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Compensation Strategies in English as a Foreign Language

A study of strategy use in immediate receptive situations

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Abstract

This study maps compensation strategies in English as a foreign language used in immediate receptive situations by students of English and other modern languages. By mapping these strategies, language learners’ thinking processes are made visible, which in turn may assist teachers in modifying teaching methods. The study is comparative and highlights the difference in the use of strategies between learners who exclusively study English and learners who study at least one other modern language apart from English. The focus is on two major components of second language acquisition, viz. grammaticality and unknown words in context. Two major strategies have been used: (1) a quantitative analysis, and (2) a qualitative analysis, of sentences and words in context. Data have been collected from two surveys and two sets of recorded introspection with ten informants. This study proposes a classification of receptive compensation strategies including a division of achievement and avoidance strategies. The findings from the comparative study point out the major differences between learners of English only and learners of other modern languages. Finally, a discussion about what these results may imply for teaching is given.

Key words: compensation strategies, receptive strategies, avoidance and achievement, English, teaching

Sammanfattning

Studien kartlägger kompensationsstrategier i engelska som främmande språk och hur de används i omedelbara receptiva situationer av elever i engelska och andra moderna språk. Genom att kartlägga dessa strategier synliggörs elevers tankeprocesser, vilket i sin tur kan hjälpa lärare att modifiera sina arbetsmetoder. En jämförande studie belyser skillnaderna i användningen av strategier hos elever som enbart läser engelska och elever som läser minst ett modernt språk utöver engelska. Fokus ligger på två betydande komponenter i andraspråksinlärning, nämligen grammatikalitet och okända ord i kontext. Två vedertagna forskningsmetoder används: (1) en kvantitativ, och (2) en kvalitativ, av meningar och ord i sammanhang. Datansamlingen har gjorts genom två enkäter och två omgångar av inspelade introspektioner med tio informanter. Den här studien föreslår en klassificering av receptiva kompensationsstrategier som inkluderar en indelning av utvidgande och inskränkande strategier. Resultaten från den jämförande studien visar skillnad i strategier hos elever med enbart engelska som främmande språk och elever som i tillägg läser moderna språk. Avslutningsvis ges en diskussion om vad dessa resultat kan innebära för undervisningen.

Nyckelord: kompensationsstrategier, receptiva strategier, inskränkande och utvidgande, engelska, undervisning
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1. Introduction

During the last decades one of the most contentious issues has been in what way and to what extent students learn what the teacher is trying to teach. Most of the time there is a thought behind the students’ product, but the problem is that their lines of thought do not always lead to the desired result as stipulated by the rules of the language they are learning. In light of this fact, it is reasonable to say that if language teachers know more about the way students think when learning a language, they would find more efficient teaching methods adapted to the student’s way of learning.

This was the main reason for the largest research project in Sweden regarding language learning, the STRIMS (strategies for learning modern languages) project. The objective was to examine students’ thinking processes and strategies when learning a modern language. Learning strategies have become a key term in second language acquisition, SLA. The STRIMS project inspired the present study and the focus is the concept of strategies, which are a vital part of today’s view on language learning and are part of the present course plans in languages in both the Swedish compulsory and non-compulsory school system. In the new subject plans for languages of the Swedish school system, which will be implemented in the fall of 2011, strategies are given even more importance. Therefore the present study fits in naturally in the prevailing view on language, and as such contributes to enrich the understanding of what strategies students use, how they use them, and what implications this brings for teaching.

The field makes a distinction between learning strategies and communication strategies. Learning strategies refer to strategies used for learning whereas communication strategies pertain to strategies used for communication. The focus of the present paper will be communication strategies, also referred to as compensation strategies, since they bear the most resemblance to the situation the students are in when practising the language in its natural environment, and also in school, when faced with a test or other immediate situation where a linguistic problem has to be solved. The strategies examined here are of a non-interactional nature.

The result of this study will contribute to increased awareness of the strategies used by students, which may help teachers in refining and extending the students’ use of strategies, thus increasing the students’ language flexibility and language awareness; major goals for language learners in general, and in the Swedish school system in particular.

1.1 Aims

The aim of this study is to map foreign language student strategies in solving linguistic problems in English. The study focuses on strategies used by students when solving problems of grammar and vocabulary emerging from their linguistic and non-linguistic resources. Secondly, a comparison of strategy usage will be made between two groups, viz. a group of students that studies English only and one group that studies English and at least one other modern language such as Spanish, German, French, or Italian. The reason is to ascertain to what extent, if any, students of other modern languages apart from English benefit from their extra linguistic knowledge when solving a linguistic problem in English, i.e. do they use more, and if so, more elaborate strategies? Such a comparison will highlight the differences between English and modern language teaching from which both parties can profit. Thirdly, a discussion of what these results may imply for teaching is given.

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1 STRIMS is short for “Strategier vid Inlärning av Moderna Språk”. The term strategies is defined in section 2.1.
2. Theoretical background

This chapter provides a definition of the term communicative competence and how strategies fit in. This is followed by a history of the attempts at taxonomies for strategies and their implementation in the classroom. It continues with the role of strategies in the Swedish syllabi for languages. The largest project on language awareness in Sweden, the STRIMS project, is discussed, with a special focus on grammar and vocabulary. The chapter concludes with an attempt at classifying the strategies as seen in this study.

2.1 Defining communicative competence and strategies

The term communicative competence was coined by Dell Hymes (1972) who thought that, thus far, the notion of competence was too narrow in that it did not account for the social and functional rules of language sufficiently. Canale & Swain (1980) refined Hymes’ definition and defined communicative competence as consisting of four components, see below:

<table>
<thead>
<tr>
<th>Communicative competence</th>
<th>Grammatical competence</th>
<th>Discourse competence</th>
<th>Sociolinguistic competence</th>
<th>Strategic competence</th>
</tr>
</thead>
</table>

Figure 1 Definition of communicative competence by Canale & Swain (1980).

Grammatical and discourse competence refer to the linguistic system whereas sociolinguistic and strategic competence relate to the functional aspects of communication. Grammatical competence thus embodies “knowledge of lexical items and of rules of morphology, syntax, sentence-grammar semantics, and phonology” (Canale & Swain 1980, 29) while discourse competence focuses on intersentential relationships, i.e. how sentences are connected to form meaningful utterances in both spoken and written discourse. Sociolinguistic competence refers to the sociocultural norms of language and discourse. Strategic competence, according to Canale & Swain (1980, 30), is “the verbal and nonverbal communication strategies that may be called into action to compensate for breakdowns in communication due to performance variables or due to insufficient competence”.

Research on second language acquisition had until the 1960’s and 1970’s focused on teaching rather than learning. This new way of looking at communicative competence meant a shift of focus from teaching to learning. The view on grammar changed and the practical purpose was placed above the theoretical (Malmberg 2001). The starting point was now what the student should be able to do with the language. David Wilkins and Jan van Ek were in the 1970s the pioneers within the language research group launched by the European Council to promote language learning as part of the promotion of European heritage and linguistic diversity in order to increase the mobility of persons and ideas (Council of Europe 2011). This project resulted in a common European framework for language teaching and learning, CEF, where strategies became an important factor, above all, in the process of increasing students’ awareness about their own language learning (Andered 2001).

In 2001 the Council of Europe published The Common European Framework of Reference for languages: Learning, Teaching, Assessment, CEFR (2001). In this document the following definition is included:

Language use, embracing language learning, comprises the actions performed by persons who as individuals and as social agents develop a range of competences, both general and in particular communicative language competences. They draw on the competences at their disposal in various contexts under various conditions and under various constraints to engage in language activities involving language processes.
to produce and/or receive texts in relation to themes in specific domains, activating those strategies which seem most appropriate for carrying out the tasks to be accomplished. The monitoring of these actions by the participants leads to the reinforcement or modification of their competences. (CEFR 2001, 9)

The definition of strategy is “any organized, purposeful and regulated line of action chosen by an individual to carry out a task which he or she sets for himself or herself or with which he or she is confronted” (CEFR 2001, 10). Furthermore, it is stated that communication and learning involve various kinds of tasks that require the use of strategies. The relationship between task and strategy depends on the nature of the task and communication and learning strategies are just some strategies among many (CEFR 2001, 15-16). Strategies are seen as “a hinge between the learner’s resources (competences) and what he or she can do with them (communicative activities)” (CEFR 2001, 25).

In this way, strategies are classified according to production, reception, interaction, and mediating. Production strategies refer to both spoken and written language and are further divided into avoidance and achievement strategies. Avoidance strategies are a way of reducing ambitions to fit the language user’s available resources in order to ensure success in communication, whereas achievement strategies are the opposite; the language user finds ways to get the original message across (CEFR 2001, 63). Reception strategies involve reading and listening and consider context and knowledge of the world, i.e. linguistic and non-linguistic cues (CEFR 2001, 72). Interaction strategies encompass all production and reception strategies, and strategies specific to discourse, for example, strategies related to real time and face-to-face interaction (CEFR 2001, 84). Mediating strategies concern situations where the language user’s primary goal is to interpret or translate someone else’s meanings (CEFR 2001, 87). Examples include spoken interpretation and written translation as well as summarizing and paraphrasing.

The term strategy is not easily defined and several attempts have been made. Some of the questions concerning strategies are, according to Tornberg (2009, 26), whether the strategies are conscious or not, and whether the use of strategies contribute to learning in a direct or indirect way. Ellis (1994, 532-533) lists some of the ways the term “strategies” has been used in SLA:

1. Strategies refer to both general approaches and specific actions or techniques used to learn an L2
2. Strategies are problem-oriented – the learner deploys a strategy to overcome some particular learning problem
3. Learners are generally aware of the strategies they use and can identify what they consist of if they are asked to pay attention to what they are doing/thinking
4. Strategies involve linguistic behavior (such as requesting the name of an object) and non-linguistic (such as pointing at an object so as to be told its name)
5. Linguistic strategies can be performed in the L1 and in the L2
6. Some strategies are behavioral while others are mental, thus some strategies are directly observable, while others are not
7. In the main, strategies contribute indirectly to learning by providing learners with data about the L2 which they can then process, however, some strategies may also contribute directly (for example, memorization strategies directed at specific lexical items or grammatical rules)
8. Strategy use varies considerably as a result of both the kind of task the learner is engaged in and individual learner preferences

L2 or second language refers to any language learners learn after their first or native language, L1. In pedagogy, there has been some debate over whether there is a distinction between second language and foreign language learning and teaching. The distinction is based on what social and communicative functions the language serves within the community where it is learned. For
example, in countries such as Canada and Belgium people need more than one language for social, economic, and professional reasons (Oxford 1990, 6).

In contrast, a foreign language does not have immediate social and communicative functions where it is learned, but is rather learned to communicate elsewhere. This view classifies teaching and learning English and other modern languages in Sweden as foreign language. However, it is argued that this distinction is not easily defined since, for example, English plays an important role in certain areas of society in countries such as India where it is used for education, government, and business. The situation in Scandinavia has also been said to be a mixed context since English occupies such a high unofficial status. Today, above all, larger immigration groups and information technology have made other languages accessible in large parts of the world, and the multiplicity of contexts worldwide thus makes it difficult to draw a clear-cut line between second and foreign language (Brown 2007, 205-206).

This study accepts the differences between second and foreign language contexts as outlined above, but the impact on strategies is not affected by this distinction. Strategies are used by native and second/foreign language learners alike as seen above, and this will also be exemplified in section 2.2. Hence, the term “learner” will be used throughout this paper in relation to strategies. Lastly, strategies can be seen as part of the field of language awareness and learner autonomy. However, elaboration on these concepts goes beyond the scope of this paper.

2.2 Taxonomy history of strategies

The concept of strategies is introduced in relation to interlanguage communication and a number of researchers contribute to the shift of focus from teaching to learning and learners, as mentioned above, among others Tarone, Cohen, and Dumas (1976), S. Pit Corder (1981), and Færch and Kasper (1983).

A classification, which has been the basis for further research on strategies, is introduced by Tarone (1977, 197) and is based on five basic categories: avoidance, paraphrase, conscious transfer, appeal for assistance, and mime. This refined classification is in turn based on Tarone, Cohen, and Dumas (1976) where the types of communication strategies emerged from what they observed in interlanguages and involved phonological, morphological, syntactic, and lexical aspects of language. Examples are transfer from the native language, overgeneralization, epenthesis, paraphrase, topic avoidance, and language switch. In this study communication strategy is defined as “a systematic attempt by the learner to express or decode meaning in the target language, in situations where the appropriate systematic target language rules have not been formed” (Tarone, Cohen & Dumas 1976, 5).

One of the first attempts to classify communication strategies has been made by Corder (1981, 103), who states that “communicative strategies are a systematic technique employed by a speaker to express his meaning when faced with some difficulty” (1981, 103). This investigator claims that the strategies depend on the persons involved in the communication. Hence, he believes strategies to be of an interactional nature. Moreover, he explains that the confusion between communication and learning strategies depends on the fact that it is difficult to say whether a certain feature is the result of the learner's interlanguage or of a communicative strategy. Learning strategies are thus part of the development of the interlanguage. However, Corder (1981) explains that a learner who wishes to get a message across sometimes does not have enough language resources to do so. When this happens the learner has two choices; either he can adjust his

2 Epenthesis is the addition of one or more sounds to a word, e.g. athlete > ath-e-lete.
3 Language switch can be said to be a combination of foreignizing (using a L1 word adjusting it to L2 phonology and/or morphology) and code-switch (using a L1 word with L1 pronunciation while speaking L2).
message to the resources available to him or he can attempt to increase his resources in different ways to get his message across. The former is referred to as message adjustment strategies or risk-avoidance strategies and the latter is called resource expansion strategies or risk-taking strategies. Examples of message adjustment strategies are topic avoidance, message abandonment, and message reduction. Examples of resource expansion strategies are borrowing, paraphrasing, and circumlocution.

The first psycholinguistic approach is made by Færch and Kasper (1983), and it is regarded as such even though their classification corresponds to both Corder (1981) and Tarone (1977). Færch and Kasper (1983, 36) define communication strategies as “potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal”. They claim that learners can solve communication difficulties by avoidance or achievement behavior. Accordingly, a distinction between reduction strategies and achievement strategies is made. They define compensatory strategies as a subtype of communication strategies saying it is used due to insufficient linguistic resources (1983, 46). If a learner’s achievement strategy is successful it contributes to the learner’s interlanguage and thus his learning overall. Finally, Færch and Kasper (1983, 56) claim that “by learning how to use communication strategies appropriately, learners will be more able to bridge the gap between formal and informal learning situations, between pedagogic and non-pedagogic communicative situations”.

It should be noted that these researchers regard learners as speakers, interlocutors, or individuals, which means that the communication strategies defined are also used about native speakers. Corder (1981) and Tarone (1977) make a difference between learning and communication strategies whereas Færch and Kasper (1983) believe that a learner learns a second language by using communication strategies. The universal language processing strategies are considered a cause of learner errors and of the learner’s interlanguage system. All three distinguish between two major types of communication strategies, viz. those that avoid communication problems, and those that test the learner’s linguistic ability. Communication strategies are thus used to bridge the gap between communicative need and a learner’s linguistic resources.

In the 1980’s the field of strategies grew rapidly, but the difficulties of defining, classifying and describing the strategies remain even if certain relevant progress has been made (Tornberg 2009, 25). Influential researchers are among others Wenden and Rubin (1987), Poulisse (1989), Oxford (1990), Dörnyei (1995) and Brown (2007). Due to the difficulty in classifying learning and communication strategies, learning strategies are also accounted for where needed.

The learner perspective is brought up by Wenden (1987) who claims that these issues have not yet been examined, i.e. the learner’s perception of what they do to learn, how they manage their learning, and their conscious strategies for learning and communication. Her argument is that former studies have focused on universal language processing strategies and communication strategies as cognitive processes in second language acquisition (Wenden 1987, 3). She explains that learner strategies include three major concepts: learning behaviors or strategies, learner’s strategic knowledge, and learner’s own knowledge of aspects of their language learning apart from the strategies, for example, personal factors (Wenden 1987, 6-7). Further, Wenden (1987) acknowledges that there is a general consensus that the term strategy lacks a definition. For this reason, she attempts to define strategies or behaviors as specific actions or techniques, as observable or non-observable, as problem oriented, as contributing directly or indirectly to learning, as consciously deployed or automatized, and as amenable to change (Wenden 1987, 7-8). Rubin (1987) builds on Wenden’s classification and suggests three kinds of strategies that directly or indirectly contribute to language learning: learning strategies, communication strategies, and social strategies. Learning strategies are further divided into cognitive and
metacognitive strategies. Communication strategies are used by speakers when faced with some difficulty and their purpose is better communication (Rubin 1987, 26).

Hitherto, the most extensive study on communication strategies has been done by Poulisse (1989) through her Nijmegen project. It lasted for four years and 45 Dutch learners of English at three different proficiency levels participated. Poulisse (1989, 7) makes a clear distinction between second language acquisition and language use. She argues that communication strategies belong to the latter, i.e. communication strategies are seen as an aspect of communication used by second language learners and native speakers alike. The definition of communication strategies in the Nijmegen project (Poulisse 1989, 21) was based on the definition of compensatory strategies by Færch & Kasper (1983) and is as follows:

Compensatory strategies are strategies which a language user employs in order to achieve his intended meaning on becoming aware of the problems arising during the planning phase of an utterance due to his own linguistic shortcomings.

Two points are crucial to this definition: one is that the problem must be linguistic, and the other that the language user must attempt to achieve his originally intended meaning (Poulisse 1989, 21). The taxonomy of the theory of compensatory strategies used for classification of the data in the Nijmegen project is based on two major archistrategies, a conceptual and a linguistic one. They are further divided into two separate types of strategies, as seen below (Poulisse 1989, 59-61; Tornberg 2009, 57):

<table>
<thead>
<tr>
<th>Main strategies</th>
<th>Compensatory Strategies (Communication strategies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual</td>
<td>Analytical (circumlocution, description, paraphrase)</td>
</tr>
<tr>
<td></td>
<td>Holistic (superordinate, subordinate, or co-ordinate concept)</td>
</tr>
<tr>
<td>Linguistic</td>
<td>Morphological Creativity (word formation)</td>
</tr>
<tr>
<td></td>
<td>Strategy of Transfer (borrowing, literal translation, foreignizing)</td>
</tr>
</tbody>
</table>

Figure 2 Poulisse's taxonomy of communication strategies.

Non-verbal strategies, called mime, are categorized into the main strategies in the Nijmegen project. According to Poulisse (1989, 109) mime is used in companion with other types of compensatory strategies, which is why it is not classified as a separate type of compensatory strategy. Non-verbal strategies can also be used separately, but then the intended concept is typically enacted or pointed at.

Moreover, a new system of language learning strategies regarding learning as both the process of learning and of acquisition, is offered by Oxford (1990, 4). Learning strategies are defined as specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferrable to new situations. Strategies are divided into two major categories: direct and indirect. Each category is further divided into three groups, as seen below (Oxford 1990, p. 16):

<table>
<thead>
<tr>
<th>Learning strategies</th>
<th>Direct strategies</th>
<th>Indirect strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Memory strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cognitive strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compensation strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metacognitive strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affective strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social strategies</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3 Oxford's taxonomy of learning strategies.
According to Oxford (1990, 14) direct and indirect strategies support each other and each strategy group can connect and assist every other strategy group. Each group is then subcategorized into various subgroups, and these into further subgroups. For a detailed description of the classification, please see Oxford (1990, 16-22). She states that classification conflicts are inevitable and, for example, a strategy such as synonyms are by some considered a learning strategy while by others it is categorized as a communication strategy not useful for learning (1990, 22). This kind of strategy may be seen as part of the compensation strategies where Oxford (1990, 19) defines two subgroups named Guessing intelligently and Overcoming limitations in speaking and writing. Learners may guess intelligently by using linguistic or other clues. Some ways of overcoming limitations in speaking and writing may be to switch to the mother tongue, to get help, to avoid communication partially or totally, to adjust or approximate the message, to coin words, or to use circumlocution or synonyms. Oxford gives detailed and amply exemplified suggestions on how to apply the strategies to the four language skills (1990). She offers many suggestions on how to teach strategies, as seen in section 2.3.

Whereas Oxford includes interactional strategies, Dörnyei (1995) excludes interactive strategies, thus restricting it to devices speakers use when they have difficulties in verbalizing a mental plan for lack of linguistic resources (Dörnyei 1995, 57). He uses the following working definition of communication strategies “a systematic technique employed by a speaker to express his or her meaning when faced with some difficulty”. Due to the fact that the various taxonomies represented differ in both terminology and categorizing principles Dörnyei (1995, 58) suggests a core group of communication strategies that appear in all previous taxonomies, viz. avoidance or reduction strategies, achievement or compensatory strategies, and stalling or time-gaining strategies. Message abandonment (leaving a message unfinished) and topic avoidance (avoiding topic areas or concepts which pose language difficulties) are examples of avoidance strategies, and circumlocution (describing or exemplifying the target object or action), approximation (using an alternative term expressing the meaning of the target lexical item as closely as possible, e.g. ship for sail boat), and literal translation (translating literally a lexical item, an idiom, a compound word or structure from L1 to L2) are examples of achievement strategies. Dörnyei stresses the fact that his definition of communication strategies is broad in order to cover a wide range of devices that enhance communication, including stalling strategies (1995, 60).

Next, another attempt at classifying strategies is through the four skills of listening, speaking, reading, and writing (Brown 2007, 136). He states that learning strategies typically involve the skills of listening and reading as opposed to communication strategies. His definition of the term “strategies” is “the moment-by-moment techniques that we employ to solve problems posed by second language input and output” (Brown 2007, 132). He explains that the field of second language acquisition has distinguished between two types of strategies, viz. learning strategies and communication strategies. The former pertain to input, i.e. how learners process, store, and retrieve messages from others in the target language. The latter relate to output, i.e. how learners productively convey messages to others in the target language. It is however sometimes difficult to separate the two as comprehension and production can occur almost simultaneously. Brown also lists certain techniques that have proved to be successfully teachable, see section 2.3.

All of the above, except Dörnyei (1995), classify communication or compensation strategies as being interactional, but the CEFR refines this view further by including compensation strategies in receptive skills such as reading and listening. The CEFR refers to strategies, as described earlier, in terms of the four skills, hence their classification of strategies into production strategies, reception strategies, interaction strategies, and mediating strategies. Production strategies are further divided into avoidance and achievement strategies, a classification widely accepted within the field of communication strategies, as seen above.
Summing up, it is clear that strategies are not easily defined or categorized as mentioned earlier. However, there seems to be a consensus about the distinction between learning and communication, or compensatory, strategies. Moreover, it is valid to divide communication strategies into two major groups, viz. those that avoid the original message and those that achieve the original message despite the learner’s insufficient linguistic knowledge. The focus of the present study will be the strategies referred to as communication or compensation strategies. It should be noted that the research on strategies has a clear focus on lexical problems, and it is unclear whether these taxonomies cover grammatical problems, i.e. the kind of strategies learners use to bridge gaps in grammatical knowledge (Ellis 1994, 402).

2.3 Teachable strategies

Much research has been done within the field of strategies and second language acquisition, but the area of teachable strategies is still growing and developing. The application of learning and communication strategies to the classroom is known as strategies-based instruction, SBI, or learner strategy training (Brown 2007, 140). The focus of this instruction is to teach learners how to learn, thus increasing learner autonomy and language awareness and enhancing the comprehension and production of the target language. If students understand their own thinking and processes of learning they will become more successful learners. However, the field of strategy research has yet to provide conclusive evidence on how strategies develop; do learners have to re-learn strategic competence or do they use the competence they have developed in their mother tongue? This has pertinent implications for strategy teaching where some claim that the more language they know the more strategies they will develop, whereas others believe strategy training to be crucial. Some researchers also argue that strategies inhibit acquisition and linguistic competence (Ellis 1994, 402-403). These issues can only be resolved through more extensive and meticulous research.

There are certain steps involved in the implementation of SBI, where the first one is to identify a learner’s style and strategies (Brown 2007, 142). The most common method is to let the students do a self-check questionnaire. The most widely used questionnaire is the Strategy Inventory for Language Learning, SILL, by Oxford (1990, 293-300). Other forms are interviews, think-aloud procedures, and journals. Once the learners’ strategies are identified, teachers can make learners more aware of useful strategies in various contexts both inside and outside the classroom. Brown (2007, 145) provides examples of how to promote strategies in the classroom, including how to lower inhibitions and how to encourage risk-taking. According to Brown (2007, 136) several strategies concerning reading and listening have proven successfully teachable, such as elaboration and inferencing, selective attention to keywords, and taking notes.

Oxford (1990) provides ample material and advice on how to teach strategies in relation to the four skills, for example, how to use linguistic clues when reading in order to guess intelligently. Strategy training should be “highly practical and useful for students” according to Oxford (1990, 201) and she claims that strategy training can be taught in at least three different ways: awareness training, one-time strategy training, and long-term strategy training (1990, 202-203). Awareness training is where strategies are made conscious to the learner, also known as consciousness training. One-time strategy training involves learning and practising one or more strategies with actual language tasks, for example, memory strategies. Long-term strategy training includes the same tasks as one-time strategy training, but it covers a greater number of strategies and students learn when and how to use them, and how to monitor and evaluate their own performance.

Examples of how to make learners aware of the strategies they use and can use in relation to the four skills are presented by Tornberg (2009). Above all, background knowledge and linguistic knowledge while reading and listening, and avoidance and achievement strategies when writing
and speaking, are stressed. The difference between bottom-up and top-down strategies is highlighted, where it is stipulated that students tend to use more bottom-up strategies than top-down, and need to be taught how to improve their top-down strategies (Tornberg 2009, 99).

2.4 Strategies in steering documents in the Swedish school system

In 2000 the Swedish course syllabi and grading criteria for the non-compulsory upper secondary school were revised. In modern languages, including English, it was desirable to reach a more uniform and coherent system in order to clarify the language progression and facilitate the transition between the compulsory and non-compulsory school system (Malmberg 2001, 20). The CEFR constituted the basis for the Swedish syllabi writers. Each syllabus contains the following sections: Aim of the subject, Goals to aim for, Structure and nature of the subject, and Goals that students should have attained on completion of the course (Skolverket 2011a). Key concepts are awareness and reflection where the students shall reflect and take increasing responsibility for their own learning. Language awareness can be seen as a basis for reflection (Malmberg 2001, 22). In the section Structure and nature of the subject it clearly states that “when their own language ability is not sufficient, students need to compensate for this by using strategies, such as reformulating, or using synonyms, questions, and body language” (Skolverket 2011a). This phrase is included in the course syllabus for English as well as modern languages. In relation to the taxonomy of strategies as described above, it can be said that the Swedish syllabi focus on communication or compensation strategies, rather than on learning strategies.

In the new course syllabi for modern languages and English for GY11† Aim of subject has replaced Aim of the subject, Goals to aim for, and Structure and nature of the subject in the present course syllabi (Skolverket 2011b). Each of the levels now has two major headings: Central contents, divided into Communication contents, Reception, and Production and interaction, and Knowledge requirements replacing the present Grading criteria. The term “strategies” is now explained under the heading Aim of subject (Skolverket 2011b): “Moreover, the students will be given the possibility to develop ability to use different strategies to support communication and to solve problems when their language skills are insufficient”. Five competences are listed as pre-requisites for the development of teaching of modern languages, whereof the third one is “ability to use language strategies in different contexts”. Within each course of modern languages, including English, the concept of strategies is more emphasized than in previous course syllabi and it has been categorized and explained in relation to the four skills. Hence, in the Central contents strategies are specified and exemplified under each subheading where relevant. For example, for level one under the heading Reception it says: “Strategies to perceive meaningful words and to draw conclusions about the contents, for example, with the aid of pre-knowledge”. Under the heading Production and interaction in level one it says “Strategies to solve linguistic problems in discourse, for example, reformulations, gestures, and questions” (Skolverket 2011b). The progression is clearer from level to level than in present course syllabi; see a comparison between stipulated strategies at level one and four below:

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*† GY11 refers to the new school system in Sweden implemented in the fall of 2011. All steering documents concerning the educational system are renewed and revised including the school law, curricula, and course syllabi for both the compulsory and non-compulsory school. For further information, please visit the Swedish National Agency for Education at http://www.skolverket.se.*
<table>
<thead>
<tr>
<th>Strategies</th>
<th>Modern languages level 1</th>
<th>Modern languages level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception</td>
<td>Strategies to perceive meaningful words and to draw conclusions about the contents, for example, with the aid of pre-knowledge</td>
<td>Strategies to perceive details and to understand context as well as to adapt listening and reading to the form, contents, and aim of the presentation</td>
</tr>
<tr>
<td>Production and interaction</td>
<td>Strategies to solve linguistic problems in discourse, for example, reformulations, gestures, and questions</td>
<td>Strategies to solve linguistic problem, for example with the aid of reformulations, questions, and explanations</td>
</tr>
<tr>
<td></td>
<td>Strategies to contribute to and actively take part in discourse, for example, by confirming, by follow-up questions, and by initiating new issues or topics</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4 Comparison of progression of strategies in new course syllabi for GY11 (Skolverket 2011b).

This emphasis of strategies and categorization of the same in relation to the four skills can be said to embody the use and definitions of strategies as portrayed in the CEFR. The connection to the state-of-art in language in general, and in the theory of strategies in particular, is clearly closer in the new course syllabi than the present ones. This is also motivated in terms of language awareness and learner autonomy where research and knowledge have grown in recent years.

### 2.5 The STRIMS project

The largest research project in Sweden regarding language awareness hitherto is the STRIMS (Strategies for learning modern languages) project, which was a longitudinal study over several years in the 1990s (Malmberg 2000). The idea of this project originated from a group of researchers at Uppsala University while in the process of defining new course syllabi for languages during the mid 80s. The group was heavily influenced by names in the field of second language acquisition, among others Færch and Kasper, also mentioned earlier in this study, and the CEF, the predecessor to the CEFR. They saw a need both for teacher-trainers and teacher-trainees to learn more about learners and learning strategies. They believed that language awareness was one of the most important requirements for efficient language learning. The concept of strategies is a salient feature within this field. This also coincides with the general shift of focus from teaching to learning and learners. They made no distinction between learning and communication strategies since the field still had not agreed on classification and terminology (Malmberg 2000, 6-12).

The languages involved the four most commonly taught languages in the Swedish school, English, French, German, and Spanish. The main aim of the project was to examine the students’ process of thinking and strategies when learning a modern language in the Swedish school. The age of the students participating in the study varied from twelve to 19 in order for the researchers to see whether strategies changed with age and maturity. One of the most commonly used methods in the project was introspection, i.e. a “think-aloud” method, where students’ processes of thinking were recorded, transcribed, and analyzed. This method was applied to all four skills, i.e. reading, listening, writing, and speaking (Malmberg 2000, 9).
One of the major conclusions of the project was that students early on find their own way of learning, and if no systematic approach to changing this is introduced, the student is likely to keep their individual way of learning. Another conclusion is that some students are capable of finding their own efficient learning strategies, but for the majority of students strategy training is vital in facilitating and developing their language learning in a positive way (Malmberg 2000, 226). A third conclusion was that students who actively and consciously work with strategies have a good possibility to become successful learners. The area of teaching strategies was not within the scope of the study; rather, the focus was to map student strategies. No attempt was therefore made to classify or categorize the strategies; the strategies used by the students were merely described.

Two major components of communicative competence of a language are grammar and vocabulary, both of which were examined in the STRIMS project. Both areas have been extensively researched when it comes to efficient learning methods. However, limited research has been done in relation to what strategies students use and to how strategies can facilitate problem-solving when faced with an acute linguistic problem with no other aid than the student’s own linguistic and non-linguistic resources. As mentioned before, the first step to teaching strategies is to map and identify the strategies that students use. Below follows the results from the grammar and vocabulary tests in the STRIMS project.

In the STRIMS project students were asked to answer a questionnaire about what they do when they learn grammar and grammatical rules. The result was that a clear majority of the students used deductive methods, i.e. first they learn a rule and then they practice on example sentences and exercises. The context was not important to the students - the example sentences worked equally well in isolation - but clarifications by the teacher were. This is according to those responsible for the STRIMS project surprising since there is a clear focus on teaching grammar with inductive methods, i.e. that the students are given example sentences and then try to draw conclusions about a given pattern (Malmberg 2000, 16). The test on grammatical sentences, where the introspective “think-aloud” method was used, yielded interesting strategy usage. The most common strategy in deciding a sentence’s grammaticality for all age groups was reference to the sound image, i.e. whether it sounds correct or incorrect. This can be related to the research on implicit learning where researchers claim that we can learn, for example, abstract rules unconsciously, much like when we hear if a melody is false or not (Malmberg 2000, 73). Otherwise overgeneralizations of known rules and repetitions of paradigms were used. In order for the rules and paradigms to be efficient they must be correct to start with. Sometimes the students use the meaning of the sentence to judge its grammatical correctness. A self-constructed metalanguage is another strategy used. Here the strategies did not vary with age. It should be noted that the tests were performed in the student’s target language, i.e. Spanish for students of Spanish, French for students of French, etc.

Another question in the same questionnaire was how students act when they meet unknown words in a text. The strategies were numerous, but here only the strategies where the student used his or her own resources available will be accounted for as this is the major focus of this study (Malmberg 2000, 24-27). Some of the strategies concerning unknown words were looking at the context, skipping the word if it is not necessary to understand the text as a whole, associating with similar words, comparing to other languages, and guessing. Here the use of strategies varied with age as it was more common to use context and a combination of strategies the older the student. Again, all the tests were implemented in the student’s target language. No elaborate or systematic comparison between the groups was made even if similar use of strategies between the groups were commented on. The learning methods or strategies for learning new words is an extensive area and is not brought up here as it goes beyond the scope of the present study.
2.6 Attempt at classifying strategies

The strategies mapped and examined in the present study focus on compensation, i.e. the strategies that students use to solve linguistic problems at one given point using only the resources, linguistic or non-linguistic, available at that time without external aid. This mimics the natural situation in which natural language is most commonly used – if no aid in terms of other interlocutors is available - and also the situation students are faced with in a test situation in school. The terms communication or learning strategies will not be used as research has shown that it is difficult to separate the two as communication and learning can occur almost simultaneously. Compensation strategies, CS, is a more suitable term. CS will here be used in relation to the four skills as outlined by the CEFR. However, I will argue that receptive strategies also can be divided into avoidance and achievement strategies, similar to production strategies. The classification of the mapped strategies in this study follows below:

<table>
<thead>
<tr>
<th>Compensation strategies</th>
<th>Receptive Strategies</th>
<th>Achievement Strategies</th>
<th>Avoidance Strategies</th>
</tr>
</thead>
</table>

Figure 5 Attempt at classification of strategies in the present study.

Compensation strategies thus refer to strategies that learners use to solve a linguistic problem using only their linguistic and non-linguistic knowledge available at the time. Receptive strategies refer to those strategies used when dealing with receptive skills such as reading and listening (Council of Europe 2001). Achievement strategies refer to those strategies a learner uses to attempt to increase his resources to reach a solution. Avoidance strategies refer to those strategies that a learner uses to adjust his solution to the resources available to him or to avoid the problem altogether.

This classification will facilitate and concretize the understanding of both the present and future course syllabi in English and modern languages. It should be noted that the strategies examined here are all non-interactional, i.e. they do not account for interaction between two or more interlocutors, but rather describe individuals’ use of strategies.

3. Method and materials

This study has used two different methods of collecting data, viz. a quantitative (a survey) and a qualitative (introspection). Both methods were used twice, once in the fall of 2010 and once in the spring of 2011. Both surveys were available to the same students and the same informants participated in both introspections.

The quantitative method was used in order to collect as much data as possible to be able to clarify tendencies based on a substantial number of answers. Another objective was to examine the difference between the group that only studies English and the group that studies English and at least another modern language. The survey allowed for connections between strategies and language choice. Surveys are not optimal in finding out how people reason and think, but the questions and the tasks were duly specified and the area was well-defined and limited (Johansson & Svedner 2010, 22).
Introspection is the process of observing the operations of one’s own mind\(^5\). The method was primarily used within the field of psychology and advocated by scientists such as Wilhelm Wundt (Malmberg 2000, 9). The data is registered, either by recording or by writing. In this case it was recorded and transcribed for ease of analysis.

All students participating in the study did so unbiased, i.e. they had not received any information or teaching regarding strategies beforehand.

### 3.1 Selection

The students participating in this study are students in year two at the Swedish non-compulsory upper secondary school. All the participants are students at study-oriented programs as opposed to vocational programs. They were chosen at the two schools where I am doing my teacher training. At school one, with a total of 340 students, offering a specially designed technology program for IT, group one was selected from the three classes in English B (second year English), which makes 67 students in total. These students do not study another modern language apart from English. Two of these groups have the same teacher whereas the third group has a different teacher. This group is referred to as English Only, EO, throughout the paper. At school two, with a total of 1600 students, offering various programs such as Arts, Business and Administration, Media, Natural Science, Social Science, and Technology, the second group was selected from those students studying a modern language at level four\(^6\). Within this group, two classes are Spanish (51 students), two are German (32 students), and one is French (eleven students); a total of 94 students. All these students also study English B. Five different teachers teach these groups. This group is referred to as English Modern Language, EML, throughout the present study.

The advantage with having informants of the two groups at two different schools is that they are not influenced by each other and neither are the teachers. The disadvantage is that all students are in study-oriented programs, which means that the result may be different if students from vocational programs had been participating. Further, regarding the second group, EML, students who consciously choose to study another language apart from English are most likely more interested in languages to start with, and therefore might exhibit greater language ability. This may result in overall higher language awareness. The question of gender representation in EO is that a clear majority of students is male whereas in EML there is a slight majority of females.

For the introspection five students were chosen from each group. In group one the teacher made the selection based on what she understood to be a good spread of proficiencies. In the modern language classes I asked for participants and five students volunteered in one Spanish class. After consulting the teacher, it was ensured that they also constituted a balanced spread in proficiencies. The fact that all informants were students of Spanish depends on my own presence in those classes. The introspection informants from EO consisted of four males and one female whereas the distribution was the opposite in EML, that is, four females and one male.

Year two students were mainly chosen because the teachers felt that there is a harmony among the students in the language groups in year two. Year one is much more turbulent in that many students change or quit after a while, and their proficiencies vary greatly depending on what school they have attended before coming to upper secondary school. Hence, the teachers know

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\(^6\) Level four typically apply to the fourth year of study where level one is beginner level and level six the most advanced level. Students studying level four in their second year in upper secondary school, typically started studying the language in year eight of compulsory school at the age of 13 to 14.
the students better in year two which ensured a balanced spread of proficiencies. Further, since my intention was to do a follow-up with the same students, I did not want to take the risk of losing the same students for introspection. Level four is also well motivated from the point of view that level three is the required level for university studies. Hence, the knowledge that students should have attained on completion of the course at level three could be tested without further due.

No control group was included, but the risk that the informants were influenced by the first survey and introspection was minimized due to the fact that it was five months between the surveys and the surveys focused on different phenomena. The students participating in the study did not receive any special teaching regarding strategies.

The falling off in the survey was greater at the smaller school than at the bigger one. In the first survey the falling off was 15% (14 students) at the bigger school and 25% (17 students) at the smaller school. In the second survey the numbers were 24% (23 students) and 45% (30 students) respectively. This is surprising since at the smaller school the students were given the opportunity to fill out the survey during class supervised by the teacher. At the bigger school a link to the survey was published on the student web-based portal since the teachers considered that there was not enough time during class. Consequently, the outcome may be slightly biased as the students who have taken time to fill out the survey are those that deem the survey and its result as important, and therefore may exhibit higher language awareness. The reasons for the falling off at the bigger school were that the survey was voluntary and that it had to be done outside class. Many teachers also related to “survey tiredness” among the students as they typically had to fill out a lot of surveys each school year. The reasons for the falling off at the smaller school could be that those students were absent due to sickness or other reasons during the particular class when the survey was done. It could also be that the student did not bother to fill it out despite the fact that it was done during class. Finally, it could be due to shortage of time, i.e. they would have needed more time than they were given in class and consequently quit the survey when time was up without having completed it. The link to the survey was then published in the web-based class room, but then it was voluntary and had to be done outside class. It is noteworthy that the manner in which the survey was carried out did not yield the expected result that students under supervision would be more prone to participate.

An alternative would have been to do both surveys at the same time or with less time in between to increase participation. However, judging from student feedback from the first survey, the time it took to complete the survey was enough for one occasion. The timing of the first survey was satisfactory as it came at the beginning of a new term before the start of the testing period. The timing of the second survey was less satisfactory since the students were in a heavy testing period at the same time as winter holiday caused an unfortunate break. Participation might have been higher given a different date for the second survey.

A total number of 134 students answered the survey in the fall and 108 students answered the survey in the spring. According to Johansson & Svedner (2010, 24) the number of answers should not be less than 200 for a survey, but in this case the total number of students available for this particular survey were only 161. In effect, the number 134 constitutes 83% of the available informants and 108 makes 67%, both of which are a clear majority.

There was no falling off during introspection; all ten students that participated in the introspection in the fall of 2010 participated again in the spring of 2011.
3.2 Data collection

The survey consisted of two parts, one for grammar and one for vocabulary. The questions were short, clear, and with alternatives (Johansson & Svedner 2010, 21-22). The only open question was when students could express in their own words how they reasoned about the various alternatives. The introspection also consisted of two parts, one for grammar and one for vocabulary. A more detailed description of the survey and the introspection follows.

It should be noted that the number of comments for EO (English only) is significantly lower than for EML (English + at least one other modern language) throughout both surveys. In the first survey regarding grammar, the EO students have on average given six comments per question, which means that approximately 12% of the students have bothered to comment. For EML the average number of comments per question is 33, which means that approximately 40% of the students have given their comments. In the second survey regarding vocabulary, the comments were scarce from both groups, and the average number of comments for each question was as low as four equally divided between the two groups.

3.2.1 Grammar

The grammar survey consisted of ten sentences in English where five sentences were grammatically incorrect. There was never more than one grammatical error in each sentence. Each grammatical feature was based on what students have learned at level three of modern languages. Several of the most commonly used course books in modern languages for level three were consulted and the selection of features is based on the most frequent occurrences. Teachers of modern languages were also consulted and agreed to the selection. The English sentences were then made up by me, and sent out for feedback to the teachers and my supervisor before being given to the students. The ten grammatical features in the grammar survey were: agreement, past tense, the present subjunctive, conditional clauses, the comparative, word order, the gerund, adverbs, relative pronouns, and personal pronouns (indirect object). The survey was designed so that the students saw one sentence at a time and each sentence was followed by three follow-up questions. First, they had to mark whether the sentence was grammatically correct or not. Secondly, they had to account for the strategy they used to reach this decision where the alternatives were ―I guessed‖, ―I knew because we have talked about it‖, ―It sounded correct/incorrect‖, and ―Other‖. Lastly, if they knew they had the option to explain how they knew in an open-ended question. This was optional.

The intention of the follow-up questions was to examine how the students thought when reasoning about a grammatical problem, i.e. what strategies they used when solving a linguistic problem using only their resources, linguistic and non-linguistic, available for that particular situation. They could only choose one option and the instructions clearly stated that they should choose the main strategy even if they used several.

They were not allowed to use any aid, but for the EML group there is no conclusive evidence that they did not. For the majority of students in the EO group it was ensured that they did not use any aids since the survey was completed during class under the supervision of their teacher. The information, instructions, and options were in Swedish in order to avoid that the target language became an impediment in solving the problems; the survey tests strategies and not English proficiency. They were also encouraged to answer the open question in Swedish.

The introspection was based on the same principles. The students were given five English sentences, selected as above, and were asked to reason aloud about what they thought about the grammaticality. The following grammatical features were tested: agreement, past tense, the
present subjunctive, word order, and personal pronouns (indirect objects). They were asked to reason in Swedish so that English proficiency would not be a decisive factor. Despite the fact that the method was new to them they adapted quickly, and showed no signs of nervousness or insecurity. All students reacted positively to the introspection.

3.2.2 Vocabulary

The second survey examined unknown words in context. It consisted of an English text divided into three different parts, and in each part three words were highlighted. The text was an extract from an article about Mt Everest, thus complying with the requirement of authentic material (Erickson & Börjesson 2001, 258). The level of the language complexity is compatible with that of texts found in textbooks for English B. The text and the selected words were sent to the relevant English teachers and my supervisor for feedback. For each word the students were given four alternative meanings in Swedish of which they could only choose one. After each three words, there was a follow-up question concerning their reasoning about how they reached the meaning. Here they were able to choose more than one option, but at least one. The options that they could choose from were: “I guessed”, “I knew”, “I understood from the context”, “I compared the word with other languages that I know”, “I used my knowledge about the topic”, “I used word formation”, and “Other –what?”. The last option was an open-ended question where they could elaborate their answer. Another format would have been to give them the strategy options after each single word, but the time it took to complete the survey was taken into consideration. Also, student feedback after the first survey was that it should be less extensive than the first one, and that it should be possible to check several options instead of one.

The introspection was based on the same principles and the text had the same topic, viz. Mt Everest. They were given a brief extract with four highlighted words, but no options. They thought and reasoned aloud and were encouraged to give a meaning to each of the four words in Swedish. Again, the reasoning was done in Swedish so as not to make the target language an obstacle. This time the students knew what was expected from them and did their best to offer a meaning to all four words. They reasoned aloud in Swedish without apprehensions.

The vocabulary in the survey and the introspection was carefully chosen based on various factors such as frequency, level of difficulty, origin, etc. Frequency in the text can be related to the importance of the word, i.e. if a word is vital to the central contents it occurs on a regular basis and is a key term to understanding the text. Level of difficulty refers to whether the word is abstract, concrete or belongs to an open or closed word class. Here a mixture of concrete and abstract words belonging to open word classes were chosen. The origin of the word refers to its language family, where an equal spread between Germanic and Italic languages was desired to cater for students’ language knowledge so that no group was disadvantaged. The English language teachers as well as my supervisor were consulted and the choice of vocabulary was approved by all of them.

3.3 Procedure

Both surveys were electronic and created with the web-based tool SurveyMonkey⁷. A link to the survey was published on the student web-based portal at both schools. This means that it was visible when the students logged onto their student web sites. This was established among the teachers as well as the technical administrative staff. An email was sent out to the language teachers informing them about the survey and its purpose. Contact details to me and my supervisor were given in case of questions. I also presented myself in person to the teachers and

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when the survey was published I walked around in all groups to inform and encourage the students to fill out the survey. Their teachers also reminded them about the survey. Further, I asked my introspection informants to remind their fellow students about the survey.

The first survey about the grammar was available in September 2010 for two weeks and the second survey was published in February of 2011. The second survey was available for a longer period of time since winter holiday came in between.

The introspection was carried out in a small group room. The students had been informed and contacted by me both by email and in person prior to the first session. Some of the informants in the EO group had also been informed by their teacher. The introspection was recorded and no student objected. The sentences and the text were given to them on a piece of paper, which they were not allowed to keep. They were also asked not to tell the other students about the contents of the introspection. Admittedly, there is a risk that the informants told their friends about the contents of the introspection.

All the students in both the survey and the introspection were informed that the survey was anonymous, that participation was voluntary, and that it could be cancelled by them at any time. They were further informed that the data was not to be stored and would be treated with confidentiality. It was also specified that neither the survey nor the introspection was a test or basis for grading. The same information was repeated to the informants before the introspection started.

3.4 Scope and limitations

The scope of the present survey is to map and compare the strategies students use in immediate situations to solve linguistic problems where no other aid is available. This mapping procedure can be seen as the first step to identifying a learner’s strategies, as explained in section 2.3. The study does not include interactional strategies, but rather non-interactional, receptive strategies, which mimic, above all, the test situation in school and also the natural situations where no help is available. The study does not seek to see whether these strategies contribute to learning or not. Nor is the purpose to suggest teaching methods for strategies in general or compensation strategies in particular, but rather to comment on implications for teaching. Finally, the study does not propose to examine in detail how efficient the various strategies are, i.e. to what extent they lead to correct solutions. The sample data is too small for generalizing, but tendencies will be commented on.

4. Analysis and Results

First, an account of the strategies used in grammar will be given followed by the strategies used in dealing with unknown vocabulary. For each section, the survey is treated first, then the introspection. Strategy usage in terms of efficiency, i.e. to what extent the strategies lead to a correct solution, is commented on where relevant. For grammar and vocabulary a comparison between the two groups will be provided and commented on. The chapter concludes with an attempt at describing individual compensation strategies.
4.1 Strategies used in grammar

4.1.1 Survey

The grammatical survey consisted of ten English sentences that the students were asked to reason about. The sentences displayed various grammatical phenomena as stated earlier, and the students were asked to say whether they were grammatically correct or not. Below follows a figure showing the structure of these sentences:

<table>
<thead>
<tr>
<th>Name</th>
<th>Sentence</th>
<th>Grammatical feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Our neighbor wash her car every week</td>
<td>Agreement</td>
</tr>
<tr>
<td>S2</td>
<td>Lisa didn't wanted to stay</td>
<td>Past tense</td>
</tr>
<tr>
<td>S3</td>
<td>His coach suggests that he leave at once</td>
<td>Present subjunctive</td>
</tr>
<tr>
<td>S4</td>
<td>I looked at him as if he were a being from outer space</td>
<td>Conditional</td>
</tr>
<tr>
<td>S5</td>
<td>Some students are cleverer than their teachers</td>
<td>Comparative</td>
</tr>
<tr>
<td>S6</td>
<td>Ran the cat away?</td>
<td>Word order</td>
</tr>
<tr>
<td>S7</td>
<td>When I arrived, they were leaving</td>
<td>Gerund</td>
</tr>
<tr>
<td>S8</td>
<td>They drive amazing carefully</td>
<td>Adverbs</td>
</tr>
<tr>
<td>S9</td>
<td>He said he left the house first which was absolutely correct</td>
<td>Relative pronouns</td>
</tr>
<tr>
<td>S10</td>
<td>Lisa gave he a book</td>
<td>Personal pronouns (indirect object)</td>
</tr>
</tbody>
</table>

Each sentence was followed by these options:

<table>
<thead>
<tr>
<th>Options</th>
<th>Wording</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1</td>
<td>I guessed</td>
<td>Guessing</td>
</tr>
<tr>
<td>O2</td>
<td>I knew because we have talked about it</td>
<td>Knowledge</td>
</tr>
<tr>
<td>O3</td>
<td>It sounded right/wrong</td>
<td>Sound image</td>
</tr>
<tr>
<td>O4</td>
<td>Other</td>
<td>Other</td>
</tr>
</tbody>
</table>

The label is merely a tool to facilitate the discussion in the present paper. The students also had the opportunity to comment their choice in an open ended question. Their comments will be summarized and analyzed throughout. Below follows a table of the strategies the students used when assessing the grammaticality of these sentences:
The survey shows that these students primarily use the strategy of sound image, i.e. they rely on the fact whether it sounds right or wrong. The second most used strategy is knowledge, i.e. they know that the sentence is grammatically correct or incorrect based on some rule known to them. How they know will be analyzed below. The third most used strategy is guessing. What the guess is based on is not examined in this study. They also use other strategies as seen by the alternative “Other”. However, what these strategies consist of is not revealed here. There are only two sentences where the answer “I knew” is more used than the sound image “It sounded right/wrong”, viz. S2 and S10. An analysis of each grammatical feature follows below.

For the first sentence, S1, dealing with agreement, the most used strategy was the sound image that 52% used followed by knowledge used by 38%. The comments reveal two major groups, those that stress the sound image and those that refer to a grammatical rule. Some comments on the sound image were “because you hear if it sounds right or wrong when you say it aloud in your head”, “I read it aloud and hear if it sounds right or wrong”, and “because it simply sounds wrong”. Among those that refer to a grammatical rule we find two groups, those that use a linguistic metalanguage and those that construct their own metalanguage. Some comments of the former were “in third person singular the verb should have the –es ending, so washes”, “in third person singular: he, she, it, you add an –s to the verb, hence washes”, and “we have talked about the fact that in third person singular you add an –s to the verb and our neighbor is third person singular”. In the latter group, some comments were “it’s supposed to be washes because it’s a she, I think”, “it’s about one person and then it should be –es on wash”, and “you have to add an ending to wash”. There are also some interesting remarks on the present tense used for habits such as “washes because she does it every week” and “the sentence means that she washes her
car every week”. Other interesting comments are “it is washes her car because she does it every week so it’s plural because it happens more than once”, “I knew because I can construct English sentences myself that are grammatically correct and I believe that this sentence is correct”, and “it sounds right, when you do something on a regular basis it is in base form”. Here indeed, confusion about tense and number, and over-assertiveness cause problems.

For S2, dealing with past tense, 50% claim they knew and 38% relied on the sound image. Of those who refer to knowledge we see the same two groups as above, those that use a linguistic metalanguage and those that construct their own. Examples of the former are “when the auxiliary did is there, the verb is not conjugated in the imperfect, but is in the infinitive form” and “with the do-construction in the past tense, the main verb should not be conjugated, only the auxiliary verb do”, and one of the latter is “didn’t shows that it’s in the past and that is why –ed on wanted is not needed” and “you don’t use the past tense on words after didn’t”. The comments regarding the sound image are similar to those for S1, that is, “sounds wrong”, “it sounds completely wrong to say wanted!”, etc. Some interesting remarks are “I’m really bad at remembering word classes, but I still know how words look in relation to each other, so the sentence should be Lisa didn’t want to stay”, “it depends on the fact that it is the present tense or the past tense”, and “it’s double imperfect”. Many students are thus aware that the sentence expresses the past tense and that it cannot be double marked by both “didn’t” and “wanted”.

Concerning the third sentence, S3, dealing with the present subjunctive, a majority, 52%, relied on the sound image. The comments concern above all agreement; that there is a missing –s on the verb “leave”. The students do not recognize the present subjunctive form, which is very common in, for example, American English. They apply rules that are more familiar to them, adding an –s on the verb in the third person singular in the present tense or adding the modal verb “should” before leave. It should be noted that the suggested forms are grammatically correct as well. A few comments concern the reference “he stops talking about the person, it sounds as if he means that the coach is leaving”.

For sentence four, S4, dealing with the conditional, 50% relates to the sound image. Again, the majority of the comments concern agreement; in this case claiming that it should be “was” and not “were” for the pronoun “he”. They fail to see the conditional clause for unreal events in the present where the subjunctive form of the verb be is used, here “were”. This is also common usage even if it should be noted that the verb form “was” is also grammatically correct although with a slight difference in meaning. However, they also consider the sentence incorrect due to other phenomena, such as it should be the word “like” instead of “as” and that there is something wrong with the word “outer”. This is a typical example of when a test does not yield the desired result since informants focus on other features than those examined. Some interesting remarks are “you don’t say that someone is a being, being is an adjective and not a subjective”. This student has mixed the words subject and “substantive” in Swedish meaning noun. Others want to elide “being” altogether while others think that “being” is the progressive form. The word “being” obviously creates problems. Moreover, some say that “it stops in the middle of the sentence, if should not be there”.

For S5, dealing with the comparative, 44% relies on the sound image and 40% on knowledge. The most common remarks relating to the sound image is that the word “cleverer” sounds wrong or that they have never heard it before, and the majority of the comments concerning knowledge show that students do not believe that “cleverer” is a word. Nearly all the comments suggest the construction “more clever”. Hence, they observe that a word is missing and the notion of how adjectives are compared is wide spread. Again, some students use a linguistic metalanguage, such as “the comparative”, while others use their own explanatory language. One interesting remark is “you can say both cleverer and more clever, personally I would have written
more clever, but both are correct‖. This portrays the tendency in English where the comparative form is more commonly formed with “more” and “most” instead of endings (Svartvik & Sager 1980, 273).

For the sixth sentence, S6, dealing with word order, 51% relies on the sound image. Most comments regarding the sound image stress the fact that it sounds completely wrong, and one student says “It sounds terrible. It stings my English ear!”. A clear majority of the comments suggests the do-construction as in “Did the cat run away?” where the word order is referred to as partial inversion (Svartvik & Sager 1980, 413). A few offers another solution by just swapping the word order around as in “The cat ran away?” where the word order is referred to as straight word order and the question has a rising intonation in speech. It seems as though a clear majority have a good understanding of how questions are formed in English. Most interesting is the fact that many of the comments refer to “Swenglish”. The students remark that “it sounds Swedish” and the “structure” and the “word order” are incorrect. Many claim that the sentence is a direct translation of the Swedish one, as seen below:

Swedish: Sprang katten iväg?
English: *Ran the cat away?*

For sentence seven, S7, dealing with the gerund, 50% relates to the sound image. Fewer comments are made here than on previous sentences. Some interesting remarks regarding the semantics of the sentence are made, for example, “you can’t be arriving, that’s why it should be I arrived, but on the other hand you can be leaving the place, so they were leaving”, “I read the sentence several times and felt it”, and “it’s turned the wrong way, they were leaving when I arrived, you don’t mention I first”.

For S8, dealing with adverbs, 53% rely on the sound image saying that it “simply sounds weird”. Again, the comments are fewer. The majority of students mention the word class adverb and seem to have a clear understanding of the difference between adverbs and adjectives. Nearly all answers offer the correct form of the adverb, that is, “amazingly”. Some comments show a linguistic metalanguage talking about adverbs, adjectives and suffixes, whereas others offer the correction in their own words such as “-ly should be on amazing, not careful, hence amazingly careful”.

For the penultimate sentence, S9, dealing with relative pronouns, 57% refer to the sound image. The comments are scarce and do not include any linguistic metalanguage. However, a few comments on the usage of “who”, “which”, and “what”, are made. Two comments concern other features of the sentence such as that-clauses “He said that he left…” and past tense as in “he said that he had left…”’. One interesting remark is “because we talked about the difference between which and witch”.

For the last sentence, S10, dealing with personal pronouns, here the indirect object form, 57% base their decision on knowledge. Some comments include a linguistic metalanguage such as “… it is wrong since Lisa should be giving the book to him, that is, a dative object…” and “the dative form of the pronoun he should be him”. The majority of comments offer the correct form “him” and compare it to the Swedish form “honom” (Eng. him). Many translate the whole sentence into Swedish and conclude that “he” is “han” in Swedish, which sounds wrong. Some interesting comments are “him instead because it’s a possessive pronoun”, “it’s not the present, but past tense, so it should be him instead”, and “he should be him since it’s a direct object”. Here we can see that some students are aware of the word class pronouns, but refer to the wrong type of pronouns, that is possessive instead of relative. The past tense is mentioned several times.

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In linguistics the asterisk denotes an ungrammatical word or phrase.
and must be influenced by the verb “gave” which is in the past tense. The last remark shows that the student is aware of a difference among the personal pronouns, but picks the wrong form of direct object instead of the correct one, indirect object. These remarks may also be seen as non-intelligent guesses as explained by Oxford (1990, 19).

Summing up, we see that the students heavily rely on the sound image even in cases where they clearly see what is wrong and offer the correct solution. In certain sentences they combine the sound image with knowledge judging from the comments. Another clear tendency is that more students explain in their own words than in a linguistic metalanguage. Some even comment on the fact that they have learned the rule or the grammar at some point, but that they cannot remember the correct naming of features. Other commonly used strategies are translation and comparison to their mother tongue, Swedish. We also see that the semantics of the sentence can cause problems to some students and sometimes they linger on a feature which is not the intended focus of the sentence.

Furthermore, it is interesting to see that the numbers for guessing are generally low throughout the survey. That indicates that the students consider the sound image strategy a more reliable and elaborate strategy than guessing. Therefore, the question about implicit learning is seminal (Malmberg 2000, 73).

From the survey it is difficult to categorize the strategies into avoidance or achievement strategies. The problem is above all that the survey was constructed so that the respondents had to answer each question, that is, if they wanted to avoid the grammatical structure altogether, they did not have the possibility to do so. Moreover, the strategies were given to them, which can be considered an aid to those students who had not thought in these terms before. However, for all sentences the students had the chance to choose the alternative “Other”, which in some cases may be interpreted as an avoidance strategy in that they did not know how to solve the grammaticality problem. On the other hand, this very same alternative has not been specified by the students so no analysis can be made. Knowledge, applied correctly, can be seen as an achievement strategy, whereas sound image can be either or, as explained below.

The present study does not aim to draw any conclusions on the efficiency of the strategies, i.e. to what extent a certain strategy yields a correct solution. Since the sample data is insufficient and the tendency is only observed at the group level, not at the individual level, it is also impossible to do so. Hence, strategies work differently for different individuals. However, when dealing with grammaticality there is an inherent interest in knowing whether a certain phrase or sentence is correct or not. Therefore a table of student answers is provided:
The alert reader will note that S1, S2, S6, S8, and S10 are grammatically incorrect. The sentences where a mismatch occurs, that is, where the students believe the sentence to be falsely correct or incorrect, concerns sentence S3, S4, and S5. All these sentences are grammatically correct, but a majority of the students deemed them as incorrect.

Considering these sentences, we see in S3 and S4 that half of them relied on the sound image whereas in S5 the sound image consisted of 44% and knowledge 40%, that is, the difference between sound image and knowledge was lesser. Looking at the survey in general, there is no correlation between the sound image strategy and incorrect answer since a clear majority use the sound image for sentences that they deem grammatically correct as well. However, it can be seen that the sound image does not always lead to the correct result, and as such it can in certain cases be regarded as an avoidance strategy that students use when their knowledge is insufficient.

4.1.2 Introspection

Introspection was carried out with a total of ten students and they are referred to as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>FE1</td>
<td>Female English only, no. 1</td>
</tr>
<tr>
<td>ME2</td>
<td>Male English only, no. 2</td>
</tr>
<tr>
<td>ME3</td>
<td>Male English only, no. 3</td>
</tr>
<tr>
<td>ME4</td>
<td>Male English only, no. 4</td>
</tr>
<tr>
<td>ME5</td>
<td>Male English only, no. 5</td>
</tr>
<tr>
<td>FM1</td>
<td>Female Modern languages, no. 1</td>
</tr>
<tr>
<td>FM2</td>
<td>Female Modern languages, no. 2</td>
</tr>
<tr>
<td>FM3</td>
<td>Female Modern Languages, no. 3</td>
</tr>
<tr>
<td>FM4</td>
<td>Female Modern languages, no. 4</td>
</tr>
<tr>
<td>MM5</td>
<td>Male Modern languages, no. 5</td>
</tr>
</tbody>
</table>

Table 2 Student survey on grammaticality.

![Student survey on grammaticality](image)

Figure 8 Naming of introspection informants.
The grammatical introspection consisted of five English sentences that the students were asked to reason about. The sentences displayed various grammatical phenomena as stated earlier. Below follows a figure showing the structure of these sentences:

<table>
<thead>
<tr>
<th>Introspection Grammar</th>
<th>Sentence</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>IG1</td>
<td>Tom don't play the piano.</td>
<td>Agreement</td>
</tr>
<tr>
<td>IG2</td>
<td>They hadn't wanted to stay.</td>
<td>Past tense</td>
</tr>
<tr>
<td>IG3</td>
<td>They demand that she accept the offer.</td>
<td>Present subjunctive</td>
</tr>
<tr>
<td>IG4</td>
<td>Do they not know?</td>
<td>Word order</td>
</tr>
<tr>
<td>IG5</td>
<td>We gave a present to they.</td>
<td>Personal pronouns (indirect object)</td>
</tr>
</tbody>
</table>

![Figure 9 Model of grammatical introspection sentences.](image)

Each sentence and strategy usage will be described below. The strategy efficiency will be commented on where relevant. The picture of type of strategy and correctness is more easily captured at the individual level as opposed to the survey. This is of importance to the implications of teaching, discussed later in this paper.

For IG1, the sound image and linguistic rule strategies are the most common. It is interesting to see that the sound image generates a correct result in half of the cases whereas the linguistic rules generate correct answers in all cases. This implies that the rule of the third person singular –s in the present tense is understood and correctly applied, as illustrated below:

FM1  It’s wrong, mm, third person plural, singular it is, you should add –s when it is, mm, in verbs, when it’s a verb, the progressive, the present, you add an –s in third person singular, so it reads Tom doesn’t play the piano

One interesting observation is the student who becomes entangled by the meaning of the sentence:

FE1  I say it’s correct…, it is…, he is…, he don’t play, it isn’t the case that he can’t play, uh, he is…, maybe he don’t want to or so /sigh/

The use of semantics yields an incorrect answer in this case, that is, the student is caught by the meaning of the sentence and as a result the grammatical focus is lost.

For IG2, the sound image and linguistic rule are again the most common strategies. However, in this case, both types of strategies yield an incorrect answer for all informants. An example of an incorrectly applied linguistic rule:

FM1  Wrong I think, correct form should be they didn’t want to stay, the do-construction, it isn’t the do-construction now, but it should be do-construction…, they didn’t want to, and after did, in the imperfect the verb is in its base form

The rule referred to is correct, i.e. in the past tense the do-construction takes the verb in its base form. Nevertheless, the original introspection sentence, IG2, is grammatically correct. Only one strategy yielded the correct result, and that was the strategy of translation by FM2. She translated the sentence into Swedish and found that it was correct and thus drew the conclusion that the English sentence was correct too. It should be noted that for the translation strategy to work the sentence structure must be similar in both languages. One of the students shows an elaborate display of strategies and tries different ways of getting at the answer. He is not satisfied and returns to the sentence when he has finished all others:
ME3  Mm, they did not want to stay, if it is in the present tense and… wanted to stay… just one second, I want to think…, I just try, if it should be in the past tense…, they hadn't wanted to stay, don't know, it still sounds correct that it should be in the past tense…, hadn't wanted to stay, I'll skip this for now…/they hadn't wanted to stay…, why did they leave? They hadn't wanted to stay, they didn’t want to stay, they didn’t want to stay or they had not wanted to stay, so had is something you own and did is something they do, or had is…, no, had, had, they had not wanted…, they did not want, I still believe that it should be they didn’t want to stay since it is something they did not want to do...

He tries repetition, asking questions, the sound image, the semantics of the verbs do and have, and finally becomes entangled in the meaning of the sentence which yields an incorrect answer. This means that instead of focusing on the grammatical structure, he shifts to the semantics of the sentence and bases his decision on a reflection of what the subject wants to do.

For IG3, the sound image and the linguistic rule were the most used strategies, similar to IG1 and IG2. In this case the sound image yielded the correct answer for all informants while the linguistic rule only yielded the correct answer for one third of the students. Similar to the survey, the majority of the informants reacted to the fact that there was a missing –s on the verb accepts. Interestingly, the informants who used the sound image were all correct, and two of those were the same informants that believed IG1 to be correct. Hence, these students did not react to a missing –s on third person singular in the present tense. The inconsistency in their interlanguage is clearly shown as described by Malmberg in the STRIMS project (2000, 73). Again, the translation strategy generates a correct answer in all cases. The only problem that occurs in the translation process is that of the English word “offer”, which is a homonym to the Swedish word “victim” (Swe. offer).

For IG4, the sound image and own rule are the two most common strategies. The sound image results in a correct answer for three out of five students and their own description of a linguistic rule generates a correct answer for three of four students. Example of a linguistic rule explained in their own words:

FM3  Since it is do in a question it should be the common, the base form, so it’s correct

Again, ME3 tries a range of strategies to reach a conclusion:

ME3  believe it’s the same problem as with the first one that…, does they not know…, wait a second…, no, do they not know, does he not know…, well, this was tricky! Do they not know…, do they not know, where are they? Do they not know? Well, yes, it sounds correct! Damned it!

He tries repetition, questions, reconstructing to another grammatical person, and finally relies on the sound image, which in this case yields the correct answer.

For IG5, the sound image and their own explanation of a linguistic rule are the two most commonly used strategies whereof the sound image is used to a greater extent. Here both strategies result in correct answers for all informants. A typical sound image strategy is that “it sounds much better with them”. Another strategy that yields a correct answer is the translation strategy where FM1 translates “they” and “them” into Swedish and thus reaches the correct form.
The introspection reveals that the sound image is the primary strategy for all grammatical introspection sentences followed by grammatical features explained in their own words. The strategy of sound image resulted in a correct answer for three fifths of the students whereas the strategy for grammatical features explained in their own words generated a slightly higher result. The third strategy that the students used was linguistic rules, but the efficiency was significantly lower, which means that in order for a linguistic rule to work it must be understood and applied correctly (Malmberg 2000, 73). Sometimes, either the understanding or the application fails. The fourth most commonly used strategy is that of translation, which among these informants yielded a correct answer in all instances. However, as mentioned earlier, the success of this strategy depends on whether the translation is correct and on whether the structure and features are similar in both languages. Another strategy displayed that caused problems was that of semantics. When the informant became entangled in the meaning of the sentence the result was negative as far as grammaticality was concerned, i.e. the answer was incorrect.

The most conspicuous observation is that the majority of the informants typically only use one strategy. There was only one student who used several strategies continuously, viz. ME3. In terms of avoidance and achievement strategies, the impression is that knowledge of linguistic rules applied correctly and translation applied to similar structures can be said to be achievement strategies. Linguistic rules seem to be more efficient when explained in the students’ own words as opposed to using a linguistic metalanguage. Again, the sound image can be seen as belonging to both types as it sometimes generates the correct answer and sometimes not. During introspection the impression is that the sound image was used when the student felt unsure of the grammatical construction, i.e. when their grammatical knowledge was insufficient. One observation is that when students get entangled in the semantics, they typically lose focus of grammaticality which in this study yielded incorrect answers. The semantics strategy for grammaticality can be said to be an avoidance strategy in that they shift in focus from the actual problem, consciously or unconsciously.

4.1.3 Comparison between EO and EML

A comparison of the use of strategies between the two groups will be made. Type of strategies in relation to efficiency will also be presented where relevant. EO refers to the group of students that exclusively studies English and no other modern language, and EML refers to the group of students that studies English and at least one other modern language. First a comparison of the survey is presented followed by a comparison of the introspection.

In the survey there are clear differences in the use of strategies between the two groups. Looking at the total number of times that each strategy was used per group, we see the following difference:
The table reveals that for EO the primary strategy is the sound image, followed by knowledge, guessing, and other. For EML, on the other hand, the primary strategy is knowledge, followed by sound image, guessing, and other. What the students base their guessing on is not examined neither is “Other” specified here, as stated earlier.

The strategy of knowledge means that students rely on their grammatical knowledge of the target language. The comments give a more elaborate explanation of this knowledge be it in their own words or in a linguistic metalanguage. It should be noted that the number of comments for EO is significantly lower than for EML throughout the survey, as mentioned in section 3.2. The numbers are repeated here: the EO students have on average given six answers per question, which means that approximately 12% of the students have bothered to comment. For EML, the average number of comments per question is 33, which means that approximately 40% of the students have given their comments. For the purpose of clarity I present the sentences one by one in relation to grammatical correctness where relevant. This mimics the presentation in section 4.1.1 and the reader should now be familiar with the sentences.

For S1, the comments from EO display the uncertainty about the grammaticality of the sentence. Several comments use “think” and “I’m not sure”. Only three comments offer the correct form of “washes”. The comments from EML, on the other hand, portray a certainty backed up with the rule of third person singular –s in the present tense. Nearly all comments use a linguistic metalanguage and offer the correct form. Many comments also display an explanation in their own language, for example, “our neighbor=he/she and therefore it should be washes and not wash”.

For the second sentence, S2, some EO comments say that “didn’t want” is better, but give no further explanation as to why. For EML the pattern is similar to that of S1; many offer a linguistic explanation with correct terms such as “base form”, “infinitive”, “auxiliary”, “main verb”, and “do-construction”, while others use their own language. A clear majority of the students give the correct form of “want”.

Table 3 Number of total strategies used on grammaticality per group.

The table reveals that for EO the primary strategy is the sound image, followed by knowledge, guessing, and other. For EML, on the other hand, the primary strategy is knowledge, followed by sound image, guessing, and other. What the students base their guessing on is not examined neither is “Other” specified here, as stated earlier.
For the third sentence, S3, where a majority in both groups say it is ungrammatical, the difference is still great between the two groups, where 77% in EML says it is incorrect as opposed to 54% for EO. In EO, there is only one comment simply saying “leaves” whereas in EML 33 students comment on agreement again applying the rule of the third person singular –s for the present tense. Some also gives the alternative with the modal verb “should”, as in “should leave”. Both these forms are grammatically correct, but they fail to see that S3 also is grammatically correct. This can be seen as an overgeneralization and over-application of a rule that is clear and familiar to them (Malmberg 2000, 73).

For S4, it is noteworthy that a clear majority of EO students, 62%, believe the sentence to be grammatically correct as opposed to an equally clear majority of EML students, 78%, who believe the sentence to be grammatically incorrect. Judging from the few comments in EO they want to change “were” to “was”, and in EML the certainty is greater where 35 students, either in their own language or in a linguistic metalanguage, explain why “were” is wrong and what it should be instead. It is interesting to see that the sound image yields a correct result whereas the application of a well-known rule yields an incorrect answer. One explanation can naturally be that the EO students do not detect the missing third person singular –s as is seen in S1, and the EML students again overgeneralize a rule which is well understood by them.

For the fifth sentence, S5, both groups agree that the sentence is ungrammatical, and both groups offer the alternative “more clever”. The comments from EO again display a certain uncertainty, while the comments from EML are more decisive. In addition, several students in EML also show an insight into how the comparative is formed and some say that both forms are correct. Again, linguistic terminology is only found in EML.

For S6, a clear majority in both groups consider the sentence to be ungrammatical. EO focuses on the relation between English and Swedish stressing “Swenglish” and direct translation. EML also mentions “Swenglish” and direct translation, but a majority refer to the structure of yes/no-questions in English with the do-construction. They also comment on the word order and sentence structure, and several students offer the correct alternative by merely changing the word order. Explanations are given both in a correct linguistic metalanguage and in their own words.

For the seventh sentence, S7, where both groups think the sentence is grammatical, not a single comment was given by EO, but the EML students comment on the progressive form or the –ing form. It is evident that an ungrammatical sentence spurs explanations, but when they deem a sentence to be grammatically correct, the students do not see the same need to explain why.

For S8, both groups find the sentence ungrammatical, and a few comments from EO merely display the word “amazingly”. In EML, 24 students explain why it cannot be grammatical and refer to the linguistic function of adverbs, how they are formed, and the difference between adverbs and adjectives.

For the penultimate sentence, S9, where a clear majority in both groups consider the sentence grammatically correct, there is only one comment from EO wanting to exchange “that” with “that”. The EML students comment on the usage of the relative pronouns who/which/what and some also gives the alternative “that”, but conclude that both are correct.

For the last sentence, S10, which yields the highest percentage in each group for grammatical incorrectness, 90% and 95% for EO and EML respectively, the EO students offer “him” as the correct form and one strategy is translation. The EML students also claim that the correct form is “him” and translation is also the primary strategy. However, several comments in EML also mention the terms “object”, “pronoun”, and “dative”.

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Summing up, it is noteworthy that not a single comment from EO includes a linguistic metalanguage. It is clear that students of modern languages are more familiar with grammar and grammatical terms than students of English only. It is clear that the EML students rely more on their knowledge thus referring to grammatical rules either in their own language or in a linguistic metalanguage. Nevertheless, the strategy of translation into Swedish is widely used in both groups. The results also show that the EML students have a higher awareness of alternative grammatical constructions that are grammatically correct. However, they also tend to overgeneralize the application of familiar rules when they do not recognize the structure. Their decisiveness is distinct whereas EO students display a higher degree of uncertainty.

Relating the results to the categorization of avoidance and achievement strategies, the tendency is that EML students use more achievement strategies than EO students. Students of English only heavily rely on the sound image; a strategy that tends to lead to both correct and incorrect results depending on the task at hand. Other achievement traits such as decisiveness and certainty are more clearly expressed by EML students.

For each sentence the primary strategy of EO is the sound image and for EML knowledge. Looking at the relation between strategy and efficiency, i.e. where the majority of students, 50% or higher, believe the sentence to be grammatically correct or incorrect, the following pattern is discerned:

<table>
<thead>
<tr>
<th>Label</th>
<th>Sentence</th>
<th>Is the majority of EO students correct?</th>
<th>Is the majority of EML students correct?</th>
<th>Is the sentence grammatically correct?</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Our neighbor wash her car every week</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>S2</td>
<td>Lisa didn't wanted to stay</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>S3</td>
<td>His coach suggests that he leave at once</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>S4</td>
<td>I looked at him as if he were a being from outer space</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>S5</td>
<td>Some students are cleverer than their teachers</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>S6</td>
<td>Ran the cat away?</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>S7</td>
<td>When I arrived, they were leaving</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>S8</td>
<td>They drive amazing carefully</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>S9</td>
<td>He said he left the house first which was absolutely correct</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>S10</td>
<td>Lisa gave he a book</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Figure 10 Grammaticality correctness EO and EML.

In numbers, there is no difference between the groups, that is, both EO and EML are correct in seven sentences and incorrect in three. However, it is interesting to see how the strategies work. The sound image generates a correct answer in S1 which is clearly incorrect, and a correct answer in S4 which is correct. The conclusion is that the majority of EO students disregard the basic rule in English of the third person singular –s. Hence, in both cases they do not pay attention to the fact that the verb does not agree with person. In one case, S1, it yields an incorrect answer, and in another it yields the correct answer. It may seem haphazard, and since the subjunctive form is less common than the indicative it may result in more mistakes. For the students of EML, the picture is different. They apply a rule which is familiar and well understood by the majority of students. The linguistic grammatical terminology is also more familiar to students of modern languages. In S1 it generates a correct answer, but when faced with an unfamiliar structure, they apply the rule which yields an incorrect answer in S4. The rule is consistently applied, which
would indicate that since the indicative is a more widely used form than the subjunctive, it would result in a higher correctness. Their interlanguage is also inconsistent which is clearer in the introspection. The subjunctive is a common form in other modern languages, but EML students still did not recognize this form in English.

From the survey, a comparative table of yes-answers on grammaticality is given. The answers sometimes vary distinctively between the two groups, as seen below:

![Comparison of Yes-answers on grammaticality](image)

**Table 4 Comparison of Yes-answers on grammaticality.**

It is noticeable how EO consistently displays a higher percentage than EML except for one sentence, viz. S6 dealing with word order. There are in particular three sentences that stand out, i.e. where the difference is significantly greater between the two groups, namely S1, S3, and S4. Of these three sentences only S1 is ungrammatical.

The introspection reveals the same pattern. The EO students do not use a linguistic metalanguage and heavily rely on the sound image. The willingness and/or ability to explain the grammatical features are significantly lower. ME2, ME4, and ME5 are all very decisive and fast in their decisions, and rely entirely on the sound image. There are only two students who stand out, namely FE1 and ME3. FE1 typically displays a great uncertainty and even though she tries other strategies such as translation, she often gets entangled in the semantics of the sentence, and is close to giving up. Her final decision is in all introspection sentences based on the sound image. ME3, on the other hand, is the only student that tries more than one strategy. He is elaborate and creative and uses both rules expressed in his own language, the sound image, translation, semantics, repetition, and question-answer strategies. He is persistent and typically returns to an unsolved problem before making his final decision. The strategy efficiency is similar to that of the survey; the sound image yields the correct answer in approximately half of the sentences.
The EML students, on the other hand, refer to grammatical rules either expressed in their own language or in a linguistic metalanguage, to a greater extent. Some of them use the sound image and translation is another common strategy. The same pattern as in the survey appears; they apply the rules they know consistently, but in unknown structures it generates an incorrect answer. In the introspection sentences the rules formulated in their own language are more efficient than in the survey. Again, all but one (MM5) typically uses one major strategy. Their certainty is clearer and hesitation is rare.

Similarly to the survey, the same can be said about avoidance and achievement strategies in relation to the introspection. EML students use grammar rules (when applied correctly) and translation (when structures are similar in source and target language) as achievement strategies. English only students use the sound image as their major strategy, and as mentioned before, it can be seen as both an avoidance and an achievement strategy. Because of its inconsistent nature the sound image strategy can be regarded as less reliable.

4.2 Strategies used in vocabulary

4.2.1 Survey

The survey consisted of nine words in context. The text was divided into three parts with three words each. Each word had four alternatives in Swedish of which only one could be chosen. After each three words there was a question regarding strategy usage where students could mark multiple strategies, but at least one. In addition, there was an open-ended question where students could specify their strategy usage and reasoning. The words are illustrated below (correct Swedish translation is marked in bold):

<table>
<thead>
<tr>
<th>No.</th>
<th>Word</th>
<th>Swedish alternatives</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1</td>
<td>ascent</td>
<td>nedstigning (descent), klättring (climb), klippa (rock), sluttning (slope)</td>
<td>I guessed, I knew</td>
</tr>
<tr>
<td>W2</td>
<td>altitude</td>
<td>luft (air), väder (weather), höjd (elevation), alternative (alternative)</td>
<td>Context, Compare to other languages, Pre-knowledge</td>
</tr>
<tr>
<td>W3</td>
<td>porters</td>
<td>vaktmästare (janitor), guide (guide), män (men), bärare (carrier)</td>
<td>Word-formation, Other</td>
</tr>
<tr>
<td>W4</td>
<td>crevasses</td>
<td>spricka (crack), sten (stone), stormby (squall), lavin (avalanche)</td>
<td></td>
</tr>
<tr>
<td>W5</td>
<td>ledge</td>
<td>hylla (shelf), sten (stone), hydda (cabin), gräsplätt (grassy plain)</td>
<td></td>
</tr>
<tr>
<td>W6</td>
<td>traversing</td>
<td>springa (run), korsa (cross), krypa (crawl), hoppa (jump)</td>
<td></td>
</tr>
<tr>
<td>W7</td>
<td>descend</td>
<td>gå upp (go up), gå ner (go down), gå över (go across), gå under (go under)</td>
<td></td>
</tr>
<tr>
<td>W8</td>
<td>bottleneck</td>
<td>halsbränna (heartburn), genomfart (passage), bit (piece), blockering (blockage)</td>
<td></td>
</tr>
<tr>
<td>W9</td>
<td>oxygen</td>
<td>luft (air), väte (hydrogen), syrgas (oxygen), syretryck (oxygen pressure)</td>
<td></td>
</tr>
</tbody>
</table>

Figure 11 Model of vocabulary, alternatives, and strategies.

The use of strategies shows how important the context is:
Table 5 Strategy usage unknown words.

It is clear that the students use context as their primary strategy. It is followed by guessing and knowledge, i.e. that they already knew the word in question. The strategies of comparing to other languages, using their pre-knowledge about the topic, and considering word-formation are not used to the same extent. What the strategy “Other” is based on is not specified by the students.

Judging from the comments many students use a combination of guessing, context, and pre-knowledge, for example, “for crevasses I guessed crack since I know that ice that moves can cause great cracks that are dangerous”. As common with multiple choice tests many students use the “exclusion-method” where they exclude certain words based on knowledge or other criteria “I could eliminate some of the alternatives since I knew their meaning in English, then there was only one alternative left”. Parallels or associations to other pre-knowledge are common as seen by this student: “bottleneck is often used in computer building and hardware where it refers to a part which is worse than all others and prevents the computer from getting an increased performance”. That context is crucial is seen by this remark: “for oxygen my first guess was air, but then I changed to oxygen since it said that it was in a canister”. Some students also used antonyms “ascent is the opposite of descent which I already knew”. It should be noted that comments were scarce and therefore no deeper analysis can be made of what constituted the basis for the strategies of guessing, context, comparison to other languages, or word-formation.

All of the above named strategies, except for guessing, can be regarded as achievement strategies. Guessing resembles the strategy of sound image in that it is inconsistent by nature and leads to both correct and incorrect solutions depending on the situation. An intelligent guess tends to be more successful than a non-intelligent guess, but this distinction is not captured in the survey. The comments disclose that guessing is used together with other strategies, which in that case makes it more of an achievement strategy. As with the grammar survey, avoidance strategies are not easily discerned since the students did not have the possibility to skip a word. Nevertheless, they had the option “Other” which can be seen as an avoidance strategy in some cases.

A clear majority (on average 72%) chose the correct word in all nine instances. Only two cases showed a bare majority, namely W1 and W8. For W1 28% of the students chose the alternative “nedstigning” (Eng. descent) and for W8 33% of the students picked the Swedish word “genomfart” (Eng. passage). Otherwise the other alternatives attracted only a small percentage.
This shows that the major strategies of context, guessing, and knowledge are highly efficient. The data does not allow for a deeper analysis of the combination of strategies by one single user, and therefore nothing can be said regarding the most efficient combination of strategies. The introspection will provide a more detailed analysis.

4.2.2 Introspection

The introspection regarding unknown words in context consisted of four English words in a short extract that the students were asked to reason about. The criteria for the selected lexical items are specified in section 3.2.2. The text with the selected vocabulary (bold) is seen below:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Introspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>FE1</td>
<td>In the sentence it seems as though…uh, that they picked him up from… well, they kind of, from the sea… so we take him up</td>
</tr>
<tr>
<td>FM4</td>
<td>Uhm, a human plucked from sea level and dropped, the human, plucked from the sea level and dropped on the summit, aha! So it is taken from sea level directly to that height…, so plucked is taken, moved</td>
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</table>

A human **PLUCKED** from sea level and dropped on the summit of Everest would lose consciousness within minutes and quickly die. A well-acclimatized climber can function at that altitude with supplemental oxygen—but not well, and not for long. The body becomes far more vulnerable to **PULMONARY** and cerebral edema, hypothermia, **FROSTBITE**. Each member of our team was carrying two orange, seven-pound oxygen bottles. A third bottle would be waiting for each of us at the South Summit on our **DESCENT**, stashed there by Sherpas. At a conservative flow rate of two liters per minute, each bottle would last between five and six hours. By 4 or 5 P.M., about 18 hours after starting to climb, everyone’s gas would be gone.

As opposed to the survey the informants were not given any alternatives in Swedish. Hence, they were to reason aloud about the meaning of the words trying to offer a suggestion for each of the words. Here the strategies were numerous and they varied greatly. Translation and repetition are frequent as is context and understanding of topic, pre-knowledge. Guessing is the last resort when uncertainty prevails. Sometimes uncertainty results in giving up where not even a guess is provided.

First, there was great variation in how students tackled the situation. Some started by reading the whole extract in one piece, some read only the sentence in which the word occurred, and some focused on a single word in a seemingly random order. Second, translation and context were by far the most common strategies, when they could not refer to knowledge. Typically they started repeating the sentence and the word, and then they translated the sentence parts surrounding the particular word. Translation was never applied to the whole extract. Thirdly, only two students associated words with other familiar contexts. Lastly, a learner’s style in terms of confidence, certainty, decisiveness, and risk-taking emerges clearly.

For the first word “plucked” context is most commonly used, as seen below:

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Plucked, it has to be that you are picked up in some way, // you took someone from the ground, that sea, and yes, drop him at the highest point, yes, Everest…

Context is clearly helping some students whereas others disregard the logical clues:

ME4
I guess that someone is falling down or something like that… taken down to, I have no idea…

ME5
Plucked, no idea of what that means, but considering everything else I guess it is falling or something like that, well, I move on to the next

FM3
A man from sea level, plucked must be…a man from sea level and dropped from something, Everest, someone who jumps, plucked must be falling, jumping, something…

Here the context is not considered and despite the fact that FM3 refers to the sea level she interprets the phrase “from sea level” as being a postmodifier to “the man” even though the verb phrase appears in between. ME4 and ME5 express their uncertainty and do not bother to check whether it is plausible or not. They hurriedly move on to the next word. One student gets entangled in a word class classification problem:

FM1
Mm, I have no idea about this word, I have never seen it before, plucked, it is… not a noun, I have no idea about this, I can't even think about something that I've heard… a human… a human… it isn’t, well, it isn’t, plucked, plucked, oh, it’s an adjective, an adjective it is, no, I think I'll skip it for now because I have really no idea // plucked, I have no idea, plucked, from sea level, no, I really have no idea, from sea level, what I don’t get is if it’s an adjective or a noun, but it isn’t a noun, it’s an adjective, but then it doesn’t go with…, no, it’s “a” in front of it so it has to be a noun, but they do not end with –ed, do they? A human plucked, no, I don’t know

Again, one student, ME3, shows his creativity and ability to associate and draw parallels:

ME3
I’m not so familiar with this particular form of the word, but I guess it’s very similar to plocka (Swedish pluck), it’s Swedish, but I don’t think that there is any connection… I still think that it means that you take it from the sea level and just puts it on Everest, plucked, plucked is when, well it sounds…., I connect it with when you pluck feathers from a chicken, and then you take away all the feathers so you take the human and put him on the mountain, yes, that’s it

Of all the four words “pulmonary” caused the most frustration. Some students used the context and the listing of other types of diseases and injuries as clues, but all but two students could not say whether it was an internal or external disorder. The most-used clue was the word “vulnerable” preceding the current word.

ME4
Pulmonary, I don’t know what that is, I guess it’s some kind of disease, because there is a number of other diseases following it

FM1
Pulmonary, it’s some bodily physics, well, something that the body is exposed to
One female, FM4, reacts to the form of the word and compares it to the Swedish word “plommon” (Eng. plums), but adds that it does not make sense in the context. MM5 and ME3 elaborate their reasoning:

MM5

I’ve heard it before, I think it had something to do with, well, some kind of injury or disease, something related to hospital…, // cerebral is brain and so pulmonary has to be inside the body, but what is the big question, maybe it has to do with arteries, I think, yes, I think I recognize pulmonary artery, so, yes!, it is the big artery that goes to the brain, mm, maybe…

And ME3 reasons along the same lines:

ME3

Pulmonary is not a word I’ve heard before except in TV-series in fact, I’ve seen House (not. medical series) and they use that word a lot, I don’t know what it means in Swedish, but I connect it with some kind of tumor or some defect inside the body, // pulmonary is some kind of disease, well, not disease, symptoms… no

The term “frostbite” seemed to cause the least problems to the informants. A common strategy was to literally translate the two separate words “frost” and “bite” into a Swedish compound. Everyone associated the term with great cold and several of them could describe what happened to the body when suffering from frost bite, for example, “it’s when the fingers become black and fall off”, so called circumlocution, and the majority knew the correct term in Swedish.

ME3

Frostbite, I’ve heard it many times before, it is… I don’t know what it’s called…, but it’s when a body part is really cold and you run the risk of amputating that part, no blood flow

The word “descent” was the second word after “pulmonary” to attract the most extensive reasoning. Strategies such as context, pre-knowledge, and translation were used. Many suggestions concerned journey, goal or destination, and camp.

FE1

Descent since it’s the South summit, it sounds as if they are on their way down…, they are on their way from something // it’s mostly because it’s about Everest, a mountain and a climber…

FM2

A third bottle or canister was waiting for us at the South summit of our goal, I think

ME4

I think it is where you are supposed to go, well, a camp or something and they are supposed to go there

ME5

Our goal, to where we are heading, it’s like a resting place or something

ME2

South summit on our descent…, I think it’s some kind of journey…

Again, ME3 and MM5 are most elaborate and creative:

ME3

Descent is also a word I’ve heard before, but I can’t remember where…, it’s going down from the top of the mountain to the bottom of the mountain… uhm, descent, ah! It’s a game I’ve played called Amnesia Dark Descent and it’s about how you go deeper into the darkness // so now I connect it kind of, Amnesia
Dark Descent… the whole text is about a human who is dropped on the summit of Everest and then is going down

I actually have a movie I think that’s called The Descent or something like that, and it’s about going down, going down from something

While the majority of informants try to suggest a meaning for each single word, some of them are hesitant and sometimes give up on the word altogether:

The third bottle would be waiting for each, for each of us on the South summit on our descent, have never heard it before, uh..., something would be waiting for us, no, that oxygen bottle would be waiting somewhere on our something, stashed there by…, hm, I have no clue about this word either, it’s difficult to say from the context too // descend, descent, hm, no, not what I can think of right now, descends, nooo,

Well, I don’t have a clue about what pulmonary is, never heard the word before

Well, vulnerable to pulmonary //pulmonary, feels like I don’t know it really, the body is more vulnerable to… to…. I really don’t have a clue as to what it is

It is reasonable to say that some students are more likely to use achievement strategies whereas others have a tendency to use more avoidance strategies. Achievement strategies are here exemplified by circumlocution, associations, the use of context and logical clues, and translation. These students are also characterized by willingness to solve the problem and risk-taking. Avoidance strategies are here seen as avoiding the word altogether without guessing or providing a suggestion. These students are not only characterized by hesitation and uncertainty, but also by impatience and indifference to context, pre-knowledge, and the concept of plausibility.

4.2.3 Comparison between EO and EML

A comparison of the use of strategies regarding vocabulary between the two groups will be made. As explained earlier, students of solely English are referred to as English Only, EO, and students of English and other modern languages are named English Modern Language, EML. First a comparison of the survey is presented followed by a comparison of the introspection.

In the survey there are clear differences in the use of strategies between the two groups:
EML uses context as its primary strategy followed by guessing, knowledge, comparing to other languages, pre-knowledge, word-formation, and other. EO also uses context as its primary strategy, but the difference to the second and third most-used strategy, guessing and knowledge respectively, is insignificant. Pre-knowledge appears in fourth place followed by word-formation, other, and lastly, comparing to other languages. What type of strategies are included in the alternative “Other” is not specified by the students. The fact that the strategy comparing to other languages is used as the last strategy for EO is not surprising as this strategy assumes knowledge of other languages besides their mother tongue. However, it is interesting to see that students who only study English and no other modern language does not use context to a greater extent. Moreover, the comments for each group are too scarce to be analyzed further.

In relation to correct answers the groups show the following differences:

The only significant differences are W1 and W9, where a majority in EO suggests “nedstigning” (Eng. descent) and “luft” (Eng. air) respectively.
The introspection concerning unknown words reveals that in both groups translation is the most commonly used strategy. Some also use translation in combination with context, but context is more commonly referred to in EML. Repetition and circumlocution are used in both groups whereas non-linguistic clues are more used in EML than in EO. Two of the students, one in each group, show typical avoidance behavior in that they give up without suggesting a meaning to the particular word. One student in EML refers to word-formation and another in EML compares the word with another language. Only two students, one in each group, stand out in that they typically use more than two strategies whereof one significant and efficient strategy is that of association. At the individual level the differences are not as distinct as in the survey; rather the individuals show a spectrum of strategies as well as inconsistencies in their interlanguage. The only clear tendency can be said to be that students in EO do not use context as elaborately as the students in EML. Therefore they do not make use of logical clues to the same extent either.

4.3 Individual compensation strategies

The introspection allows for mapping strategy tendencies at the individual level. Below follows a description of each of the ten informants taking part in the introspection.

FE1 displays an uncertainty concerning both grammar and vocabulary in that she shows typical avoidance behavior. She is hesitant to provide an answer and uses lots of stalling and hesitation devices. When she does answer she signals her uncertainty by adding uncertainty markers such as “I’m not sure”, “I think”, etc. Her tendency is to use one single strategy, for grammar the sound image and for vocabulary translation. In both she has a tendency to get entangled in the semantics of the sentence which makes her more confused than certain.

ME2 shows a decisive certainty in his answers and does not think twice about his decisions. He is fast in making his decision and disregards most linguistic and non-linguistic clues. For grammar he heavily relies on the sound image and for vocabulary, although he uses repetition, he quickly gives up either by not providing a suggestion or simply by making non-intelligent guesses as described by Oxford (1990, 19).

ME3 is the most elaborate and creative informant with respect to both grammar and vocabulary. For grammar he uses his own linguistic metalanguage, the sound image, question-answer strategy, repetition, and sentence semantics. For vocabulary he uses translation, context, associations/parallels, repetition, comparison to other languages, pre-knowledge, and logical clues. He is determined to provide a solution and clearly shows his frustration when he is not successful as with the word “pulmonary” which he returns to several times. He is not afraid of taking risks and shows typical achievement behavior.

ME4 displays a willingness to find a solution, but does not spend more time than he thinks necessary, thus disregarding context and clues, especially with regards to vocabulary. For grammar he relies on the sound image even if attempts to explain rules in his own language are initiated, but not completed. For vocabulary he uses circumlocution and some context to reach his decisions, but not consistently.

ME5 displays the same characteristics as ME4 and is also eager to provide a solution both for grammar and vocabulary. His only strategy for grammar is the sound image, whereas he tries to use translation, circumlocution, and context for the unknown words. However, he is not consistent in his usage throughout the text and makes non-intelligent guesses disregarding the existing clues. He is also making fast decisions and moves on once a decision is reached without further ado.
FM1 displays a consistent strategy usage both for grammar and vocabulary. However, while her certainty is decisive with respect to grammar, it is equally indecisive with respect to vocabulary. She uses a correct linguistic metalanguage when dealing with grammaticality and provides both the rule and the correct answer. Nevertheless, her vast knowledge of grammatical forms and functions limits her ability to use other strategies in context. Hence, when faced with unknown words in a coherent piece of text she becomes entangled in a word class classification problem. When she is not successful in deciding the proper word class she gives up, which results in her not providing a solution at all. She tries translation, but does not reflect on the context or on the plausibility of her guesses.

FM2 also shows a consistent usage of strategies. Regarding grammar she shows a correct usage of a linguistic metalanguage in combination with translation. Furthermore, the translation strategy is also widely used when dealing with unknown words in context. She makes use of the contextual clues and offers a solution to every word. It is clear that her primary strategy is that of translation which she applies to both grammar and vocabulary.

FM3 tries different strategies, but while they are successful concerning grammar, they are less successful when dealing with unknown words. For grammar she uses both the sound image and a correct linguistic metalanguage with certainty. On the contrary, when using translation as the primary strategy for unknown words she becomes uncertain and hesitant. She does not attempt to use context or other clues in the text and offers non-intelligent guesses for all four words. She is satisfied with her answers and does not try to re-evaluate or reflect on plausibility.

FM4 displays similar strategy usage for both grammar and vocabulary. For grammar she heavily relies on the sound image even if certain attempts to explain the rules in her own language are made. The attempts are quickly abandoned before being completed. When exposed to unknown words her enthusiasm is evident and generates lengthy discussions about each word using translation, some context, and repetition. Her eagerness to provide a solution sometimes results in far-fetched guesses, for example, her notion that the word “pulmonary” shows resemblance to the Swedish word “plommon” (Eng. plum), but she cannot link the meaning to the context. She does not use contextual clues.

MM5 is characterized by certainty and associations. He is next to ME3 the most elaborate and creative informant. The sound image, rephrasing, and own linguistic rules are the primary strategies for dealing with grammaticality. He is also enthusiastic and certain when coming up with new formulations, for example, for the last grammatical sentence, IG5, he offers the following solution “we gave them a present” and his comment is “that sounded really good I think!”. He provides a correct version for each sentence where applicable. When dealing with unknown words he uses mainly associations, some translation, and context. His suggestions are correct for three out of four words, and he is the one who comes the closest to the meaning for pulmonary. His reasoning is characterized by clarity, brevity, and straightforwardness.

It is clear that a learner has his or her personal preferences and attributes regarding strategy usage, which have developed over the years. It is also evident that some strategies and use of strategies are more successful than others. Personal traits such as eagerness, willingness, and enthusiasm are contributing to strategy success as is confidence, persistence, and risk-taking. It is interesting to see that some strategies are successful in one area, but less successful in another.
5. Discussion

Strategies are clearly an important part of language learning and communicative competence as seen in recent research, in projects on language awareness, in relation to learner autonomy, and in terms of language flexibility. This view is confirmed by CEFR (2001) and is mirrored in the outline of the language syllabi in the Swedish school system. Even though the field has not agreed on a definition of the term strategy or on a classification of learning and communication strategies, some features are acknowledged by the majority of the field. These common denominators are that there is a distinction between learning and communication strategies, that communication or compensation strategies can be categorized as either achievement or avoidance strategies, and that strategies can be taught.

5.1 Compensation strategies in English as a foreign language

The results of this study confirm that students make use of various strategies and that the types of strategies depend on the task at hand as stipulated by the CEFR (2001, 15-16). Moreover, the results confirm that some strategies are more successful than others. Next, the study reveals that learners typically use only one strategy as their primary preference. Hence, strategy use also varies depending on individual learner preferences (Ellis 1994, 532-533). Furthermore, the surveys and the introspections reveal that certain strategies can be categorized as avoidance strategies in that they may result in a reduced understanding or avoidance of the problem altogether. However, the study also shows that certain strategies can be categorized as achievement strategies since they tend to result in a more successful comprehension of the problem at hand, be it a grammatical feature or an unknown word. Hence, there is a reason to divide reception strategies into achievement and avoidance strategies; similar to production and interactional strategies as described by CEFR (Council of Europe 2001) and Brown (2007). This classification shows that Corder’s understanding of communicative strategies is equally applicable to receptive abilities (1981). As mentioned earlier, the types of strategies depend on the task at hand; subsequently, the strategies vary for grammar and vocabulary.

Regarding grammar, this study shows that certain strategies overlap with strategies used for unknown words. These observed strategies can also be characterized as achievement or avoidance strategies. Accordingly, it is reasonable to say that the taxonomies in section 2.2 can also be applied to the strategies learners use to bridge gaps in grammatical knowledge as doubted by Ellis (1994). Achievement strategies are, for example, knowledge, linguistic rules expressed in own language, linguistic metalanguage if applied correctly, translation if structures in the target language are similar to that of the mother language, and comparison to the mother tongue. Here comparisons to the mother tongue are suitable since both English and Swedish belong to the Germanic language family. Problems may arise when comparing to languages of a radically different structure. Avoidance strategies are, for example, the sound image and sometimes the semantics of the sentence. The sound image seems inconsistent and less reliable by nature since its efficiency varies greatly. However, it should be noted that the students find the sound image a better alternative than guessing which means that this strategy is more complex. Further research into implicit learning is required to account for the strategy of sound image in deeper detail. The study also confirms that there is no clear-cut boundary between achievement and avoidance strategies. The decisive factor is how and on what the strategy is applied. This is exemplified by a linguistic metalanguage and translation. Classification conflicts are inevitable as pointed out by Oxford (1990, 22).

Regarding unknown words in context, it is clear that learners use context and knowledge of the world, i.e. linguistic and non-linguistic cues, which are defined by CEFR (2001, 72) as belonging to reception strategies, in this case reading. Achievement strategies are, for example, context,
intelligent guessing (Oxford 1990, 19), knowledge, comparison to other languages, pre-
knowledge, word-formation, translation, circumlocution, antonyms, and associations. Tarone’s
use of the term paraphrase can be said to overlap with circumlocution (1977, 197). Literal
translation as explained by Dörnyei (1995, 58), is, for example, applied to the compound
“frostbite” where several informants in the introspection translated each component lexical item
into Swedish. Avoidance strategies are, for example, non-intelligent guessing and complete
avoidance of the problem. At the individual level risk-taking and risk-avoidance behavior became
clearer where risk-taking informants are characterized by persistence, creativity, ambition, and
willingness. Risk-avoidance behavior is portrayed by hesitation, uncertainty, impatience, and
indifference to plausibility. This kind of behavior is already observed by Corder (1981) who
names the strategies as risk-taking and risk-avoidance accordingly. Færch & Kasper (1983) reason
along the same lines, but focus on the behavior, which is the basis for their psycholinguistic
approach. These terms, risk-taking and risk-avoidance, correspond to achievement and avoidance
strategies respectively, as commonly used by the field today. However, it seems reasonable to
make a distinction between behavior and strategies since a learner can show risk-taking behavior
at the same time as avoidance strategies are used. For example, in this study ME4 and FM4 tend
to have this profile, especially in relation to unknown words.

Furthermore, it should also be pointed out that the major results in this study are similar to the
results seen in the STRIMS project (Malmberg 2000). First, a learner finds his or her own
methods of solving problems and if no attempts are made to change those methods, it is likely
that the learner continues using the same kind of strategies. In this study the informants show a
typical kind of strategy and behavior for both grammar and vocabulary. Second, some learners
are capable of finding efficient strategies, such as ME3 and MM5 in the present study, but to the
majority of learners strategy training is vital in order to develop their language learning. Third, it
is seen that learners who exhibit a wider and more elaborate strategy usage have a greater
possibility to become more successful learners. This is again confirmed by ME3 and MM5 who
to a greater extent reach a correct solution with regards to both grammar and unknown words.
Further, the STRIMS informants show great variation in their interlanguage as do the informants
of this study. The rules are inconsistently applied for grammatical problems and context is
inconsistently used for unknown vocabulary.

To elaborate on the proposed classification for strategies described in section 2.7, compensation
strategies are superordinate to receptive strategies, which in turn are superordinate to
achievement and avoidance strategies. This classification can be applied to strategies used to
solve both lexical and grammatical gaps. Further, strategies are highly dependent on the task at
hand and may vary in efficiency depending on context and user. This study does not propose to
give a deeper analysis of behavior, but observations have been made which imply that it may be
reasonable to distinguish behavior from strategy usage, where behavior also can be characterized
as either risk-taking or risk-avoidance behavior.

5.2 Comparative results

Furthermore, the present study shows that there are differences in usage and types of strategies
between students who exclusively study English and those that study at least one other modern
language apart from English. Students who only study English typically use less reliable strategies
such as sound image and guessing, whereas students of modern languages tend to use more
reliable strategies such as linguistic rules and context. Reliable strategies refer to those strategies
that tend to yield a more correct result. In terms of efficiency certain tendencies can be seen at
the individual level.
It is clear that the difference between the two groups is greater when it comes to grammar than to vocabulary and unknown words. EML students use a linguistic metalanguage when discussing grammar, which is not seen in EO. This may be a consequence of the fact that grammar and grammatical terms are more widely used in modern language teaching than in English teaching. Reasons for this difference can be that teaching in modern languages is more traditional with a greater focus on grammar and related terminology. In addition, the language course plans for upper secondary school from year 2000 have a greater focus on communication, which have lead to a shift of focus from grammar to communication, above all in English teaching. The notion of grammar is also dependent on the language taught. More reflective languages such as Spanish, French, and German tend to have a greater focus on grammar than a more non-reflective language such as English (Hedström 2001, 71). English teaching today also tends to be more content-oriented than form-oriented; similar to the teaching of a native language. This is made possible by the fact that Swedish students have a higher language proficiency in English whereas modern language teaching reveals more characteristics of foreign language teaching at the upper secondary school level. In addition, text books of English rarely include grammatical sections as do text books of other modern languages. Students of other modern languages also explain grammatical rules in their own language to a greater extent than students of solely English. They also display greater language awareness in that they provide alternative correct grammatical solutions.

Regarding unknown vocabulary, students of other modern languages use context to a greater extent than students of exclusively English. It seems as though the latter group uses context, guessing, and knowledge more or less equally. This is interesting since the syllabus for English stresses reading and strategies in the same way as the syllabi for modern languages as seen in section 2.4. The reasons for this are not examined here, but it is plausible to say that students of other modern languages are more exposed to unknown texts and may therefore be more used to reading and using the clues that the context provides. It is not uncommon in modern language teaching to give students texts in the target language, which they then have to work with thoroughly to understand. In English classes the proficiency level is generally higher which means that a text is not thoroughly worked through in the same way and students can then look up the words they do not understand specifically since the gist of the text is generally understood without having the exact meaning of each individual word. This is not always the case in other modern languages. Posing that this is more a rule than an exception in language teaching at the schools participating in this study, students of modern languages are more used to work with top-down strategies whereas students of only English may be more accustomed to bottom-up strategies, as discussed in section 2.3.

In addition, not only do students of other modern languages use more achievement strategies, they also show a clearer risk-taking behavior. They tend to express a higher degree of certainty, a greater willingness to try different solutions, and a stronger perseverance to provide an answer. Risk-taking behavior is also seen in the other group, but it is more characterized by over-assertiveness, impatience, and a more rigid opinion. Since these traits are closely related to individual learners and learner styles no analysis can be made as to why. At the same time, students of both groups show inconsistency in their interlanguage as well as their behavior.

Despite the bias that students of modern languages are assumed to be more interested in languages and may therefore show higher language proficiency and awareness, the results point to several areas of improvement for both groups. Hence, both groups can become more aware of

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9 Personal communication. These views were expressed by eight teachers of English and five teachers of modern languages (Spanish, French, Italian, and German) in informal discussions during my teacher training 2010-2011.

10 Based on a comparison of four text books respectively in Spanish Level 4 and second year English at upper secondary school.
how strategies work, what types of strategies there are, and how they can be used in various contexts, both inside and outside the classroom.

### 5.3 Implications for teaching

Many of these compensation strategies have always, consciously or unconsciously, been included in language teaching and used by learners. However, they are now more formalized and have received more attention, both in recent research and in the Swedish course syllabi, and as such have gained more importance. A terminology has developed which allows for reflections and discussions about their use and efficiency. This facilitates both teaching and learning. As much influential research has stipulated, especially the CEFR (2001), strategies can be taught in relation to the four skills. These are known to the learners and make strategy training practical and useful; a condition stressed by Oxford (1990).

In addition, the usage of strategies is closely connected to a learner’s behavior where a distinction between risk-taking and risk-avoidance is discerned. Since these characteristics are learner-specific and may have other causes than merely language-related, the teacher should focus on the benefits of achievement strategies, which from a long term perspective hopefully will lead to increased confidence and risk-taking in the target language, both inside and outside the classroom. This may, in turn, increase language awareness, language flexibility, and learner autonomy; crucial concepts in language teaching and learning.

Overall, the results in this study clearly show that language learners have developed their own strategies over the years. Moreover, it is evident that the majority of learners make use of one or two different strategies and that their strategy usage is inconsistent and dependent on the task at hand. The informants also show that certain strategies can cause problems when faced with a problem of a different nature. It is therefore vital for language teachers to make learners aware of their strategy usage and show them how they can develop different strategies and how they can make use of them in various contexts. It is reasonable to say that achievement strategies should be encouraged. The probability in reaching a satisfactory solution increases with the use of achievement strategies and, above all, with the use of more than one strategy. Teachers should make learners aware of their inconsistency in interlanguage and in application of strategies in order to make strategies conscious to the learner, i.e. consciousness training (Oxford 1990 202), as discussed in section 2.3. This study has also revealed that compensation strategies can be equally applied to grammar as well as vocabulary.

Furthermore, language teaching should, considering the growing importance of strategies, include an overview of the major distinction between learning and communication or compensation strategies, even though the Swedish course syllabi for languages have a clear focus on the latter. Both types of strategies should be accounted for and learners should be aware of the fact that there are both successful and less successful strategies of both types. Moreover, learners should be made aware of the fact that strategies can be both of an interactional and non-interactional nature. This fact is clearly stated in present and, but above all, future subject syllabi.

Next, when it comes to teaching, it is first vital to make students aware of the difference between avoidance and achievement strategies. Teachers should encourage achievement strategies and show students in which ways they are beneficial. Second, teachers could explain and exemplify the various types of strategies in relation to the four skills and show their efficiency. Experiments where students are asked to reflect and discuss their strategy usage seem an effective way of increasing language awareness and learner autonomy (Tornberg 2009; Malmberg 2000). Thirdly, teachers should encourage students to use more strategies than they do arguing that more strategies result in more efficient problem solving both inside and outside the classroom.
their linguistic knowledge is insufficient. Lastly, strategies can be elaborated, and it is pertinent for the students to understand that strategies are not a fixed set, but rather a dynamic phenomenon which is under constant development and evaluation. Wenden (1987, 7-8) is aware of this as she defines strategies and behaviors as amenable to change. It is vital that students learn on what occasions they should use the various strategies. In this way, they benefit from learning how to monitor and evaluate their own performance (Oxford 1990, 203).

Several useful classifications can be brought to the classroom (Tornberg 2009). Poulisse’s (1989) classification into conceptual and linguistic strategies is lucid and manageable. Corder’s (1981) classification is also suitable for pedagogical reasons. Parallels can be drawn to students’ native language. This would be highly interesting since there are many non-native Swedish students in Swedish classrooms today.

Further, it is important that students understand that strategies contribute to more efficient language use and thus higher language proficiency. However, it must be stressed that strategies are not to be seen as “short cuts” when linguistic ability is insufficient, but rather as an effective tool to enhance linguistic competence. This may prove a challenge to language teachers when teaching compensation strategies in particular; to show learners that strategy usage is not only a short-term tool in an immediate situation, but also a long-term tool that may enrich learning. For a better understanding of what implications this might have for teaching, we must await more research into the field (Ellis 1994, 403), as discussed in section 2.3.

One interesting comment directed towards language teachers is made in the first survey regarding grammaticality:

That thing what different word classes are called, I think that teachers should try to repeat a bit more. It took a looooong time until I understood what the present, imperfect, perfect, etc. meant. There are still loads that I don’t know! It’s something that teachers take for granted that you should know since they write the word class names on the whiteboard before every exposition.

This message signals that language teachers have to be more aware of how they use their linguistic metalanguage. Several comments confirm this view among the informants. To assume that students are familiar with common concepts can prove a source of repeated mistakes in the long term perspective. To use language that students have formulated on their own seems a better solution based on the result in this study where the majority of students in modern languages apart from English explained grammatical phenomena in their own words.

It may also seem daunting to language teachers that the primary strategy of deciding whether a sentence is grammatically correct or not is by the sound image, i.e. that the students rely on how it sounds. It makes a language teacher wonder what the use of all those grammar lessons really leads to. However, the sound image does not always render incorrect results as shown in this study. Awaiting research into implicit learning teachers can encourage their students to use more strategies in combination with the sound image. The most efficient strategy concerning grammar seems to be rules explained in their own language. Inductive methods seem a beneficial way of reaching such descriptive rules (Tornberg 2009). Similarly, it is equally important to make learners aware of the context when dealing with texts so that they can make use of both linguistic and non-linguistic clues when encountering unknown words. Top-down strategies should be encouraged and practised.

Lastly, the differences between the two groups in this study reveal that there are differences in teaching English as opposed to other modern languages at these two schools in Sweden both regarding grammar and vocabulary. The reasons concerning grammar may be that modern languages are taught more traditionally, based on their reflective nature as well as their focus on
both form and function. However, teachers of English can still work with grammar with a higher syntactic than morphological focus, thus highlighting the building blocks of grammatical constructions. The reasons for the differences regarding unknown vocabulary may be that top-down strategies are widely used when studying new texts in other modern languages, whereas English texts are approached with more bottom-up strategies. Nevertheless, teachers and students of English may also profit by teaching and learning more top-down strategies.

5.4 Methodology

The methods used yielded interesting results, but there are a few discrepancies, which may have affected the result. Other circumstances may have generated a slightly different result.

First, the selection of students can be said to be biased since students at vocational programs are not represented in this study. However, to include such students would have proved difficult because at these programs it is optional to study English B, that is, second year English. Those students would have constituted a biased corpus since students who make such an active choice are more likely to be more interested in languages to start with and as such may display a higher language awareness and proficiency. The same bias can be applied to the two comparative groups included in this study. Further, the selection of the students for the introspection study could have been randomly picked in both groups, but then the spread of proficiencies would not have been guaranteed. Moreover, the results might have been different if the informants of modern languages had represented a wider spread of languages than merely Spanish. Even though students of French, German, and Italian were asked to participate there were no volunteers. It would have been more difficult to assure a balanced spread of proficiencies if students had come from different classes.

Second, the limitation regarding the surveys is that it would have been desirable to have numbers relating a specific answer with a specific strategy, for example, to examine whether those who have answered incorrectly use a certain strategy more than any other. However, since the survey was anonymous and the analysis tool at the individual level was not available, this was not possible to achieve. Neither did it allow for an analysis of a combination of strategies. Also, due to the falling off in the surveys it may be argued that the same students did not participate in both surveys. At the same time, the survey was available to the same student body and language-wise they had the same possibility to participate. Ideally, the data collection should have been supervised, but the study shows that the falling-off was greater at the smaller school where the survey was in fact supervised. In addition, open questions should have been used to a greater extent, but then it would have been difficult to collect and analyse that amount of data. On the other hand, judging from the comments in this survey there is no guarantee that students would have provided more interesting answers if the open questions were compulsory. There is a risk that the unmotivated and uninterested students would have made nonsense remarks.

Thirdly, the informants of the introspection study may have been influenced by the fact that I was present during the process. This may affect their willingness to provide answers that they think I would like to hear or an unwillingness to provide an answer, that is, they would rather give up than make a mistake in front of me. On the other hand, since it was the first time they performed an introspection it would have been difficult to leave them alone with a recorder. Ideally, the method to think aloud and be recorded should have been practised beforehand in order to decrease nervousness and unfamiliarity with the method.

On the whole, both the surveys and the introspections served the purpose well and even though no generalizations can be made the results contribute to display clear tendencies, and as such the methods must be said to comply with the aims of this study.
6. Conclusion

To conclude, this study has mapped various compensation strategies as used by students in immediate receptive situations both in relation to grammar and vocabulary. A comparison between two groups of students has been made to examine whether students of at least one other language besides English make use of their extra-linguistic knowledge and training when solving linguistic problems in English. Lastly, this study has discussed what implications these findings may have for language teachers, especially considering the new subject syllabi taking effect in Sweden from the fall of 2011.

Although the data is insufficient for making generalizations certain tendencies are noted regarding the usage of compensation strategies in immediate receptive situations. Learners typically use one major strategy dependent on the task at hand and they are typically inconsistent in their usage of strategies, which reflects the inconsistency of their interlanguage. Learner properties may also affect the behavior in taking risks or not. Further, certain types of compensation strategies can be said to be more successful than others, i.e. they tend to achieve a result instead of avoiding one. In this study, learners of English only tend to use less reliable strategies whereas learners of other modern languages tend to use more reliable strategies. Moreover, learners of modern languages show a tendency to be not only more aware of a linguistic metalanguage, but they also tend to formulate linguistic phenomena in their own words to a larger extent. Lastly, learners of modern languages tend to pay more attention to context and contextual clues when faced with a text with unknown words.

Therefore, what teachers can learn from this study is primarily that those students who do not use strategies in an effective way may benefit from becoming aware of what strategies there are and how they can be applied. Further, students who have developed effective strategies can also benefit from refining their strategy usage in various contexts. It is therefore crucial that students realize that strategies vary depending on context and that some strategies are more useful than others. The students should be made aware that the use of more than one strategy is preferable. To reach success in strategy training it would be an advantage if teachers pay attention to mapping each individual’s strategies in relation to the four skills and then make students aware of other strategies. From the results in this study it is reasonable to say that English teaching should focus more on grammatical structures and even though it cannot be deemed necessary to learn a linguistic metalanguage, it is still vital that students are able to formulate structures and phenomena in their own words and apply these to relevant contexts. Moreover, it can be argued that English teaching should focus more on top-down strategies when reading and dealing with unknown words in context so that students can make use of contextual clues. Students should learn that both linguistic and non-linguistic knowledge contribute to a greater understanding and higher language proficiency. Strategy training can be in relation to certain skills such as grammar and vocabulary or emphasized in relation to the four skills of reading, listening, speaking, and writing.

Moreover, this study has showed that a classification of compensation strategies into achievement and avoidance strategies is equally applicable to receptive skills. It also shows that strategies are applied to both grammatical and lexical issues. Introspection also reveals that there is a difference in risk-taking and risk-avoidance behavior, and that behavior and use of strategies do not always correspond.

To amend the questions not answered by this study the following must be investigated: First, to account for achievement and avoidance strategies in the survey it must allow for individual answers and analysis, which would not only unveil strategy usage, but also combinations of strategies and their efficiency and reliability. Secondly, to account for a deeper analysis of the
strategy of guessing a more detailed answer is desirable, and thirdly, more comments are needed in order to analyze the strategies applied to unknown words.

Finally, suggestions for future work include a number of issues. First, interactional strategies should also be mapped. Interaction with others has two advantages; both what they can learn from each other and then apply when on their own, and how they can help each other while in a conversation or other situation where communication halts. Second, a mapping of strategies should include all four skills, i.e. not only reading, but also listening, writing, and speaking. This would allow for a more complete picture of the usage of compensation strategies, not only at the group level, but also at the individual level. Third, students on vocational programs should be included to complete the picture at the upper secondary school. Fourth, in a major project including a longitudinal study with the same students it would be interesting to examine how strategies develop. Results may be useful in order to learn to what extent knowledge of the mother tongue influences strategy usage. It would be equally useful to see how much age and maturity count, and how strategy training contributes to the development, although it can be difficult to measure. Fifth, a major study should include a comparative study of the teaching of English as opposed to modern languages. One objective would be to examine how different approaches can benefit from each other. Such a comparative study should also consider teachers’ views on strategies and strategy training. Sixth, strategy usage would benefit from a deeper and more comprehensive study with students with non-Swedish backgrounds to see if their use of strategies differs. Regarding the sound image strategy, we have to await further research into the field of implicit learning.

All the above proposals would benefit from attempting to map successful and unsuccessful strategies related to context. Combinations of strategies could also be examined and the strategies observed could be analyzed further to see what are reliable and less reliable strategies.
List of Abbreviations

Comparative Groups
EO        English Only
EML       English Modern Language

Survey Sentences Grammaticality
S1        Our neighbor wash her car every week
S2        Lisa didn't wanted to stay
S3        His coach suggests that he leave at once
S4        I looked at him as if he were a being from outer space
S5        Some students are cleverer than their teachers
S6        Ran the car away?
S7        When I arrived, they were leaving
S8        They drive amazing carefully
S9        He said he left the house first which was absolutely correct
S10       Lisa gave he a book

Survey Options Grammaticality
O1        I guessed
O2        I knew because we have talked about it
O3        It sounded right/wrong
O4        Other

Introspection Informants
FE1        Female English only, no. 1
ME2        Male English only, no. 2
ME3        Male English only, no. 3
ME4        Male English only, no. 4
ME5        Male English only, no. 5
FM1        Female Modern languages, no. 1
FM2        Female Modern languages, no. 2
FM3        Female Modern Languages, no. 3
FM4        Female Modern languages, no. 4
MM5        Male Modern languages, no. 5

Introspection Grammar Sentences
IG1        Tom don’t play the piano.
IG2        They hadn’t wanted to stay.
IG3        They demand that she accept the offer.
IG4        Do they not know?
IG5        We gave a present to they.

Survey Vocabulary
W1        ascent
W2        altitude
W3        porters
W4        crevasses
W5        ledge
W6        traversing
W7        descend
W8        bottleneck
W9        oxygen
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