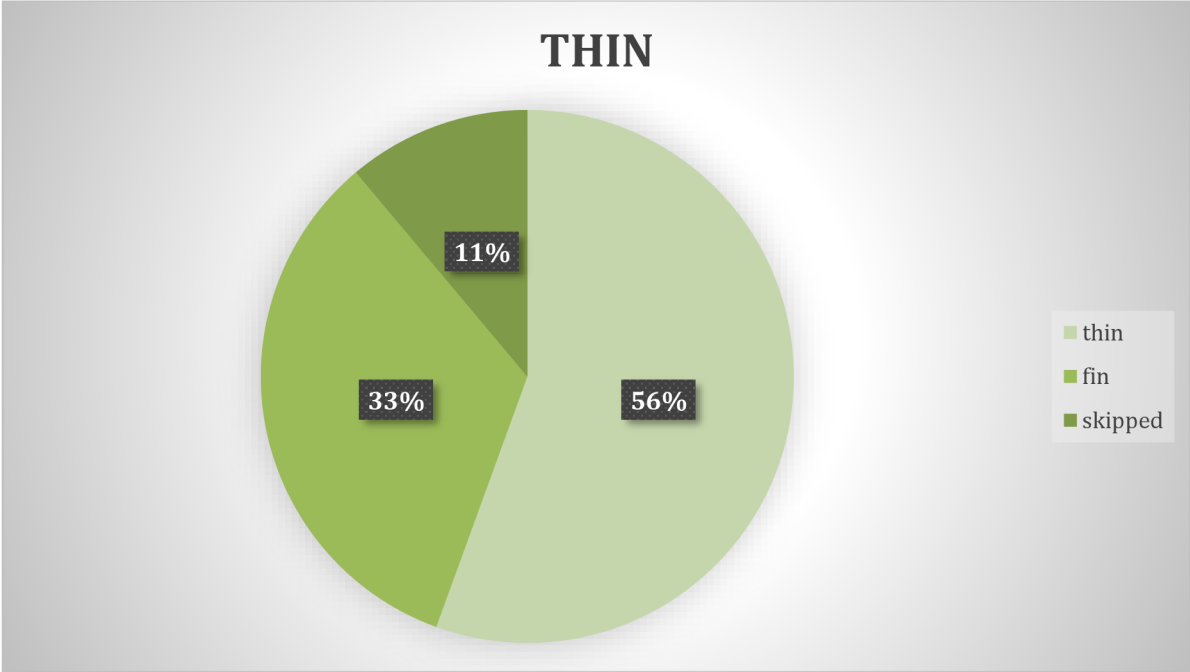
Graph 12: dead x dad



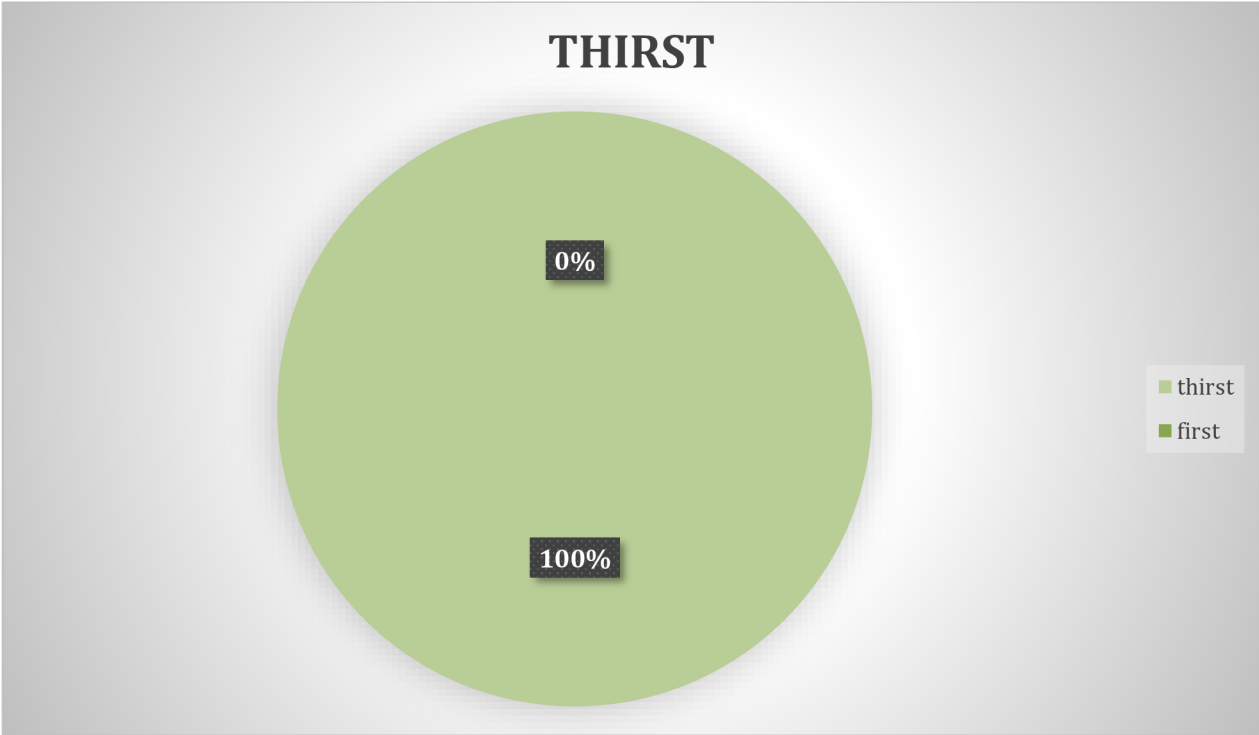
Graph 13: beg x bag



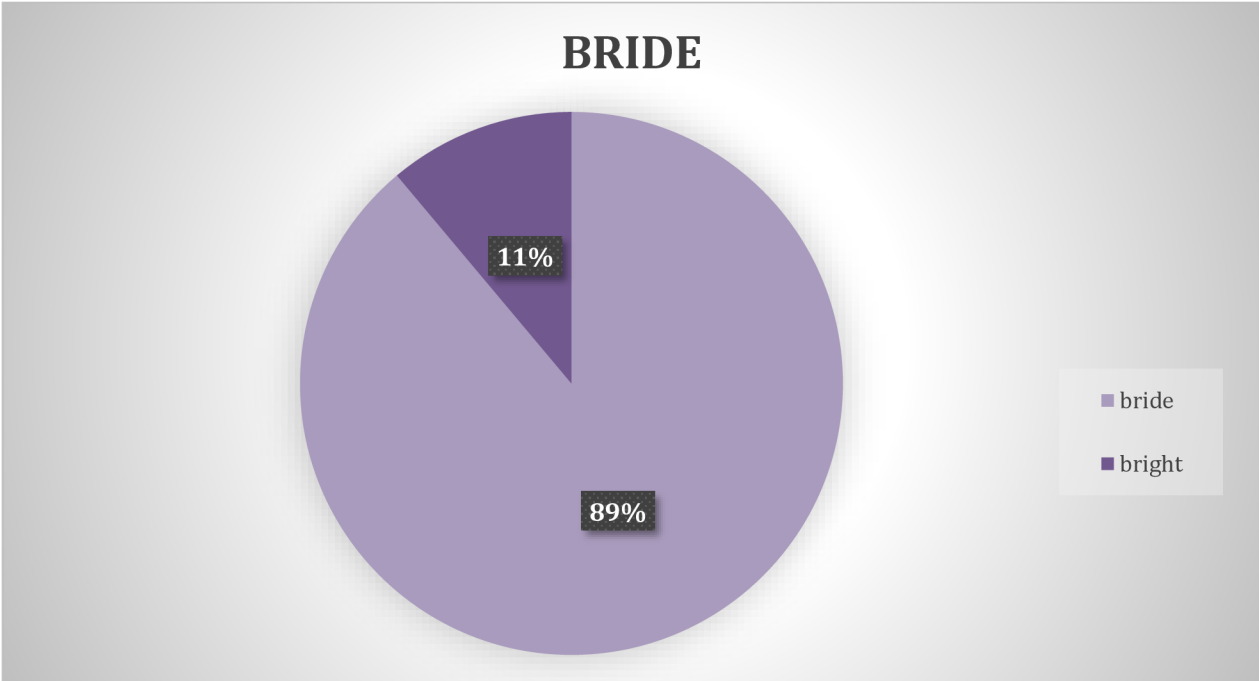
Graph 14: heart x hard



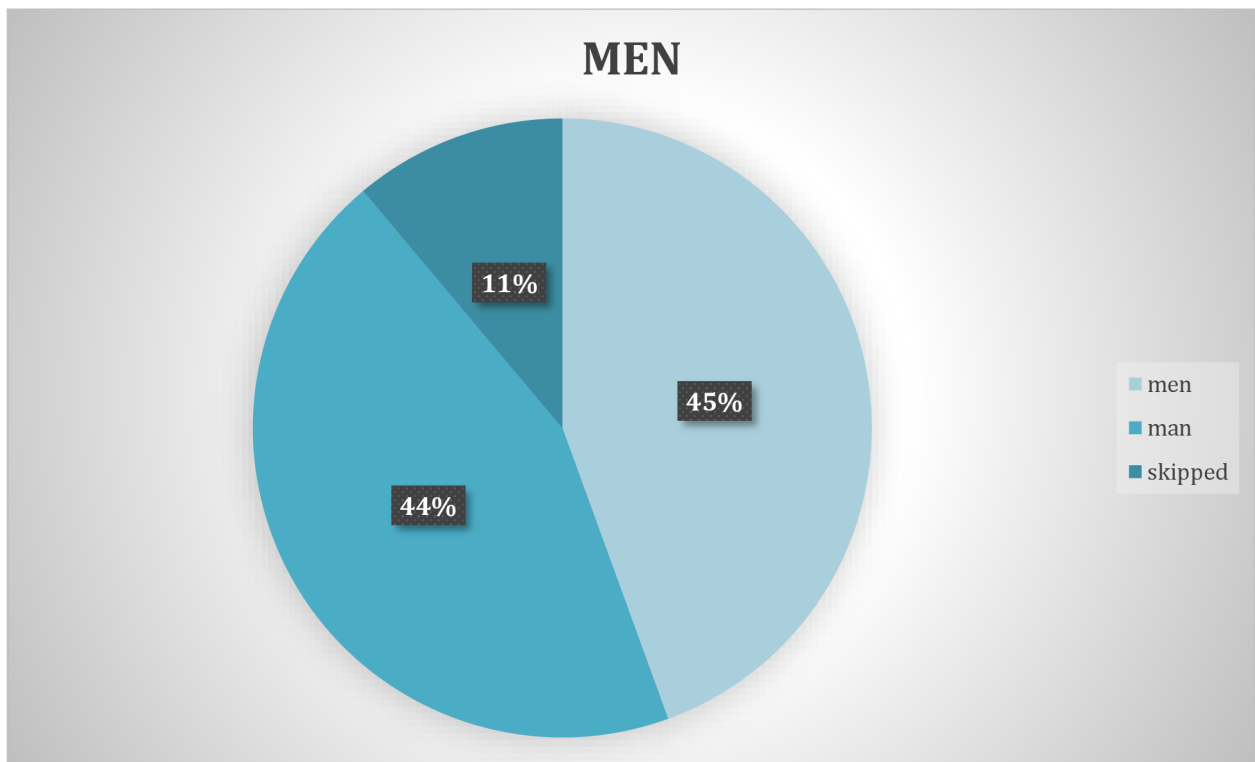
Graph 15: thin x fin



Graph 16: *thirst x first*



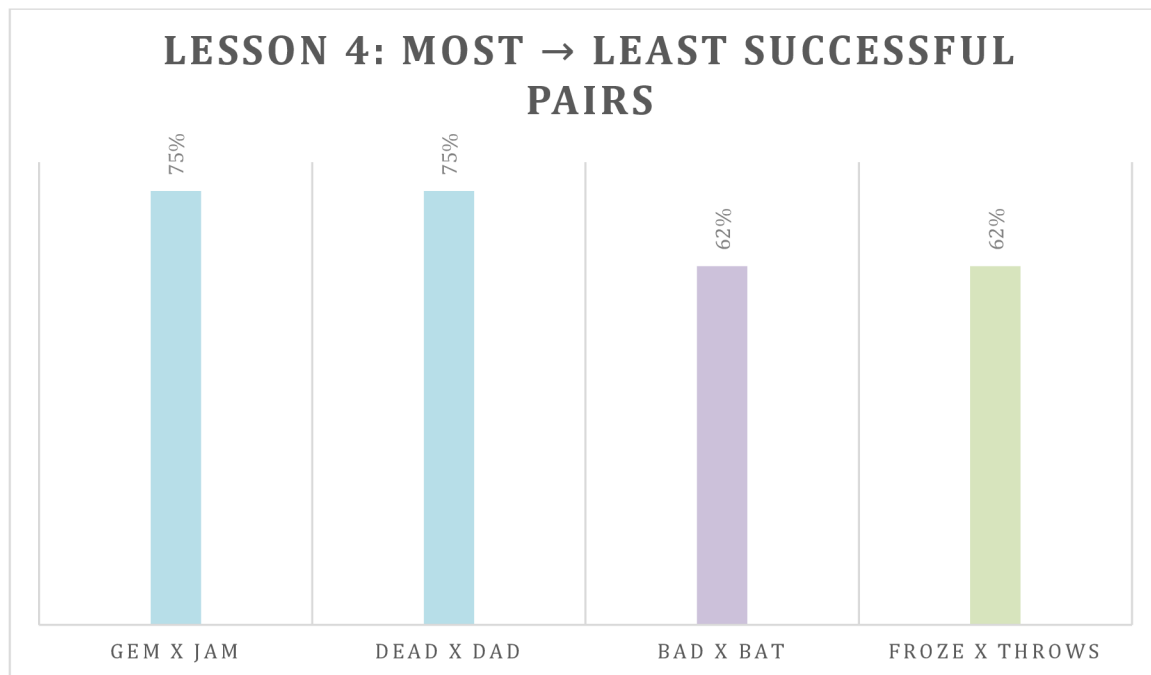
Graph 17: *bride x bright*



Graph 18: men x man

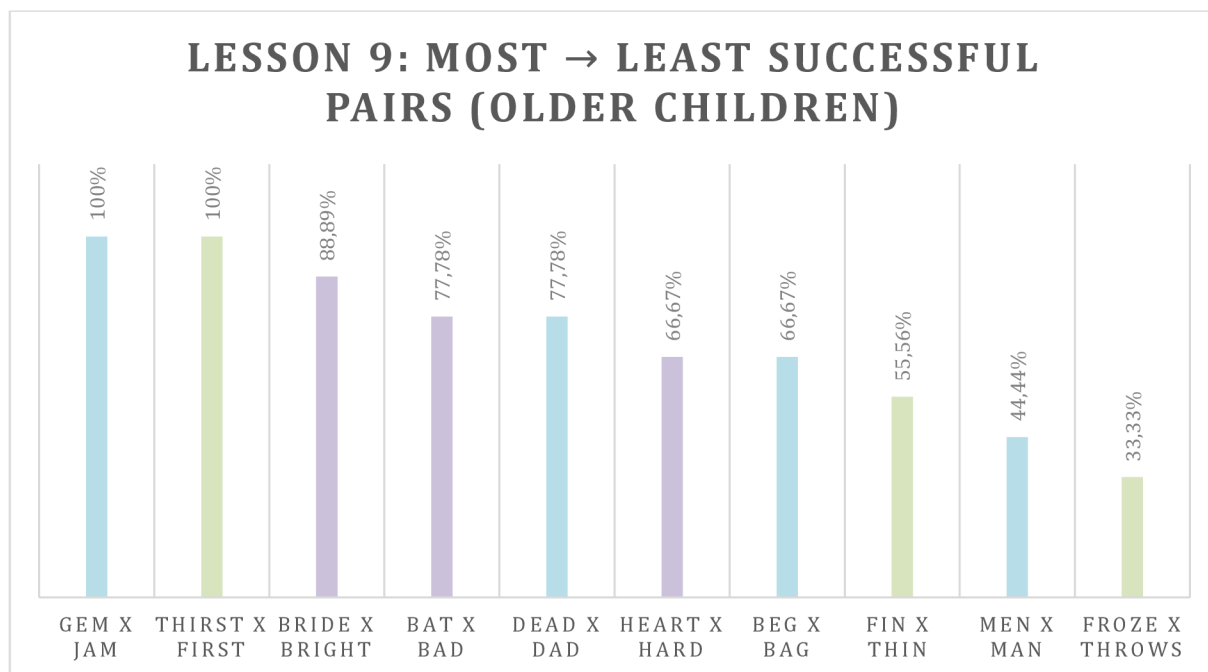
From graphs 9–18, it is evident that the sounds /f/ and /θ/ in words thirst and first and the sounds /e/ and /æ/ in words gem and jam were facile. Both were introduced in the third lesson and practised every class since. Still, the sounds /f/ and /θ/ were problematic overall, and their arithmetic mean of success was 63,3%. The most confusing pair was froze and throws, even though it was the first minimal pair children learnt. Nevertheless, problems with this pair were expected because many learners could not hear the difference.

On the other hand, the sounds /d/ and /t/ had an average success of 78%, which is relatively high. The most manageable pair was bride x bright, which was introduced only two lessons before the test, and learners did not have any trouble distinguishing this from the beginning. The sounds /e/ and /æ/ are somewhere in between and were, on average, 72,5% successful. The arithmetic mean of success in this test was **71,26%**.



Graph 19: most → least successful pairs (lesson 4)

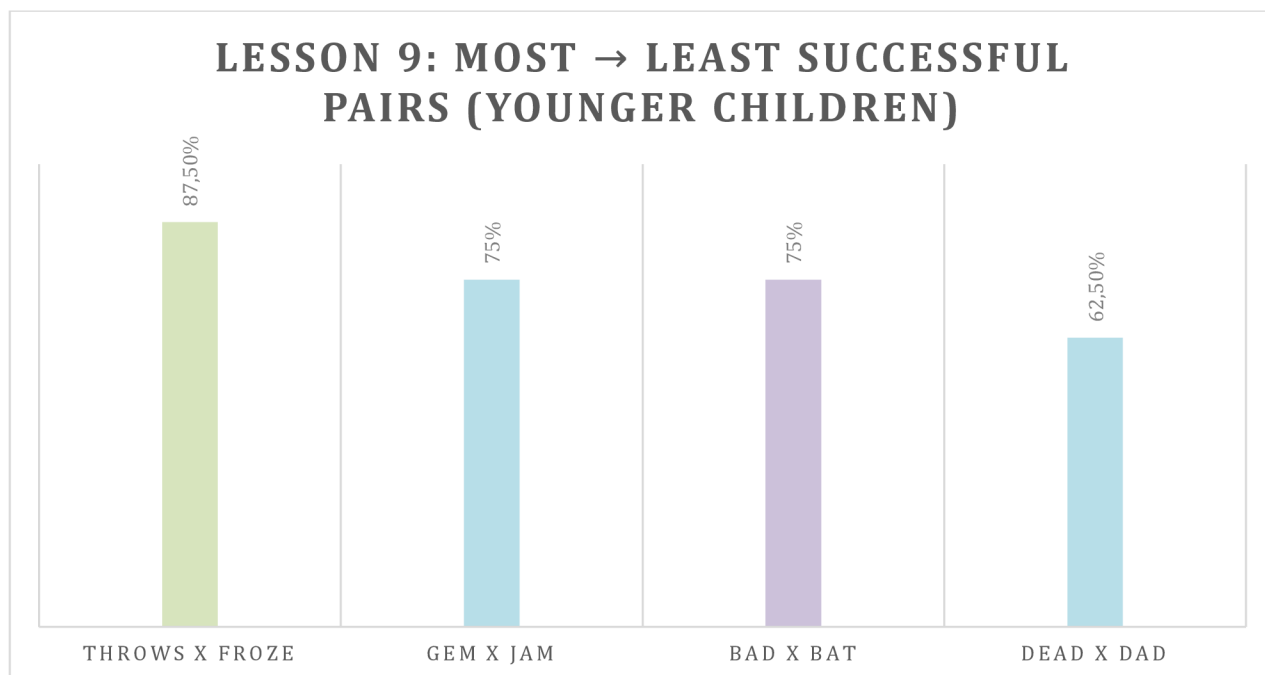
Graph 19 expresses the summary of success in the test from lesson four. The accomplishment is visible in percentages. The sounds /e/ and /æ/ were most successful. Probably because children liked the pictures and wanted to practise these much more often. The biggest problem was with the sounds /f/ and /θ/ and /t/ and /d/. Therefore, I decided to practice the less successful pairs more. Only one child had three mistakes because he was not paying attention. Only two children had two mistakes, and the other children had zero to one mistake.



Graph 20: most → least successful pairs (test with older children)

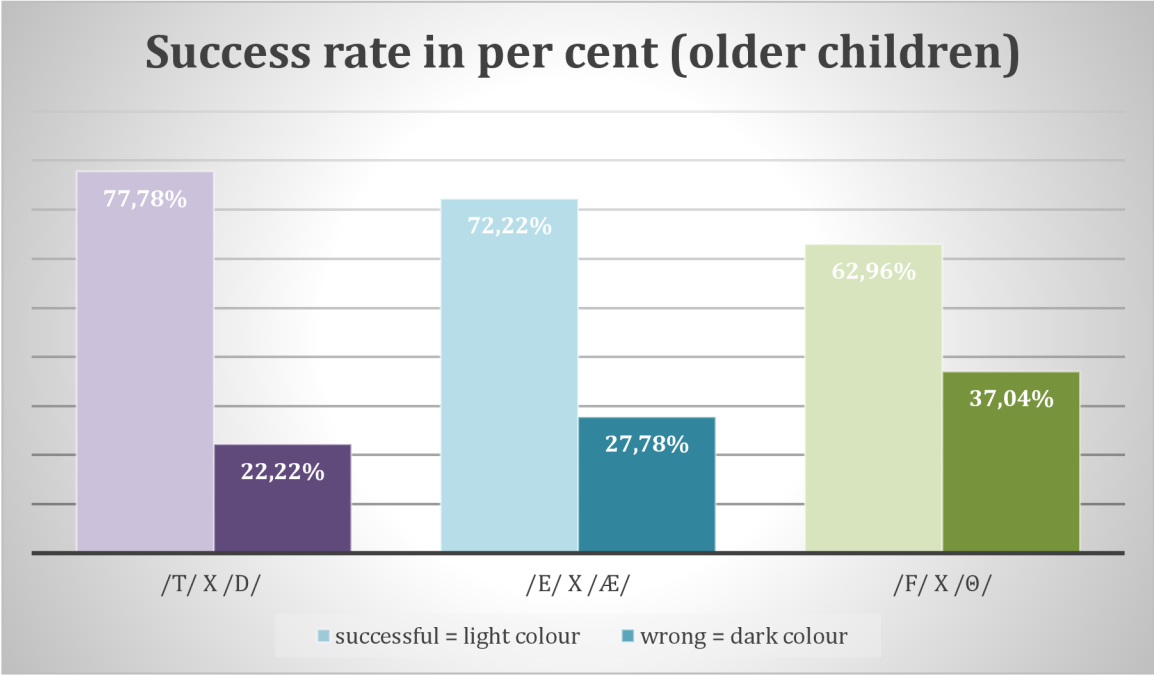
Graphs 20 and 21 represent the summary of success in the final examinations from lesson nine. It shows which pairs were most successful and how many learners got them right. When something was skipped, it was considered a wrong result, as well as when something was failed.

Chart 20 reveals that with two sets, there was no problem. The last three sets were problematic. The sounds /e/ and /æ/ were somewhere in between – the pair gem x jam was successful, the pair men x man not so much. As mentioned above, the pair men x man was problematic in the lessons too, and it seems that it would need more practice and more time to listen. Even though compared to the classes, four children heard the difference in the test. In the words gem x jam, the difference was more apparent to learners. The sounds /f/ and /θ/ were tricky for young learners. Nevertheless, they included ten mistakes as well as the sounds /e/ and /æ/. The sounds /t/ and /d/ had only six errors and are therefore considered the most successful ones. For the overall per cent success rate of particular minimal pairs, see Graph 21.

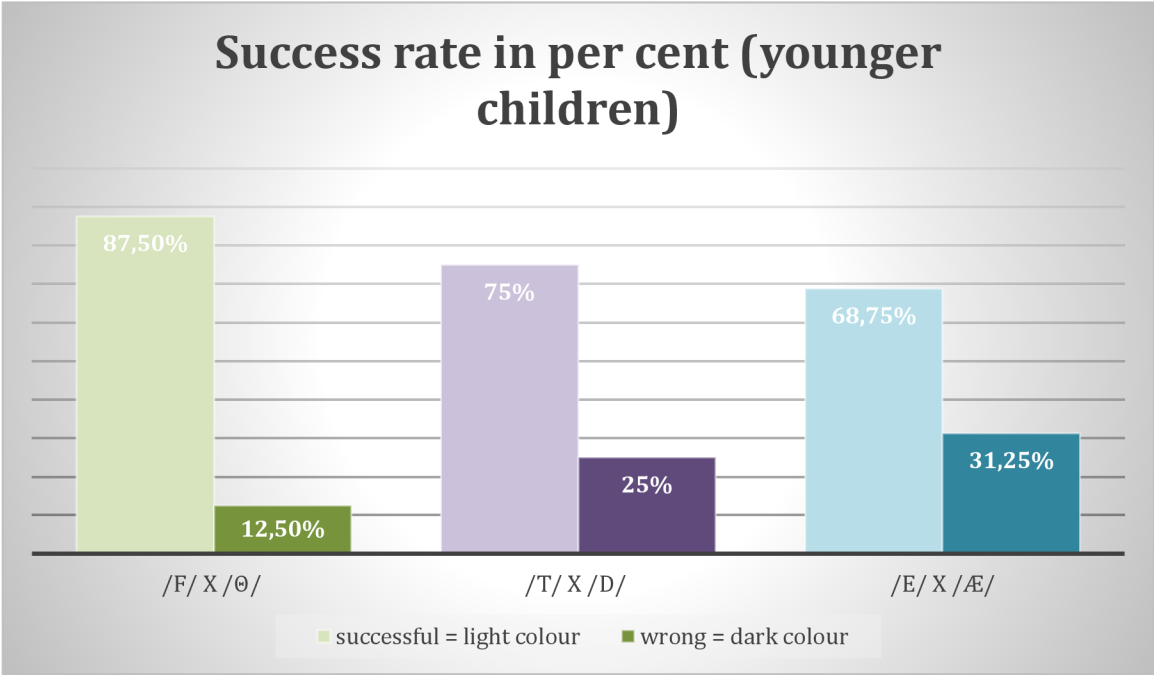


Graph 21: most → least successful pairs (with younger children)

Chart 21 reveals that younger children heard the difference better than older children by the pair /f/ and /θ/. I believe the older children would also have better results with more time. As with the older children, the pair gem x jam was not a problem; there were only two errors as well as with the pair bad x bat – the results were similar. The least successful set was dead x dad, where two mistakes were made again, and one child skipped it; this was less successful than the results of older children. Also, only two children took this test twice (the first time in the fourth lesson). Pepa had three mistakes in the first test and no mistakes in this one, which is a great success. Emička had in the first test only one error in the pair dead x dad; this mistake she repeated in this test too and added bad x bat. These were both from lesson 2, where she was absent. For the overall per cent success rate of particular minimal pairs, see Graph 22.



Graph 22: Success rate in per cent (test 9: older children)



Graph 23: Success rate in per cent (test 9: younger children)

Graphs 22 and 23 express the success percentages for each group of minimal pairs. Graph 21 indicates the data from the test in lesson nine done with the older children. The results reveal that the most successful and manageable sounds were /e/ and /æ/, with the arithmetic mean of success of 77,78%. The sounds /e/ and /æ/ were in between, with the arithmetic mean of success

of 72,22%. The least successful sounds by older children were /f/ and /θ/, with the arithmetic mean of success of 62,96%, caused mainly by the pair froze x throws.

Graph 22 indicates the data from the test done with the younger children in lesson nine. The results show that the most manageable and successful sounds were /f/ and /θ/, with the arithmetic mean of success of 87,5%. That reveals that the younger children are more sensitive and perceptive to sound distinguishing in the second language. The second most successful sounds were /t/ and /d/, with an arithmetic mean of 75%. Finally, the minor success sounds by younger children were /e/ and /æ/, with the arithmetic mean of only 68.75%.

13. Conclusion

This thesis aimed to show that it is possible to distinguish between very similar sounds or phonemes at an early age. This thesis was focused on minimal pairs and their discrimination. The theoretical part works with various theories and approaches to teaching young children a foreign language. In the theoretical part are also pointed out language learning strategies. I worked with the theory of the silent period and mainly with the direct learning strategies (memory, cognitive, and compensation). From the silent period, I used the idea of the pre-production period, when a learner perceives a language and does not speak or actively use the language. The learners' goal was to listen to me and the recordings, not to talk or actively use the language. Also, according to learning strategies, I tried to use pictures and the total physical response method so that the learners could connect the word to the movement or the image and remember it better. Then, critical listening (as a metacognitive learning strategy) was used to contrast two sounds.

I could not control the number of children in my class; many missed some lessons due to the pandemic. According to Mertin and Gillnerová (chapter 4.3), the ideal number of children

in class is around six. However, because of the kindergarten change, I had to teach all the present children, which was difficult because they got easily interrupted by each other.

With the young learners in kindergarten, who were the age of four and five years old, I went through 18 minimal pairs, six pairs with the sounds /f/ and /θ/, six pairs with the sounds /e/ and /æ/, and six pairs with the sounds /d/ and /t/. All young learners could distinguish some phonemes, mostly more than one-half. Few learners did very well and could distinguish all the sounds from one another. The overall success in determining minimal pairs in the last test by young and older learners is 74,04% (arithmetic mean). Thus it can be concluded that the tested children were able to distinguish the given phonemes.

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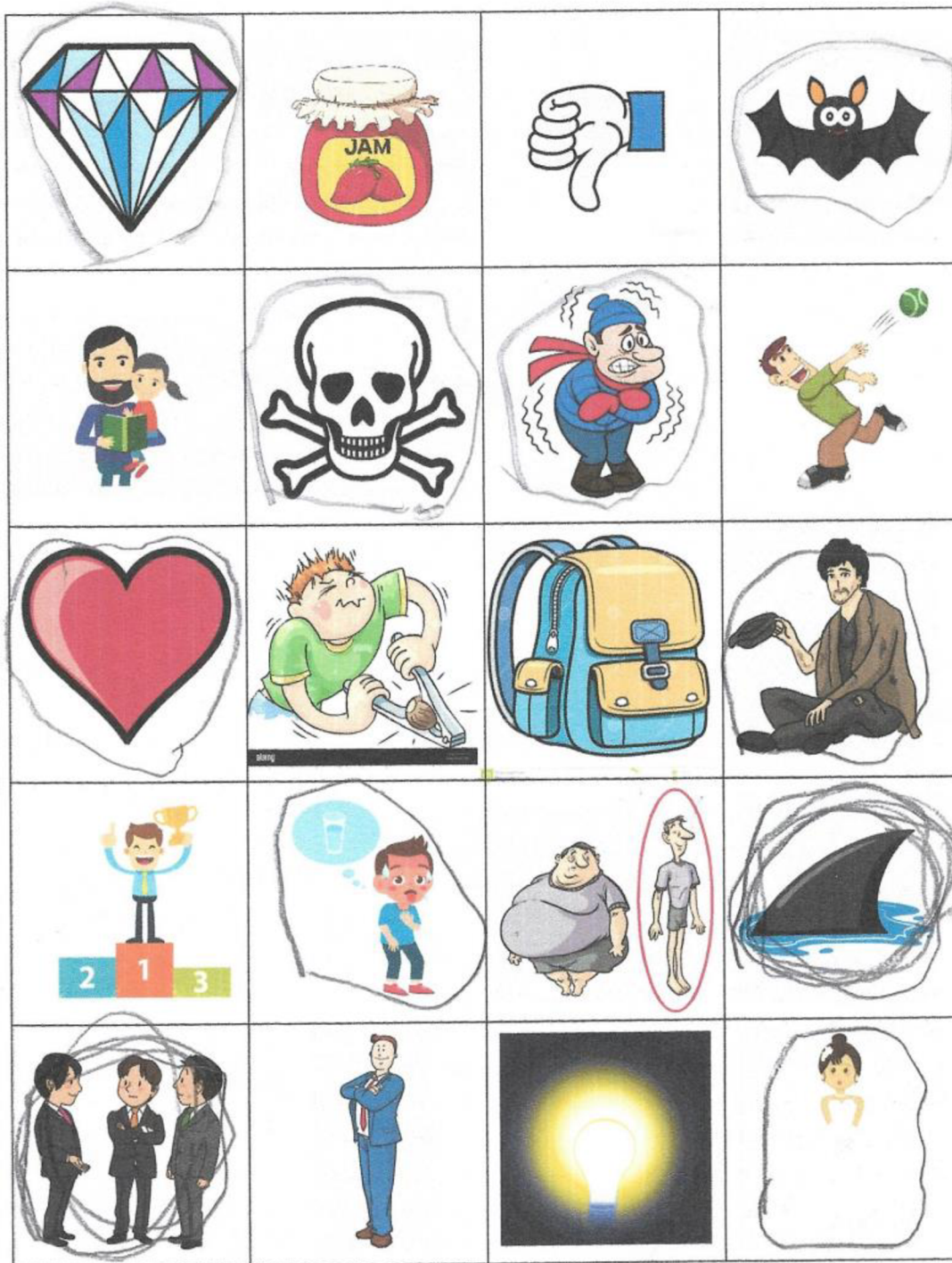
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16. Appendices



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Figure 9: Sample Test from Lesson 9 (older children)

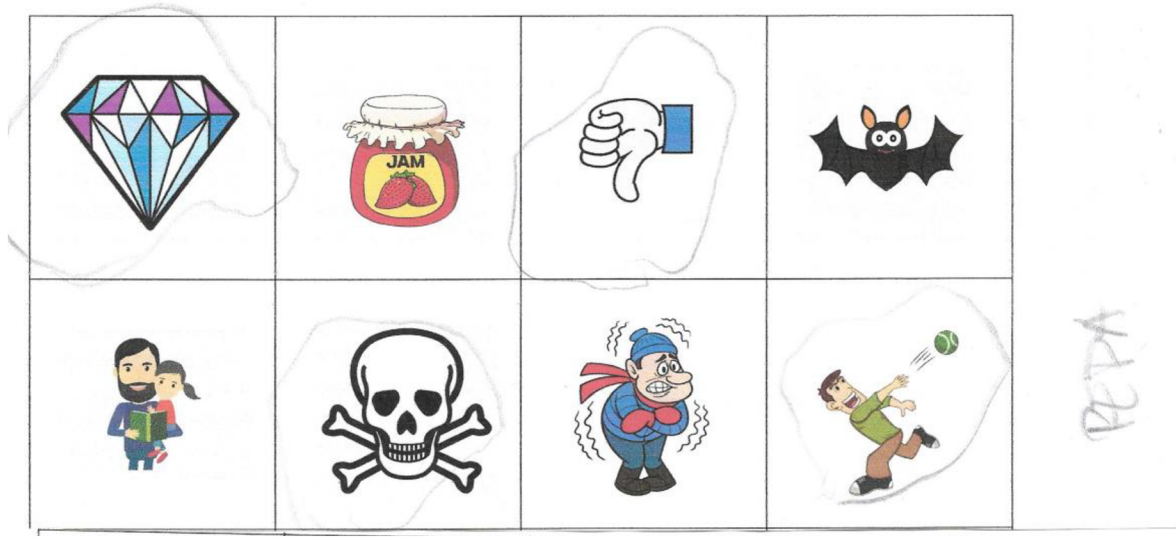


Figure 10: Sample Test from Lesson 9 (younger children)