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Common L2 Pronunciation Errors
- A degree paper about Swedish L2 students learning English

Vanligt förekommande uttalsvårigheter för svenska ungdomar som lär sig engelska som andra språk

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Preface

Felix Krausz and Sofi Centerman wrote the following dissertation collaboratively. However, primarily one author influenced some sections. The sections more influenced by Felix were: pronunciation, methodology, results and analysis & discussion. The sections more influenced by Sofi were: introduction, syllabus goals, previous research and conclusion. We would, however, like to emphasize that this dissertation was a joint effort where one writer did not contribute more or less than the other.

Abstract

The present study focuses on students at two Swedish secondary schools and the pronunciation errors that are the most prominent during reception and production of specific speech sounds. The primary focus of this degree paper is to establish whether or not certain speech sounds such as e.g. the /ʃ/ sound, which do not occur in the Swedish language in initial position are difficult or not and whether or not they act as an obstacle for Swedish students learning English as their L2.

The aim was to establish which specific pronunciation errors that occurred in the L2 language classroom. Since this was the aim, primarily quantitative studies were carried out at two secondary schools in southern Sweden. The results from the four different tests show that the tested Swedish L2 students seem to have a greater difficulty with speech sounds placed in initial position than in final position of a specific word. According to this degree paper this is due to the fact that the Swedish language does not have an equivalent to the difficult speech sound in initial position, therefore making it difficult and often resulting in negative transfer from the L1. Furthermore, the English sounds that posed the biggest problems for the students were ones that sometimes can be found in the Swedish language. These sounds were very similar to native sounds creating a challenge for the Swedish students when perceiving and producing the English sounds. However, it was shown that when these sounds were presented in a context, they proved to be less challenging for the students to receive and produce.
Moreover, although the syllabus only mentions that communication should be functional, there still needs to be an element of focus on form in order to become a proficient language user.

**Key words:** focus on form, negative transfer, pronunciation errors, speech sounds
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1 Introduction

English is accessible to Swedish students through television, the Internet and through various other forms of media in society. Because of this constant exposure, children are to some extent aware of how the language should sound. Exposure to and awareness of variations such as dialects and accents are reoccurring goals in the Swedish syllabus for English, meaning that these skills should be worked with on a regular basis in the classroom. Despite this exposure, various language mistakes are usually apparent during the early stages of language acquisition if one enters an L2 language classroom in Sweden.

Difficulties in pronunciation seem to be a problem for many teachers of a foreign language. Students can have different abilities when entering the L2 classroom that depend on aspects such as language background, exposure to the target language, age and even interest in the language. This makes it hard for a teacher to know how to approach individual learners in their individual pronunciation development.

If one examines the Swedish syllabus for English, one could draw the conclusion that pronunciation does not seem to be considered as one of the most important skills to master in order to attain a satisfactory English language competence. The role of pronunciation in the Swedish L2 syllabus is discussed further in section 2. However, since English is now a global language and a primary form of communication within many different fields of work, it is crucial that awareness is raised concerning students’ pronunciation abilities in order to be communicative.

There seems to be a clear trend towards function over form within the Swedish syllabus, which supports a communicative approach to learning where language form/structure is not as important anymore. However, with pronunciation, form may need to play a bigger role in the syllabus in order for students to be successful in their communication, and it cannot be neglected because of the development of English as a lingua franca. For example, in the future, one might predict that nuances of English (for example English spoken by a Swedish person who has poor pronunciation skills) will not be as accepted and may even be considered to be uncommunicative (e.g., saying sheep instead of cheap) for a global English speaker. On the whole, and to move
forward with the goal of preparing L2 students for an ever-growing English speaking world, this means that language awareness needs to play a role in the development of language.

“Language awareness refers to the development in learners of an advanced consciousness of and sensitivity to the forms and functions of language” (Carter 2003). Furthermore, Nunan (2004, 37) suggests, “Learners should be taught in ways that make clear the relationships between linguistic form, communicative function and semantic meaning”. In other words, students need clarity between form and function in order to develop their language and be aware of the necessity for both. Nunan goes on to say, “the challenge for pedagogy is to ‘reintegrate’ formal and functional aspects of language, and that what is needed is a pedagogy that makes explicit to learners the systematic relationships between form, function and meaning” (37). If language awareness and the relationship between particularly form and function is clear to L2 students, their language development should, according to us, benefit.

Through various experiences at local Swedish schools as well as discussions held with English language teachers, we noticed that Swedish students in the L2 classroom have a tendency to mispronounce certain English speech sounds that do not have a solid Swedish equivalent. There are of course many other sounds that can be problematic to perceive and produce for Swedish students learning English, for example the English and Swedish /t/ sounds. However, a few specific English speech sounds were chosen for this study since variations or errors in pronunciation of these sounds are easier to distinguish than with variations of the /t/ sound, for example. As for the /t/ sound in English, this sound is similar to the Swedish sound although it is not identical. For example, in English the /t/ sound in the word “hat” is much softer than the Swedish /t/ sound in the same word. These different /t/ sounds are produced due to the slight change in positioning of the tongue in both languages, although both sounds are still voiceless plosives.

In contrast, a few English speech sounds are not very similar or identical to Swedish sounds, making performance analysis easier so as to distinguish whether or not a pronunciation error is occurring. English speech sounds such as /θ/ (i.e. thanks), /ð/ (i.e. this), /ʃ/ (i.e. church), and /dʒ/ (i.e. age) do not usually have Swedish equivalents but when they do, as with the /ʃ/ sound, then the sound can only be found in final position (i.e. the Swedish word “match”), but never both in initial and final as with
English (i.e. “chance” and “hatch”). The speech sound /dʒ/, on the other hand, does not have a clear equivalent in the Swedish language although some words begin with “dj” (djungel, djur, djup etc.) and are pronounced with a silent /d/ and a much softer /ʃ/ than in English. Additionally, as with the examples above, the speech sounds /θ/ and /ð/ are not native Swedish speech sounds either and may also pose a problem. Some Swedish learners of English may be able to pronounce the mentioned speech sounds correctly due to a wide exposure to the English language or perhaps due to English words becoming more and more noticeable in the Swedish language. As these selected English speech sounds cannot always be found in initial and in final position in Swedish words, we can speculate that they will create a challenge for Swedish L1 students to mimic or differentiate and have therefore chosen them for our study.

Transfer unfortunately does not help the Swedish learner of English in instances where they are presented with sounds such as /dʒ/, /θ/ and /ð/ since there are no direct equivalent speech sounds in the Swedish language. This, along with the minimal focus on pronunciation in the Swedish syllabus, is one of the many reasons why this particular research field was chosen.

The Common European Framework of Reference for Languages (2001) states that the skills needed for pronunciation involves perception and production. With the help of pronunciation exercises that test students’ productive skills, carried out at local Swedish schools, it will therefore be determined whether or not students possess the ability to perceive the differences in speech sounds and whether or not they are able to produce them correctly and communicatively on their own.

Through an analysis of the claims made in previous research concerning phonetic acquisition, in relation to the hypothesis of this paper, a deeper understanding of how L2 learners obtain knowledge of phonology will hopefully be gained. Furthermore, through analysis of the tests conducted by us, patterns of speech sound pronunciation difficulties will be pinpointed that will form the basis of the study. It seems as though these problems arise due to negative transfer, when native Swedish students attempt to master the pronunciation of the L2 English language.

Due to the discussion concerning the importance of form when it comes to pronunciation, our study also needs to concentrate on form over function. This means that quantitative data will need to be collected because of the nature of the topic. As specific speech sounds will be tested within the English L2 classroom, a quantitative
method is the most appropriate angle in order to analyze the data to achieve as detailed results as possible.

1:2 Research questions

- When working with a few selected English speech sounds, do Swedish students learning English as an L2 have any difficulties in terms of pronunciation?
- To what extent are the students able to perceive and produce a few selected English speech sounds?
- To what extent are the results of speech outcomes through pronunciation exercises influenced when words containing selected English speech sounds are put in a context?
2 The Swedish Syllabus

As mentioned, when looking at the Swedish syllabus for English from the Swedish National Agency for Education, it is quite apparent that not much attention is paid to pronunciation. This implies that the Swedish school system does not place great emphasis on the importance of clear pronunciation for students in order to achieve a good level of competence in the English language. Perhaps this is due to the fact that function over form is very often the focus of the Swedish school system and that the goal is communication rather than awareness of the form and buildup of the language. Also, the aim seems to be that the formal knowledge should develop as a consequence of using the language meaningfully.

At the secondary level for grade 9, the syllabus for English barely mentions pronunciation:

Structure and nature of the subject:

The different competencies involved in all-round communicative skills have their counterparts in the structure of the subject. Amongst these is the ability to master a language's form, i.e. its vocabulary, phraseology, pronunciation, spelling and grammar.

(www.skolverket.se, January 2011)

In the section called assessment, pronunciation is mentioned only twice and does not appear to be of great importance:

Assessment: (...) Other aspects of the assessment are to what extent the student can follow at a normal speaking pace while listening and understand the most important regional variants of English. This understanding includes the student’s ability to register differences and nuances in terms of language sounds, stress and intonation. (...) The assessment of spoken English is further targeted among other things by whether or not the student articulates clearly enough so that what is being said is easy to understand and that stress and intonation develops towards a pattern native to the language field.
Similar to grade 9, at the upper secondary level there are three levels of English and here pronunciation is only mentioned at the first two levels, once when speaking of the goals of English A (see previous quote “Structure and nature of the subject”) and once concerning the grading criteria of English B:

The student expresses him/herself orally with good pronunciation and clear intonation.

Up until the 1960s, grammatical rules generally formed the basis of language learning and teaching. Per Malmberg (2001, 16) notes that languages were for a long time purely subjects focused on competence where a connection to a living content often was missing. Historically, a primary focus on the formal aspect of language has dominated language teaching for centuries. The idea was for learners to understand and acquire the language structures and the spotlight was on patterns and forms rather than meaning and function of a language when it came to teaching and learning (Nunan 1999, 9). Nunan describes that later, during the 1970s, meaning and expression of language became the center of attention and rules and structures faded into the background, which in turn had an impact on language teaching as well as syllabuses and textbook writing all over the world. One of the breakthroughs of a communicative ideal in Sweden came with the introduction of a new curriculum, Lgy 70, which states that “the role of grammar in teaching is functional: the grammatical knowledge should serve under practical language competence and shall not be assigned any self-worth” (In Malmberg 2001, 17). Function took over the role of form in language learning, which is still obvious to date. Second language teaching was affected by this trend as well and in Sweden, communicative language teaching (CLT) became, and still is, a common approach to teaching with an emphasis on interaction and communicative learning.

It can be argued that within the field of English language learning, a focus on form should go hand in hand with a focus on function. In other words, without the focus on form when teaching pronunciation for example, a functional aspect of the language can be lost, or in this case, act as an obstacle for successful communication.
Consequently, in order for current learners of the English language to be proficient enough for the future and to be as successful in their communication as possible, it can be argued that pronunciation needs to be actively worked with on a regular basis.

With the seeming minimal attention being paid to pronunciation within the syllabus, the focus of Swedish schools lies in strong communication where function precedes form. As discussed in the introduction, the Common European Framework of Reference for Languages (2001) clearly states that:

Phonological competence involves a knowledge of, and skill in the perception and production of: the sound-units (phonemes) of the language and their realization in particular contexts (allophones); the phonetic features which distinguish phonemes (...); the phonetic composition of words (...); sentence phonetics (prosody)(...); phonetic reduction.

(CEFR 2001, 116-117)

This quote implies that perception and production are the main goals of pronunciation learning and these factors are exactly what will be tested in this study. Furthermore, the CEFR (2001, 153) states that there are ways in which learners can achieve good pronunciation. Learners should be expected to develop their ability to pronounce language through varied practice such as for example:

(... exposure to authentic spoken utterances; (...) chorused imitation of (...) the teacher; (...) audio-recorded native speakers; (...) video-recorded native speakers; (...) individualised language laboratory work; (...) reading aloud phonetically weighted textual material; (...) ear-training and phonetic drilling; (...) learning orthoepic conventions (i.e. how to pronounce written forms).

Both the Swedish syllabuses for English and the CEFR follow an action-oriented approach (CEFR 2001, 9-10). This means that the overall aim is the same. The development of an all-round communicative competence by focusing on what students are able to express is the main goal as well as communication leading to an increased ability to express oneself correctly and clearly. Moreover, an all-round communicative ability will develop as a result of meaningful language use where the focus lies on function.
3 Pronunciation

Pronunciation includes features such as stress, rhythm and intonation (aspects of prosody). These features need to be taken into account when it comes to looking at the learning outcome. However, this degree paper will not focus on stress and intonation, as the aim is to pinpoint certain English speech sounds/phonemes that seem to pose a problem for Swedish students learning English.

So why teach pronunciation? The goal in the L2 classroom has to be to help students in their English language development so that they will be prepared and comfortable in an English-speaking environment. For students to gain a level of language proficiency where they are communicative and can participate in conversations as well as be able to take in information in the L2 language, students need to be aware of pronunciation. The ultimate goal therefore should, according to us, be native-like pronunciation, although this goal is most likely impossible to reach and is not in effect a realistic result.

The native-like ideal, when discussing this topic in terms of L2 learning, usually means standard varieties of American or British. This ideal however is not mentioned in the Swedish syllabus for English. Due to standard varieties of American and British pronunciation previously having been considered the ideal in Swedish L2 classrooms, this paper will use these two varieties when it comes to our tests. However, different varieties of English may have different ways of pronouncing the phonemes tested in this paper. This means that if a teacher is faced with assessing students with backgrounds from South Africa, Ghana, India, Singapore or Australia etcetera, it would of course be wrong to assess their pronunciation as errors should their pronunciation differ from the American or British pronunciation of the speech sounds.

The Swedish syllabus does not state that native-like pronunciation should be a goal and only mentions a need for pronunciation to be functional. Kenneth Hyltenstam and Niklas Abrahamson, who are well-known researchers within applied linguistics, question in their paper, *Maturational Constraints in Second Language Acquisition* (Doughty & Long 2003, 541), whether or not a native-like pronunciation can be achieved at all. They suggest that teachers should grade and discuss in terms of near-
native and non-native proficiency. Furthermore they suggest that in terms of the input that a young learner gets in order to become as native or functional in pronunciation as possible, the nature of the input needs to be examined in terms of amount and quality

(545).

However, cultural issues may also act as an obstacle for some learners in relation to the goal of native-like pronunciation. Jeremy Harmer summarizes in his book that older learners of a second language are not ashamed of their L1 being apparent in their second language since language is a part of their culture (Harmer 2007, 175).

David Nunan suggests that the best time for students to learn a language in order to become as native-like in their pronunciation as possible is before the onset of puberty (1999, 105). This is because the mother tongue has less influence on pronunciation at this stage. When it comes to vocabulary and grammar, a student’s L1 is less apparent than in pronunciation. Nunan describes The Critical Period, first introduced by Noam Chomsky and was seen as important when it came to second language learning:

The critical period is a biologically determined period of life when language can be acquired more easily and beyond which time language is increasingly difficult to acquire. The critical period hypothesis claims that there is such a biological timetable.

(Brown as quoted in Nunan 1999, 105)

Although David Nunan claims that the critical period exists (1999, 105), several researchers question whether or not the critical period takes places much earlier or not at all. For example, in The Study of Second Language Acquisition, Rod Ellis summarizes that the differences in opinions and results from studies being made concerning the critical period hypothesis depends on the focus and focus groups in terms of the actual results (Ellis 1994, 484). He continues to explain that since studies concerning the critical period hypothesis are so different in form and focus, conclusions and parallels between the studies are not possible (Ellis 1994, 484). However Ellis summarizes the following results as reoccurring in almost every study concerning the critical period:

Only child learners are capable of acquiring a native accent in informal learning contexts. (...) Children will only acquire a native accent if they receive massive exposure to the L2. However, some children who receive this exposure still do not achieve a native-
like accent, possibly because they strive to maintain active use of their L1 (494).

Since the critical period hypothesis suggests that language and pronunciation are easily learned at an earlier stage in life, the responsibilities of teachers increase as they need to ensure that they are able to provide students with as much knowledge as they need at this important early stage of their development. This suggests that schools should incorporate more second language learning earlier than what is the case now in order to achieve as clear pronunciation as possible from students. A problem with the exposure, which the students get early on in their education in Sweden, is that the pronunciation input often comes from teachers who are almost never native speakers of English. This implies that teachers may not have completely correct pronunciation and might also be using more Swedish than English in the classroom.

The issue of age in relation to language learning is something that still needs further research. Jeremy Harmer summarizes his idea of the problems concerning the critical period by stating that: “People of different ages have different needs, competences and cognitive skills (…)” (2007, 81). This seems to be accurate because the way in which children, for example, learn a second language through play, does not necessarily apply to adults who learn better through abstract thinking. Some researchers for example Rod Ellis, claim that although younger learners seem to have a better chance of acquiring a native-like pronunciation, this does not mean that older learners are not as good at learning a foreign language as young learners. Harmer summarizes in his book of theories on teaching that younger students have an advantage when it comes to pronunciation abilities but also suggests that this idea may be misleading since this could depend on the teacher’s ability to pronounce sounds correctly (81). The advantage that younger students seem to have, is that they have an ability to replicate the teacher’s pronunciation extremely well which in turn puts non-native speaking teachers at a disadvantage and could therefore challenge the theories presented in Harmer.

How students learn a foreign language is important to know for teachers in any school system since their personal learning process has an affect on their learning outcome. Learning a second language is much like learning a first language, according to the summarized theories in Harmer. In *The practice of English Language Teaching*, Harmer summarizes that the L2 learning process should therefore try to be as similar to the way the students learned their L1. However, researchers claim that there actually
are, and should be, differences in the way in which children acquire their L2 in comparison to their L1.

Two of the researchers who support this claim are Dulay and Burt who in their book *Second language teaching and learning* explain that usually when children learn their L2 they already have cognitive skills concerning the language and this means there are other prerequisites compared to when the child learned its L1 (Nunan 1999, 39). The conditions may be different compared to when students learn their L1, but the pronunciation errors they make often reflect back onto their L1.

Errors are natural occurrences along the way when learning a new language. This is something that this degree paper acknowledges and it also seeks to explore what specific errors that are made and how these could be explained by theory.
4 Previous research

During the 1950s, behaviorism was the leading theory on how a foreign language was learnt. Behaviorism supported the idea of learners being influenced by their environments through imitation, repetition and positive feedback. When the learner had acquired new language habits the process had been successful, while errors made by the learner during language production as a direct result of negative transfer/interference from the L1 was viewed as unsuccessful learning. (Ellis 1990, 3)

Later on, in the 1960s and early 1970s, this view was challenged by researchers of applied linguistics such as Newmark (1966), Corder (1967) and Selinker (1972), by giving less importance to the role of the environment and instead stressing the role of the learner him/herself (Ellis 1990).

4.1 Contrastive analysis, error analysis, and interlanguage

Behaviorist thinking introduced contrastive analysis, which was used significantly in the field of second language acquisition. The Contrastive Analysis Hypothesis (CAH) claimed that where two languages are similar, positive transfer will occur; where they are different, negative transfer, or interference, will result (Larsen-Freeman & Long 1991, 53). This claim can, amongst other things, be applied to phonological acquisition and

(…) holds that second language acquisition is filtered through the learner’s first language, with the native language facilitating acquisition in those cases where the target structures are similar, and “interfering” with acquisition in cases where the target structures are dissimilar or nonexistent.

(Celce-Murcia, Brinton & Goodwin 1996, 19-20)
In relation to our study, this claim implies that aspects of Swedish (in this case the L1) phonology that are similar or identical to English (in this case the L2) phonology should result in positive transfer. Pronunciation, however, could be an exception to this rule as similar speech sounds may lead the learner to rely solely on their familiar Swedish speech sound which would be incorrect, therefore hindering them when trying to acquire the new correct English speech sound. As with the Swedish and English /t/ sound, for example, learners may find it difficult to distinguish between these similar, yet non identical, sounds.

Furthermore, the claim implies that learners’ errors will only be a result of negative transfer. Nevertheless, it is quite obvious that not all errors made by learners can be connected to negative transfer from the L1. Since this claim cannot fully explain the difficulties that occur, it will only aid this degree paper in describing when errors might occur and also in instances when problems do not occur in relation to transfer. Due to the weakness in this claim, however, Stephen Pit Corder, amongst others, introduced the study of error analysis during the 1960s (Lightbown & Spada 2006, 78).

Errors are a natural part of learning a language and can work as an insight into the tools and the process used to learn a language. One of the most important findings of error analysis is that most errors occur by learners drawing incorrect conclusions about the rules of the L2, which can even be related to phonological errors as researched in this study (Corder 1967). However, language learning is developmental by nature and happens in stages largely as an implicit process implying that conclusions are not possible. Most importantly, errors analyzed through contrastive analysis as well as error analysis can be assessed in relation to what degree they affect communication.

As with most studies, error analysis also had a few glitches, in that it only focuses on the analysis of learner productive skills (speaking and writing) and not learner receptive skills (listening and reading), although this method is still used in many aspects of second language acquisition.

In the 1970s, Corder’s approach turned to the more extensive study of L2 learning called interlanguage. Larry Selinker (1972) gave interlanguage its name and claimed in a given situation, learners produce words or that are different from those native speakers would produce had they attempted to convey the same meaning. This comparison reveals a separate linguistic system, which proposes that every learner has “internalized a mental grammar, a natural system that can be described in terms of linguistic rules and principles” (Doughty & Long 2003, 19).
4.2 Transfer

These studies have a definite connection to transfer, where familiar speech sounds in the L1 are used to produce new speech sounds in the L2, as mentioned in section 2.2. Furthermore, this study intends to reflect on negative effects of transfer where there is no equivalent L1 speech sound for the L2 speech sound, therefore resulting in “negative transfer”.

Language transfer refers to the influence of learners’ first language knowledge in the second language. Also called “interference” or “cross-meaning”, the term “first language influence” is now preferred by many researchers (Lightbown & Spada 2006). Transfer can occur in any situation where a learner does not have a native-like grasp of a language, for example when a student is participating in a communicative task in the L2 classroom.

Transfer has for a long time been a central field of applied linguistics. Its importance in second language education has shifted continuously in that it was either considered to be the most important factor in language theories and approaches or not at all being the reason behind learner errors as these instead were caused by creative processes of language acquisition (Long & Richards, Odlin 1989). Today it can be argued that transfer is accepted as influencing language learning yet language learning is developmental by nature and hence influenced by many other factors of error making, for example difficulties with reading, spelling etcetera.

In language transfer, the effects can be both positive and negative. If a positive transferring process occurs, for example when a learner correctly applies L1 language knowledge to the target language, it is rarely noticed, as one does not always have insight into the thought processes used during transfer. Positive transfer therefore implies that the outcome of the transferring process is a “correct” communication; “correct” meaning that which is in line with what a native speaker would consider appropriate and acceptable (Ellis 2003). Negative transfer, in turn, implies that the learner has applied L1 language knowledge when using the target language. It could be suggested that, the further the distance between L1 and L2, the greater the risk for negative transfer. If this is true, there would be a small risk for negative transfer as Swedish and English are similar in many ways (Ellis 2003).
4.3 Relevance to this study

An overview of significant research and studies has now been presented and in relation to this study, this degree paper will evaluate the results and use the theories mentioned above to present and analyze the results. The theories on their own may have a few glitches and may not be accurate in today’s world, yet they will hopefully provide us with a more solid base for this degree paper.

In relation to previous research, it is interesting to look at the difficulties with the chosen English speech sounds tested in this study, since the research predicts that specific errors will occur. As these predictions exist, it will be interesting to discover whether or not they are applicable in our case and whether or not new findings will prove different from previous studies.

We believe that the potential conclusion of this degree paper is that the main reason why the errors occur is because of negative transfer where there are no equivalent Swedish speech sounds available. We also believe that when it comes to this study of pronunciation challenges, transfer has an effect although there are numerous other factors in terms of learners making errors, as discussed earlier. Our hypothesis relates to the expectation that second language learners will use the L1 speech sounds that are familiar to them and transfer them as much as possible into the L2.

If communicative ability is the goal, a student learning a foreign language needs to acquire strong pronunciation skills. Pronunciation therefore should be practiced continuously so as to prevent learners from coming to a standstill where their pronunciation runs the risk of not being susceptible to further improvement.

(…) since both empirical and anecdotal evidence indicates that there is a threshold level of pronunciation for nonnative speakers of English; if they fall below this threshold level, they will have oral communication problems no matter how excellent or extensive their control of English grammar and vocabulary might be.

(Celce-Murcia, Brinton & Goodwin 1996, 7)

As referred to in (Lightbown & Spada 2006), Wode (1978) and Zobl (1980) touched upon the idea of a threshold and observed that learners at some stage “reach a developmental point at which they encounter a ‘crucial similarity’ between their first
language and their interlanguage pattern, (and) they may have difficulty moving beyond that stage or they may generalize their first language pattern and end up making errors that speakers of other languages are less likely to make” (93).

In addition, another aspect of making errors in the L2 due to influences of the L1 is that of sensitivity to degrees of distance or difference between the L1 and target language. The study of Håkan Ringbom (1986) for example, revealed that ‘interference’ or transfer errors made in English of Swedish L1 students might occur due to the close relation between English and Swedish. The sharing of many language characteristics may lead learners to try to implement the language structures or words from the L1 into the L2 as a gamble. It is possible that the developmental stage where learners have difficulty moving past the point of crucial similarity acts as one of the reasons for errors found in this study. Equally, the results of the tests and the trends of pronunciation errors made in our study seem to be similar to those found in Ringbom’s study which showed that Swedish L1 learners take chances due to the similarities between L1 and L2.
In order to explore the problems presented in our introduction and research questions, a quantitative approach had to be taken. Although the subject itself is quite qualitative, i.e. the issues surrounding pronunciation for Swedish students learning English, data had to be collected in a quantitative manner. The goal of the study is to gain a deeper understanding of what specific speech sounds are challenging for L2 students and to determine to what extent context can influence students’ abilities to correctly perceive and produce these speech sounds. Specific words with selected English speech sounds were therefore utilized and formed the basis of four tests (appendices 1 to 6) to establish which English speech sounds were the most difficult for a “normal” Swedish student to perceive and produce and what factors that may influence the degree of difficulty.

5.1 Method of data collection

The description of a mixed methods approach is, according to Heigham & Croker (2009, 137), “Mixing quantitative and qualitative data at some stage of the research process within a single study in order to understand a research problem more completely”. As mentioned, this study needs to take both a qualitative and a quantitative approach as it calls for quantitative data collection for a qualitative subject. In this case, we feel that the mixed methods approach is the most fitting to our study as it covers both approaches and will therefore be the main method for our research. The study will begin by producing valid tests with the selected speech sounds mentioned and the results will be analyzed first qualitatively through empirical observation in a natural classroom setting and data will then be analyzed with the help of a quantitative approach where errors in pronunciation are measured and then presented in the form of circle graphs.

In terms of the method of empirical observation, we use a “direct (reactive) observation”. This means that the students most likely understand that they are being tested for something, although they are not sure of what, and put a conscious effort into
the exercise therefore not fully providing a natural behavior or setting. A disadvantage about the use of observation is that this method is quite flexible, which also means that generalizations cannot easily be made. The days these tests were carried out may not reflect the usual competences of the students. We could have been testing on days where the students did not get enough sleep the night before or are nervous for a test coming up the following week etcetera, which unfortunately limits us in gathering a reliable image of what they are and are not capable of.

In a tutorial by Laura Brown of Cornell University, she states: “In observational research, findings may only reflect a unique population and therefore cannot be generalized to others” (www.socialresearchmethods.net). Brown also speaks of one of the researchers being biased during observation, as may subconsciously have been the case for us as we each have previous experiences of the students and therefore also perhaps a subjective relationship to what we expect from them as individual learners. Another issue is that both observers should take notes during the testing of productive and receptive skills so as to limit the risk of any information (or in this case pronunciation error) being lost in the observation data collection process. This can cause a dilemma; however, as the observers may at times find that their notes show varying results, making performance analysis challenging.

5.2 Focus groups

The focus groups we chose for this degree paper were 8th graders, around 14 years of age, in the local towns of Lund and Eslöv. These groups were chosen due to the fact that this is where we were assigned to have our teaching practices. Because of previous experiences with these particular students and classes, it was appropriate to execute and collect the data from these specific groups. After some discussion concerning which level of proficiency would be suitable, it was decided that 8th graders would be best suitable for the abilities we were looking to test. This was based on the fact that we were both aware of roughly what can be expected of them at this level due to our teaching experiences with the classes as well as extensive discussions with the supervisors.
The schools in Eslöv and Lund are both public secondary schools, and can thus be seen to be representative of typical Swedish schools. After spending four years at the practice schools and following the progress of English L2 students, we have a basic understanding of how much of the English language the 8th grade classes have been exposed to inside the classroom. They seem to be at an important stage in their language development as they have gained some proficiency in the target language but also still have a natural interest in learning. Both classes are quite large (26 students in Eslöv and 26 students in Lund) and represent a large variety of strengths and abilities within the subject of English.

There are of course numerous amounts of considerations to take into account when it comes to background, gender, abilities etcetera but this will not be the focus of this degree paper as the intent is to place the main focus on perception and production issues of specific English speech sounds in the L2 classroom. On the other hand, we cannot forget that every student does not have Swedish as their mother tongue. Although this is also very important to take into account when analyzing the process of transfer, the results of our findings can only be based on issues from a Swedish language perspective. Considering all the different factors mentioned, the selection of participating students in the tests had to be based on an overall spread of language competences so as to obtain a larger perspective of what is difficult for a “typical” Swedish student learning English pronunciation. In order to collect a range of language competences, a smaller group was picked out specifically with advanced, average and weak students when conducting the second test in each test round focused on reading and pronunciation (appendices 3 and 4). These smaller groups, in turn, therefore consisted of approximately 10 students in each 8th grade class at both schools.

5.3 Conducting the tests

As mentioned earlier, the selected English speech sounds are the most noticeable elements of English pronunciation that the students at the teaching practice schools find to be challenging. Since the aim of our tests was to pinpoint which speech sound the students would have the most difficulty with, the words chosen for the tests therefore included the selected English speech sounds /θ/, /ð/, /ʃ/, /ʃ/ and /dʒ/. These phonemes
were tested in initial and final position, as well as in and out of context, to give this degree paper a better perspective of the pronunciation problems that occur in the tested Swedish L2 classrooms.

One of the schools, from which the data was collected, is situated in central Lund and will be referred to in this degree paper as the Lund School. Similarly the school in central Eslöv will be referred to as the Eslöv School.

We decided to be present at each other’s school when the tests were conducted in order to collect as correct data as possible as well as attempting to minimize the risk that one observer would potentially have a preconceived notion of the results/abilities of “their” students. The tests were conducted during an English lesson and included both a listening (receptive) activity and a speaking activity (productive). The listening activity (appendices 1 and 2) asked the students to simply listen to which word the teacher said and then circling the word they perceived. As the students were asked to circle one of the two written options that they perceived, we would be able to investigate the students’ perception of specific phonemes. The test was built up of 30 word pairs, e.g. sheep and cheap, that included specific English speech sounds. It was decided that the students should not be given any insight into what was being tested. The tested words were mixed with other non-tested words in order for them not to be able to figure out what was the focus of the test. The test also included some words that may not have been familiar to them so as to test their understanding of spelling in relationship to pronunciation.

In this test the speech sounds occurred in initial position eight times versus seven times in final position. This test also consisted of 15 extra words, which did not contain any speech sound that this degree paper will investigate, in order to ensure that the purpose of the research was not obvious for the students (appendices 7 and 8). The outcome of this exercise would consequently provide this study with a better understanding of which words the students seem to have difficulties with and which sounds tested cause the most errors.

The second activity included approximately ten students from each of the classes that read sentences to us, so as to give us as observers an even better understanding of which errors that occur in terms of producing the tested speech sounds. The second test included students that in our own opinion represented a general overview of weak and strong students and a few with average English language skills and abilities. This was done because there was only time to listen to ten students reading and not e.g. 25
students, therefore we had to decide on a fixed amount. In discussion with the
supervisors at the selected schools, ten students became the fixed amount that were
chosen to represent the class as well as possible in terms of skills and abilities.

The second part of the test was built up of seven sentences for the students to read
out loud (appendices 3 and 4) in order for data to be collected on students’ productive
skills as well. The sentences included sounds that represented what was needed to gain
data on the difficulties of different speech sounds. The second activity, during the first
test round, included seven words containing English speech sounds in initial position
and eight words containing speech sounds in final position (appendices 9 and 10).

In order not to be biased, we were both present when the student read the
sentences in order to obtain a more detailed view of the results as possible (appendices 9
and 10). As one of us in each case had previous experience from the classes, we as
observers could unintentionally have let our personal relationship influence the results
negatively or positively.

Difficulties that arose when conducting the tests at the first school were that the
students did not understand the format of the test at first. In order to get the students to
understand, the instructions were explained twice for the students and the test was
actually restarted so as to make sure that every student understood what was being
asked of them. Another difficulty that arose, when the reading test was conducted, was
the dissimilarity in results that sometimes was apparent after the comparison of note
taking. These variations in results needed to be compared between us after each test.
Thus, when the student read the sentences, (appendices 3 and 4) notes were taken and
later compared to get as accurate results as possible. The notes took two forms: either
the student pronounced the word correctly, resulting in a successful communication, or
the student pronounced the word incorrectly and here the communicative aspect
potentially was lost.

In order for this degree paper to provide as deep and understanding of the issues
of pronunciation for L2 students as possible, another similar test was conducted at the
same schools and in the same classes as the first two tests. This was done so as to gain a
better understanding of to what extent context played a role when it comes to
pronunciation abilities. The second test round was therefore built up as an inversion of
the first two tests so as to test the role of context (appendices 5 and 6). In contrast to the
first full class test in round one (appendix 2), the full class test in round two provided
the students with a context (appendix 5). They were now asked to listen to and then
write down (perceive and spell) words including English speech sounds. Spelling played an important role in this exercise since the task was to listen and then write down the word they were hearing. This meant that when analyzing the results, it was important to be aware of the fact that a student may be very good at perceiving which word was being said but could have had difficulties when spelling the word. Likewise, this awareness needed to be applied when analyzing the results of all the different types of tests as some tested receptive, and some productive skills. It is most likely the case that some students have stronger productive skills and others have stronger receptive skills meaning that it is risky to draw broad conclusions about which speech sound is causing the problem when the problem may actually be the result of a student’s ability, or disability, to perceive or produce the sounds.

The second test in round two was different from round one in that the context was eliminated in order to see how well the students could read (produce) words with the selected English speech sounds without context. As with the previous test, reading skills could have impacted the results here as well. The student may have had great production skills in terms of speech sounds, but difficulty when reading them.

The purpose of inverting the tests when it came to context was done because we wanted to examine if the words tested were more difficult or easier for the students to recognize and write down/read out. The first test in the second test round consisted of seven words containing the selected English speech sounds in initial position and seven words containing difficult speech sounds in final position.

In the second test during the second test round, words containing the selected English speech sounds in initial and final positions were tested. In this test, 12 words containing English speech sounds were tested (appendices 12 and 13).

The design of the two whole class tests was very practical when it came to correcting and marking them in order to get sufficient data for the results and analysis since the exercises called for the students to either mark a correct or incorrect answer on a piece of paper. The two smaller tests provided this degree paper with a rich amount of data from approximately ten students on each occasion. However, the differences in notes we took as observers during the smaller tests, created a problem as our results sometimes showed variations. This problem was solved by discussing the results directly after the smaller test had been carried out so that the notes and final results would be as reliable as possible, hence giving this degree paper more reliable information to draw conclusions from.
These results will act as support for our research questions where the role of context is questioned. The results will also help us understand to what degree there is a problem with speech sounds in initial position in contrast to speech sounds in final position. The differences that show in the results will be discussed and analyzed later on in order to get as accurate results as possible and attempt to find possible answers to our research questions.

The results of the tests that were conducted at the selected teaching practice schools form the basis of this degree paper. The results were gathered at two different schools on two separate occasions. Through all of the four tests sufficient data was collected in order to draw conclusions in relation to the research questions. This means that approximately 50 students (an average of 25 students representing a full class) were tested during the first part of each test round, and approximately 20 students (an average of 10 selected students with different levels of English) were tested during the second part of each test round.

The first test round (appendices 1 and 2) tested students’ abilities to perceive English words containing chosen speech sounds out of context. The results showed that the students (46 students) at both schools have a bigger problem with e.g. /tʃ/ and /ʃ/-sound in initial position than the same speech sound in final position. Below are the results from test 1:1, which tested the students’ receptive skills.
As noted these results show the overall percentage concerning the students’ results in test 1:1. A sample of the detailed evaluation of test 1:1 (appendices 7 and 8) proves that the /ʃ/ phoneme posed a bigger problem for the students in initial position than the /ʃ/ phoneme in final position.
In the second part of the test, during the first test round, (appendices 3 and 4) a total of 19 students from both schools were tested on their productive skills. This time they were asked to read out sentences containing words with chosen speech sounds in a context. The following are the results from test 1:2 (appendices 3 and 4):
This time we achieved similar results at both schools, which show that the students have the same amount of difficulties in initial position as in final position when a word with a selected English speech sound is placed in context.

A deeper understanding of the similar tests results from test 1:2 are shown in the figures below which describe the similarities further when analyzing the results on a phoneme level.
This sample of the detailed evaluation of test 1:2 (appendices 9 and 10) showed evidence that there actually is a difference in results when it comes to the selected speech sound being presented in context in final or initial position. The results of test 1:2 also showed that the other tested speech sounds, e.g. the /dʒ/ phoneme, proved the same difference in results when it came to comparing the same phoneme in initial and final position in context (appendices 9 and 10).
During the second test round, the same type of tests (appendices 1, 2, 3, 4) were used but in an inverted manner when it came to the words/sentences being presented in or out of context. This time the students’ abilities to perceive words with selected English speech sounds were tested in a context. They were asked to first listen to the word in a context (sentence) and then write the word down. Below are the results:

**Test 2:1**

![Initial position](image)

**Initial position**

- Correct: 70%
- Incorrect: 30%

![Final position](image)

**Final position**

- Correct: 64%
- Incorrect: 36%

Figure 6:9, Results of test 2:1: Speech sounds in initial position with context (receptive skills)

Figure 6:10, Results of test 2:1: Speech sounds in final position with context (receptive skills)
Unfortunately, this time fewer students were able to take part in the test at one of the schools. The results of the full class test (26 students) showed obvious differences in results between the schools. The differences between initial position and final position in the schools will be further analyzed in the discussion. However, it is interesting to point out in the following graphs that the role of context clearly influenced the results in that there is a difference in the amount of errors in e.g the /tʃ/ phoneme when it comes to final and initial position in a word.

**Detailed results of test 2:1**

<table>
<thead>
<tr>
<th>Position</th>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>Initial</td>
<td>63%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Figure 6:11, Detailed results of test 2:1: /tʃ/ phoneme in final position with context (receptive skills)

Figure 6:12, Detailed results of test 2:1: /tʃ/ phoneme in initial position with context (receptive skills)
As shown in this detailed graph, context seems to be an aid for the students when they are dealing with these selected speech sounds. However, when it came to the same phoneme being presented in final and initial position, it was still obvious that there is a difference as in the previous noted results (appendices 11 and 12).

During the last test carried out, 17 students were asked to read out (productive skill) words out of context containing selected English speech sounds.

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**Test 2:2**

**Initial position**

- Incorrect: 52%
- Correct: 48%

*Figure 6:13, Results of test 2:2: Speech sounds in initial position without context (productive skills)*

**Final position**

- Incorrect: 18%
- Correct: 82%

*Figure 6:14, Results of test 2:2: Speech sounds in final position without context (productive skills)*
In this final test one word containing a selected speech sound occurred in the middle position of the word. However since the test only included one word with this positioning of phoneme it will not provide this degree paper with an extensive amount of data and will hence only provide an interesting angle for further studies.

To further demonstrate the differences in our results that occur between initial and final position, the following graphs represent our results on a phoneme level:

**Detailed results of test 2:2**

![Initial position](figure615.png)

Figure 6:15, Detailed results of test 2:2: /θ/ phoneme in initial position without context (productive skills)

![Final position](figure616.png)

Figure 6:16, Detailed results of test 2:2: /ʃ/ phoneme in final position without context (productive skills)
Once again, the results prove that the students find it more challenging to produce selected English speech sounds when placed in initial position (appendices 12 and 13). An analysis of this result will be further discussed in the following section.
In order to summarize our results we need to first mention that there are small differences in results between the two tested schools. The results from both schools show that the students seem to find it most difficult to perceive and produce words containing the /ʃ/ (i.e. cheap) and /ʃ/ (i.e. sheep) phonemes. When one of the sounds occurred in initial position, the students seemed to find it more challenging to perceive and produce than when the /ʃ/ sound occurred in final position, and they instead perceived or produced the /ʃ/ sound. The reverse pattern was apparent when students were asked to produce the /ʃ/ sound as well. The result was an interesting find due to the fact that the /ʃ/ fricative sound occurs quite often in the Swedish language, yet there is no similar affricate, whereas English has the /tʃ/ affricate sound. Perhaps that is one of the reasons why errors occur more often for Swedish learners of English specifically with these two sounds?

Since the /ʃ/ sound is very familiar to a Swedish learner of English, yet the /tʃ/ sound if foreign, it is possible that learners have difficulty picking up on variations between the two because of the similarity between the English /tʃ/ sound and their native /ʃ/ sound. In relation to the contrastive analysis hypothesis (CAH), which suggests that where languages are similar, positive transfer will occur, our results clearly show that this hypothesis cannot be applied to all areas of language. Pronunciation does, in fact, seem to be an exception to the rule since it was found that when the tested Swedish students are presented with a foreign speech sound that is very similar to their native language, positive transfer did not occur as they had difficulty differentiating between the familiar sound and the new sound. Additionally, error analysis may be applicable to our results as it can be seen that learners are drawing false conclusions about the rules of the L2 English speech sounds when trying to perceive or produce, for example, the new /tʃ/ sound. This could be due to an internalized phonological knowledge, that causes the students to expect the English /tʃ/ speech sound to be identical to the Swedish /ʃ/ sound even though it is in fact only similar.

Other speech sounds, such as /θ/ (i.e. thanks), /ð/ (i.e. this) and /dʒ/ (i.e. joke), that
do not have Swedish equivalents were also tested but during the process of conducting the tests, it was discovered that the /tʃ/ and /ʃ/ phonemes were the most prominent errors, which led to a placement of testing emphasis on this specific problem.

In order to get sufficient data for the research, different examples of the discussed speech sounds were included, as well as other sounds that have been brought to attention in the past as sounds that are challenging for the tested students. After analyzing the perception and production of the selected speech sounds, it was apparent that regardless of which sound was being tested, the students always had difficulties when producing words when the specific speech sounds were placed in initial position. The results also showed clear evidence that the same speech sounds placed in final position were much easier for the students to produce. What could be the reason for this? Is it possible that the L1 language has such a strong influence on the L2 that it is easier to produce speech sounds when they are identical to the L1? Our results suggest that this seems to be the case.

For example the word *match (=game)* in Swedish contains the /tʃ/ speech sound in final position, thus making it familiar to the learner when producing or perceiving words such as “etch”. However, the Swedish language does not have any words with the /tʃ/ speech sound placed in initial position thus perhaps causing it to be an obstacle for the learner to produce when presented with words such as “cheap”.

When it comes to the students’ receptive skills, they are able to make a distinction between the speech sounds and performed very well on the listening tests when the /tʃ/ and /ʃ/ phonemes occurred in words/sentences (in context). As seen in figures 6:9 to 6:12, context was an aid to the students when it came to their receptive skills. The results show that when the sounds were put into a context the students’ performance increased compared to when the sounds were presented without a context. In terms of productive skills, context also positively influenced the students’ results, as seen in figures 6:5 to 6:12.

Moreover, as previous research suggested and according to what the results show, it is very likely that negative transfer played a part when errors occurred. This was however difficult to see when context was involved in the exercises since it may have masked the problem of negative transfer in the results when dealing with individual sounds. We of course cannot prove exactly why specific pronunciation errors were apparent during the tests, but when it came to perceiving and producing selected English speech sounds, the results clearly show that the speech sounds found in initial
position were very difficult to perceive and produce. This result is most likely due to the fact that Swedish does not have similar positioning of these speech sounds and sometimes no similarity between the actual English speech sounds themselves in Swedish, as is the case with the /θ/ sound for example.

The results from the students that participated in this study form the basis of this degree paper and on this note it is important to stress that the results and conclusions are based solely on these tested students. This paper can therefore not draw any general conclusions concerning whether or not Swedish students tend to make the discovered errors since the amount of data collected is insufficient.

7.1 Working towards improved pronunciation

The aim of this degree paper was to carry out a research project within the field of pronunciation errors in the Swedish L2 classroom. Through the tests, results and discussion, this degree paper has provided an overview of some of the pronunciation problems that occur in the Swedish L2 classrooms. So what are some of the possible ways of helping students overcome these challenges in pronunciation?

According to this paper and claims made by e.g. Harmer, one way of eliminating these pronunciation problems is to make the students aware of the errors that they make. Explaining why the pronunciation errors occur by e.g. describing different aspects of pronunciation that are not identical in English and Swedish is one way of going about the issue. Through this degree paper it has been made apparent that some difficulties may arise due to specific speech sounds, i.e. the /tʃ/ and /ʃ/ sounds, posing a problem for Swedish students because of the close relationship between the sounds in Swedish and English. This fact should be made clear to the students and lessons containing exercises working on these pronunciation problems would help the students become more aware of their own learning, hence making them more proficient language learners. Another way for educators to help is to show the students how the words are produced, by for example making them aware of how and where the tongue should be positioned in the mouth when producing certain difficult speech sounds.
Working with L2 phonology continuously is according to this degree paper one of several ways in which pronunciation errors may be eliminated and students’ pronunciation improved.
8 Conclusion

As English is becoming an increasingly more important and global language, the importance of English being communicative cannot be denied. Although pronunciation is a form-based aspect of language and the Swedish syllabus places more weight on function instead of form, we would like to argue that in the case of pronunciation, form needs to be taken into account in the classroom when working with pronunciation in order to achieve an overall communicative competence. Despite the limited focus on this topic in the Swedish syllabus, we cannot claim that little focus is being brought to it within the classroom, as this is completely dependent on how much the teacher chooses to incorporate it into his/her lesson planning and we do not have any insight into this. Overall, we wish to bring further awareness to learners and teachers of pronunciation to the importance of a correct pronunciation in the English L2 classroom in order to prepare students for a world where English is evolving into a lingua franca.

Further research in this field could include a qualitative study. One possibility would be to enlarge the study by involving interviews to gain a broader understanding of issues concerning pronunciation for learners of an L2. A further study could include factors such as gender, linguistic background or other factors relating to the students as well as information concerning the responsibilities of a teacher, which in turn could give important insight into the process of acquiring English pronunciation.
References

Primary Sources:


Secondary Sources:


http://eltj.oxfordjournals.org/content/57/1/64.full.pdf+html?sid=1bc44241-b561-409f-900e-ed3649c4e02f


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<p>| 6:1 | The results of test 1:1: Speech sounds in initial position without context (receptive skills) |
| 6:2 | The results of test 1:1: Speech sounds in final position without context (receptive skills) |
| 6:3 | Detailed results of test 1:1: /ʃ/ phoneme in initial position without context (receptive skills) |
| 6:4 | Detailed results of test 1:1: /tʃ/ phoneme in final position without context (receptive skills) |
| 6:5 | Results of test 1:2: Speech sounds in initial position with context (productive skills) |
| 6:6 | Results of test 1:2: Speech sounds in final position with context (productive skills) |
| 6:7 | Detailed results of test 1:2: /tʃ/ phoneme in initial position with context (productive skills) |
| 6:8 | Detailed results of test 1:2: /tʃ/ phoneme in final position with context (productive skills) |
| 6:9 | Results from test 2:1: Speech sounds in initial position with context (receptive skills) |
| 6:10 | Results from test 2:1: Speech sounds in final position with context (receptive skills) |
| 6:11 | Detailed results from test 2:1: /tʃ/ phoneme in final position with context (receptive skills) |
| 6:12 | Detailed results from test 2:1: /tʃ/ phoneme in initial position with context (receptive skills) |
| 6:13 | Results from test 2:2: Speech sounds in initial position without context (productive skills) |</p>
<table>
<thead>
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<th>Time</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>6:14</td>
<td>Results from test 2:2: Speech sounds in final position without context (productive skills)</td>
</tr>
<tr>
<td>6:15</td>
<td>Detailed results from test 2:2: /θ/ phoneme in initial position without context (productive skills)</td>
</tr>
<tr>
<td>6:16</td>
<td>Detailed results from test 2:2: /ʃ/ phoneme in final position without context (productive skills)</td>
</tr>
</tbody>
</table>
Appendix 1

Test 1A (Perception, without context)

Pronunciation & Listening Exercise (Teacher’s copy)

Explain to the students that you will be reading out 30 words 2 times. Their job is to circle the word that they hear from the 2 options on their paper.

Some words they might not know but this is not a graded test, it is only for our study.

Prepare them for no talking and hand out the papers face down. They may turn over their papers only when told.

Read out each word from the list in bold twice. (The words marked in red are the words being tested, whereas the words in black are fillers. Collect the papers when they are done.)

1) **big** (= stor)  
   pig (= gris)

2) **joke** (= skämt)  
   choke (= kväva)

3) weather (= väder)  
   wetter (= blötare)

4) **cheap** (= billig)  
   sheep (= får)

5) edge (= kant)  
   etch (= etsa)

6) better (= bättre)  
   batter (= deg)

7) **lunge** (= utfall)  
   lunch (= lunch)

8) ridge (= upphöjd rand)  
   rich (= rik)

9) surge (= svallvåg)  
   search (= söka)

10) **hair** (= hår)  
    here (= här)

11) **bath** (= bad)  
    bat (= fladdermus)
<table>
<thead>
<tr>
<th>Number</th>
<th>Word (English)</th>
<th>Equivalent (Swedish)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12)</td>
<td>ship (= skepp)</td>
<td>chip (= chips)</td>
</tr>
<tr>
<td>13)</td>
<td>chop (= hacka)</td>
<td>shop (= affär)</td>
</tr>
<tr>
<td>14)</td>
<td>are (= är)</td>
<td>hour (= timme)</td>
</tr>
<tr>
<td>15)</td>
<td>joke (= skämt)</td>
<td>yolk (= äggula)</td>
</tr>
<tr>
<td>16)</td>
<td>shoe (= sko)</td>
<td>chew (= tugga)</td>
</tr>
<tr>
<td>17)</td>
<td>close (= stäng)</td>
<td>close (= nära)</td>
</tr>
<tr>
<td>18)</td>
<td>thirst (= törst)</td>
<td>first (= först)</td>
</tr>
<tr>
<td>19)</td>
<td>cash (= kontanter)</td>
<td>catch (= fånga)</td>
</tr>
<tr>
<td>20)</td>
<td>worse (= sämre)</td>
<td>worth (= värde)</td>
</tr>
<tr>
<td>21)</td>
<td>wish (= önskan)</td>
<td>witch (= häxa)</td>
</tr>
<tr>
<td>22)</td>
<td>chair (= stol)</td>
<td>share (= dela)</td>
</tr>
<tr>
<td>23)</td>
<td>sick (= sjuk)</td>
<td>thick (= tjock)</td>
</tr>
<tr>
<td>24)</td>
<td>vet (= vetrinär)</td>
<td>wet (= våt)</td>
</tr>
<tr>
<td>25)</td>
<td>thin (= tunn/smål)</td>
<td>fin (= fena)</td>
</tr>
<tr>
<td>26)</td>
<td>three (= tre)</td>
<td>free (= fri)</td>
</tr>
<tr>
<td>27)</td>
<td>watch (= klocka)</td>
<td>wash (= tvätta)</td>
</tr>
<tr>
<td>28)</td>
<td>thought (= tanke)</td>
<td>faught (= bråkade)</td>
</tr>
<tr>
<td>29)</td>
<td>juice (= juice/saft)</td>
<td>use (= användning)</td>
</tr>
<tr>
<td>30)</td>
<td>game (= spel)</td>
<td>came (= kom)</td>
</tr>
</tbody>
</table>
Example of phonetic evaluation of exercise 1A:
(Using IPA and not the American in the transcriptions)

1) **big** (= stor), voiced stop, initial, bilabial [bIg]
   **pig** (= gris), voiceless stop, initial, bilabial [pIg]

2) **joke** (= skämt), voiced affricate, initial, linguaalveolar [dʒok]
   **choke** (= kväva), voiceless affricate, initial, linguaalveolar [tʃok]

3) **weather** (= väder), voiced fricative, middle, linguadental [weðɔr]
   **wetter** (= blötare), voiced stop, middle, linguaalveolar [weʊtɔr]

4) **cheap** (= billig), voiceless affricate, initial, linguaalveolar [tʃip]
   **sheep** (= får), voiceless fricative, initial, linguapalatal [ʃip]

5) **edge** (= kant), voiced affricate, final, linguaalveolar [ɛdʒ]
   **etch** (= etsa), voiceless affricate, final, linguaalveolar [ɛtʃ]

6) **better** (= bättre), front monophthong vowel, e [bɛtɔr]
   **batter** (= deg), front monophthong vowel, a [bætɔr]

7) **lunge** (= utfall), voiced affricate, final, linguaalveolar [lʌndʒ]
   **lunch** (= lunch), voiceless affricate, final, linguaalveolar [lʌntʃ]

8) **ridge** (= upphöjd rand), voiced affricate, final, linguaalveolar [rɪdʒ]
   **rich** (= rik), voiceless affricate, final, linguaalveolar [rɪtʃ]

9) **surge** (= svallvåg), voiced affricate, final, linguaalveolar [sɔrdʒ]
   **search** (= söka), voiceless affricate, final, linguaalveolar [sɔrtʃ]

10) **hair** (= hår), front monophthong vowel, e [hɛr]
   **here** (= här), front monophthong vowel, I [hɪr]
11) **bath (= bad)**, voiceless fricative, final, linguadental  
   bat (= fladdermus), voiceless stop, linguaalveolar  
   \[\text{bæθ}\]  
   \[\text{bæt}\]

12) **ship (= skepp)**, voiceless fricative, initial, linguapalatal  
   chip (= chips), voiceless affricate, initial, linguaalveolar  
   \[\text{ʃɪp}\]  
   \[\text{ʃɪp}\]

13) **chop (= hacka)**, voiceless affricate, initial, linguaalveolar  
   **shop (= affär)**, voiceless fricative, initial, linguapalatal  
   \[\text{tʃɑp}\]  
   \[\text{ʃɑp}\]

14) **are (= är)**, central monophthong vowel, initial  
   hour (= timme), diphthong vowel, middle  
   \[\text{ɑr}\]  
   \[\text{aʊər}\]

15) joke (= skämt), voiced affricate, initial, linguaalveolar  
   yolk (= äggula), voiced glide, initial, linguapalatal  
   \[\text{dʒaʊk}\]  
   \[\text{jɑʊk}\]

16) **shoe (= sko)**, voiceless fricative, initial, linguapalatal  
   chew (= tugga), voiceless affricate, initial, linguaalveolar  
   \[\text{ʃuː}\]  
   \[\text{tʃuː}\]

17) close (= stäng), **voiced fricative, final, linguaalveolar**  
   close (= nära), **voiceless fricative, final, linguaalveolar**  
   \[\text{klos}\]  
   \[\text{klos}\]

18) thirst (= törst), voiceless fricative, initial, linguadental  
   **first (= först)**, voiceless fricative, initial, labiodental  
   \[\text{θɔrst}\]  
   \[\text{fɔrst}\]

19) cash (= kontanter), voiceless fricative, final, linguapalatal  
   catch (= fånga), voiceless affricate, final, linguaalveolar  
   \[\text{kæʃ}\]  
   \[\text{kætʃ}\]

20) **worse (= sämre)**, voiceless fricative, final, linguaalveolar  
   worth (= värde), voiceless fricative, final, linguadental  
   \[\text{wɔrs}\]  
   \[\text{wɔrθ}\]

21) **wish (= önskan)**, voiceless fricative, final, linguapalatal  
   witch (= häxa), voiceless affricate, final, linguaalveolar  
   \[\text{wɪʃ}\]  
   \[\text{wɪtʃ}\]

22) chair (= stol), voiceless affricate, initial, linguaalveolar  
   **share (= dela)**, voiceless fricative, initial, linguapalatal  
   \[\text{tʃɛr}\]  
   \[\text{ʃɛr}\]
23) sick (= sjuk), voiceless fricative, initial, linguaalveolar  [sk]
    thick (= tjock), voiceless fricative, initial, linguadental  [ðîk]

24) vet (= vetrinär), voiced fricative, initial, labiodental  [vɛt]
    wet (= våt), voiced glide, initial, bilabial  [wɛt]

25) thin (= tunn/smal), voiceless fricative, initial, linguaalveolar  [ðın]
    fin (= fena), voiceless fricative, initial, labiodental  [fìn]

26) three (= tre), voiceless fricative, initial, linguaalveolar  [ðrí]
    free (= fri), voiceless fricative, initial, labiodental  [frí]

27) watch (= klocka), voiceless affricate, final, linguaalveolar  [wɔtʃ]
    wash (= tvätta), voiceless fricative, final, linguapalatal  [wɔʃ]

28) thought (= tanke), voiceless fricative, initial, linguaalveolar  [ðɔt]
    faught (= bråkade), voiceless fricative, initial, labiodental  [fɔt]

29) juice (= juice/saft), voiced affricate, initial, linguaalveolar  [dʒus]
    use (= användning), voiced glide, initial, linguapalatal  [jus]

30) game (= spel), voiced stop, initial, linguavelar  [gɛtm]
    came (= kom), voiceless glide, linguavelar  [kɛtm]

**Summary:**
voiced vs voiceless: 8 pairs
voiced vs voiced:4 pairs
voiceless vs voiceless: 15 pairs

15 initial
1 initial + middle
1 middle
10 final
Appendix 2

Test 1A
(Example of student’s copy)

Which word is the teacher saying? Circle the option that you are hearing.

1) big (= stor) 
   pig (= gris)

2) joke (= skämt) 
   choke (= kväva)

3) weather (= väder) 
   wetter (= blötare)

4) cheap (= billig) 
   sheep (= får)

5) edge (= kant) 
   etch (= etsa)

6) better (= bättre) 
   batter (= deg)

7) lunge (= utfall) 
   lunch (= lunch)

8) ridge (= upphöjd rand) 
   rich (= rik)

9) surge (= svallvåg) 
   search (= söka)

10) hair (= hår) 
    here (= här)

11) bath (= bad) 
    bat (= fladdermus)

12) ship (= skepp) 
    chip (= chips)

13) chop (= hacka) 
    shop (= affär)
<table>
<thead>
<tr>
<th>Number</th>
<th>English Word</th>
<th>Swedish Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>14)</td>
<td>are (= är)</td>
<td>hour (= timme)</td>
</tr>
<tr>
<td>15)</td>
<td>joke (= skämt)</td>
<td>yolk (= äggula)</td>
</tr>
<tr>
<td>16)</td>
<td>shoe (= sko)</td>
<td>chew (= tugga)</td>
</tr>
<tr>
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<td>close (= stäng)</td>
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<td>came (= kom)</td>
</tr>
</tbody>
</table>
Appendix 3

Test 1B (Production, in context)

English 8

Pronunciation & Reading Exercise (Teacher’s copy)

Do this exercise with one student at a time. Explain to the student that their job is to read out the sentences one at a time while the teacher takes notes. Tell them to please read slowly and clearly. Some words they might not know but this is not a graded test, it is only for our study.

1) I was sitting at the edge of my seat when Sandra told me the joke.

2) Andrew has his mouth full of chips and was chewing loudly.

3) The juice that is sold at the store is not expensive; it’s actually really cheap.

4) The man lunged his entire body into the ocean surge.

5) I hope the police catch them before they drive off that steep (=brant) ridge.

6) She was watching him chop the carrots on the kitchen counter.

7) He jumped out of his chair when he saw the scary witch in the movie.
Appendix 4

Name: __________________

Test 1B

English 8

(Example of student’s copy)

Read out the sentences slowly while your teacher takes notes.

1) I was sitting at the edge of my seat when Sandra told me the joke.

2) Andrew has his mouth full of chips and was chewing loudly.

3) The juice that is sold at the store is not expensive; it’s actually really cheap.

4) The man lunged his entire body into the ocean surge.

5) I hope the police catch them before they drive off that steep (=brant) ridge.

6) She was watching him chop the carrots on the kitchen counter.

7) He jumped out of his chair when he saw the scary witch in the movie.
Appendix 5

Name: __________________

Test 2A (Perception, in context)

English 8

Pronunciation & Reading Exercise (Teacher’s Copy)

Explain to the students that you will be reading out 15 words. First they will hear the word on their own and then the word will be placed in a sentence. Their job is to write down the word they are hearing.

Some words they might not know but this is not a graded test, it is only for our study. They just need to do the best they can in terms of listening and spelling.

Read out the sentences slowly while the students try to perceive and write them down.

1) At the edge of the piece of paper.
2) A good joke usually makes people laugh.
3) Fish and chips are a typically British dish.
4) Chewing with your mouth open is gross and rude.
5) Do you want a glass of orange juice for breakfast?
6) “Tele 2, born to be cheap!”
7) Martin lunged towards the elevator door before it closed.
8) Getting too close to the strong surge of the ocean is dangerous.
9) “Catch the ball!” yelled Tommy.
10) I have a small birthmark on the ridge of my nose.
11) She stood there watching the car leaving as it turned around the corner.
12) Please chop the carrots into really small pieces.
13) The large kitchen is the first room when you enter the house.
14) Everyone has to put their chair on the table at the end of the day.
15) She dresses up as a scary witch every Halloween.
Appendix 6

Test 2B (Production, without context)

English 8

Pronunciation Exercise (Teacher’s copy)

*Explain to the students that their job is to read out 12 words.*

*Some words they might not know but this is not a graded test, it is only for our study. They just need to do the best they can in terms of reading.*

*Read out these words slowly while your teacher takes notes.*

1) weather – middle
2) thought – initial
3) wash, final
4) three – initial
5) chair – initial
6) wish – final
7) cash – final
8) chew – initial
9) joke – initial
10) search – final
11) lunch – final
12) etch – final