English Degree Thesis I
Bachelor's Level
Teaching Academic English to English Learners

A literature Review on Classroom Practice

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Abstract
The level of fluency in the genre specific language of schooling, also known as Academic English (AE), determines students’ success in school. Government agencies that legislate school policies therefore give teachers the directive to conduct education in ways that promote communicative abilities in academic English across all curricula. While the acquisition of an AE register entails hard work for native English-speaking students it presents an enormous challenge for English language learners (ELLs) who are faced with the triple burden of learning basic interpersonal communicative skills (BICS) in addition to content knowledge and academic English. Classroom practices, teachers’ training, and students’ cognitive abilities are predictive factors in the successful acquisition of academic English by ELLs. This literature review, which draws on cognitive theory in addition to systemic functional linguistics theory, contributes to the topic of how to most effectively teach AE to ELLs in English speaking classrooms. The results from seven peer reviewed research sources indicate that teaching practices differ depending on the nature of the subject, but that systemic learning theory, scaffolding, and contextual awareness are reoccurring elements. Furthermore, the results imply that there are challenges including that ELLs constitute a very heterogeneous student body with varying cognitive abilities that require a variety of teaching approaches. In addition educators’ attitudes, competences and training in teaching AE across all curricula pose a challenge to the quality of instruction. Further research on the topic could involve making actual classroom observations in addition to conducting teacher interviews in schools that have content and language integrated learning in Sweden to explore what instructional methods are used to teach AE in CLIL education.

Keywords: Academic English, BICS, English language learners, English as a second language, systemic learning theory, teaching practices, cognitive theory, teachers’ training, scaffolding.
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1. Introduction
People’s level of fluency in language, both spoken and written, will determine their ability to excel academically and professionally (Schleppegrell, 2004, p. 5). Furthermore, as English has become the exclusive language of use in many global settings across the world, the importance of fluency in the English language is of utmost importance for those who aspire to social and academic success in such setting where English is the official language. Language also constitutes the centerpiece of teaching and learning, and it is through language academic content knowledge and skills are conveyed and conceptualized. Thus there are also linguistic expectations in regards to students’ ability to comprehend and produce the language of formal instruction, more commonly known as school language or academic language. Academic language has to be learnt as it differs greatly in nature from the basic interpersonal communicative skills (BICS) that constitute the everyday language spoken in social contexts. Thus, many students that are not fluent in the academic language used at school fall behind for the mere reason that they do not fully comprehend the language of schooling (Cummins, 2000, p.100). Furthermore, as CLIL –programs are becoming increasingly popular in Sweden on the same time as many Swedish high schools often use material written in English, there is a need to explore different teaching methods beneficial for the acquisition of academic English in English language learners.

English language learners from different socioeconomic backgrounds arrive in school with different abilities depending on prior school experience in their native language, parents’ educational level, and prior opportunities for literacy engagement. Therefore, it is extremely important for educators to understand that while some students come fully prepared to merely develop the knowledge they already have in their native language, other students may need extensive instruction in both the subject and the language of schooling in order to succeed academically.

As students who are native English speakers find themselves challenged when they encounter the new content language genre used in school settings, it can be a tremendously difficult task for new English language learners or English as a second language students (ESL), to acquire the necessary academic language skills to succeed in school. According to research by second language acquisition theorist Cummins (2000) it takes these students an average of five to eight years to catch up academically with their fellow native English speaking students, and that is under favorable instructional conditions. However, if educators lack knowledge, which unfortunately many times is the case, and thus have insufficient competence in regards to practices that promote and develop fluency in academic school language among ESL student, the ESL students are at high risk of falling behind further or in worst case failing school altogether (Cummins, 2000).

As a teacher student with experience from teaching English language learners in diverse classrooms in Sweden, Japan, and the United States I have often seen these students struggle with both the comprehension and the production of academic language, which often resulted in an inability to use content appropriate language pertaining to different genres. In addition, as a teacher, I have many times found myself at a loss in regards to what didactic approach would most optimally benefit my own students, a dilemma that is the inspiration behind the topic of this thesis that will investigate how academic English is taught to English language learners.
1.1 Aim and research questions
As students’ success in school is contingent upon the ability to learn the patterns of discourse in the language through which academic knowledge and skills are conceptualized, it is of utmost importance to take a look at what instructional practices are beneficial to the acquisition of such language. The aim of this paper is to review current literature to determine how to most effectively teach academic English to English language learners, and the research questions are the following:

- According to research, how is academic English taught to English learners?
- What instructional methods have been shown to be effective in helping ESL students learn academic language?

1.2 Definition of terms
This section will define terms and abbreviations used in the study.

1.2.1 Academic English (AE)
Academic English, also abbreviated AE in the text, is the language genre of formal instruction and refers to the content specific language and formal terms used in schools to convey and conceptualize knowledge and skills. This is also sometimes referred to as school language or the language of schooling (Schleppegrell, 2004).

1.2.2 CALP and BICS
Cognitive academic language proficiency (CALP) refers students fluency in the formal academic language used at school and is highly contingent upon the cognitive abilities of students (Cummins, 2000). Basic Interpersonal Communicative Skills (BICS), on the other hand, refers to the everyday informal language used socially and at home. According to Cummins (2000, p. 59) there is a sharp contrast between academic teaching and social interaction and thus the two concepts need to be differentiated.

1.2.3 ESL, ELL, and EFL
English as a second language (ESL) refers to education in the English language involving students that are non-native speakers of English in schools where the predominant language is English. English language learner (ELL) is a term that refers to the above-mentioned students that are learners of the English language. Both terms refer to the same category of students and are commonly used interchangeably in research studies and other peer reviewed materials. English as a Foreign Language (EFL) is a term that can be applicable to for example students in Sweden who learn English in non-English speaking schools as a foreign language (Garcia, 2009).

1.2.4 CLIL
Content and language integrated learning refers to an educational program where a second language is the educational language of instruction in non-language school subjects. Students in CLIL-programs are exposed to the L2 across curricula and thus have the opportunity to learn a foreign language to a greater extent than if language education only takes place in a foreign-language classroom (Olsson, 2015).

1.2.5 Scaffolding
Scaffolding is a practice where a teacher supports learning in students’ zone of proximal development which entails working on a level that students cannot master without guidance by a teacher, and then move the learning experience in to a higher challenge zone that is above the students’ abilities. The students are led into a more advanced learning situation by
the teacher who supports (scaffolds) the students until they can handle the more cognitively demanding knowledge and material on their own (Gibbons, 2009, p. 24)

1.2.6 Translanguaging

*Translanguaging* is a strategy where bilinguals use code-switching and alternate between their native language and the language they are learning to make sense of their bilingual context and to construct a deeper meaning (Garcia, 2008, p. 45).

1.2.7 Affordances

*Affordances* are the physical, social, or symbolic resources that constitute the preconditions for learning. Examples of such affordances are the availability of books, computers, teachers or the ability to translanguage in order to communicate or comprehend instruction (Gibson, 1979).

1.2.8 Grammatical metaphor

A *grammatical metaphor* is an incongruent way to construct meaning where for example a verb becomes a noun phrase with the purpose for a large amount of information to be packed in the subject position of a phrase. A congruent form is an everyday expression like for example: *A vaccine against chickenpox was discovered*. An incongruent form is a specialized expression where the verb becomes a noun phrase. For example: *The discovery of a chickenpox vaccine* (Schleppegrell, 2004, p. 72).

2. Background

This section will provide some background about academic English acquisition by ELLs. Furthermore, it will take a brief look at CLIL-instruction in Sweden in addition to describe guidelines in regards to teaching academic English to ELLs.

2.1 The acquisition of academic English by ESL student

According to Cummins (2000) cognition is the most important factor in regards to the ability of ELLs to acquire academic English language skills. In addition Cummins (2000) argues that it is important for teachers to be able to understand the difference between the everyday language students use for social interaction which is highly contingent upon cues and context, also called basic interpersonal communicative skills (BICS) and the ability to master the abstract decontextualized and often content-based language genre of instruction, which Cummins calls cognitive academic language proficiency (CALP). Furthermore, Cummins (2000) claims that cognitive abilities, and thus students’ IQ, is highly connected with ELLs’ abilities to acquire an academic English language register. Therefore the literacy capacity that ELLs already possess in their first language plays a role in the outcome of the ability to gain proficiency in academic English. Students with a solid school background and high literacy competence in their native language can according to Cummins (2000) catch up with their English native-speaking peers rather quickly, while students with low or no literacy capacity in their native language might need ten to twelve years to catch up. This highlights the extreme importance of ELLs’ access to comprehensible academic language instruction in both English and their native language (Cummins, 2000, p. 100).

In contrast to Cummins’ (2000) theory about the importance of cognition, Schleppegrell (2004) puts forth Halliday’s argument that language is produced as a function of social interaction and societal demands to express those experiences through language. Furthermore, lexical and grammatical features create different contexts, which in turn create language (Schleppegrell, 2004, p. 18). According to Schleppegrell (2004) fluency in academic English in school is developed through interaction with new tasks that develops new ways of thinking
and in turn a need to put appropriate language on experiences. Acquisition of academic English is thus contingent upon the way formal knowledge and tasks are imbedded in a social context (Schleppegrell, 2004, p. 156). According to Schleppegrell (2004) educators need to be aware of the inequality among students in regards to access to academic English acquisition in school since all students are not given the same opportunity to interact with the new tasks and experiences optimal to develop academic language skills. Systemic functional linguistics theorist Halliday states: “The ability to operate institutionally…is something that has to be learnt; it does not follow automatically from the acquisition of the grammar and vocabulary of the mother tongue” (Halliday, 1973, p. 11).

2.2 CLIL-instruction in Sweden
In Sweden there is a belief that the more exposed to English students are the more proficient they will become in the English language. In addition, the current globalization trend with its future demand on the Swedish population to be professionally operational in international settings is one of the reasons behind English-medium schools. Moreover, schools with an international profile gain prestige and thus attract more students and more revenue (Yoxseimer Paulsrud, 2014). However, recent studies have shown that Swedish students that part-take in English-medium schools do not become more fluent in AE than students in regular schools and, according to Yoxsimer Paulsrud (2014), English-medium instruction can be detrimental to the students’ Swedish language skills as their Swedish suffer due to lack of simultaneous corresponding level of education in Swedish. Moreover classroom observations in two CLIL-schools in Sweden reveal that language policy differ between schools and among teachers. Thus, the instruction is not 100% English-medium as Swedish is extensively used as an affordance in scaffolding students as they engage with more advanced material in AE. Furthermore, translanguaging is common, both as pedagogic and non-pedagogic strategies and therefore it is questionable if some of the English-medium schools in Sweden do qualify as CLIL-instruction (Yoxsimer Paulsrud, 2014, p. 209).

2.3 Guidelines about teaching academic English to ELLs
As many of the primary sources used in this literature review originate from the United States it is of interest to point out that federal education agencies in the United States draw attention to the fact that English proficiency on advanced levels is required for students to be able to operate successfully in the new and demanding global environment. In addition, people move across national borders as never before resulting in an ever increasing number of non-native English speaking immigrant children in English speaking schools who need special linguistic support to excel academically. In light of this phenomenon, agencies in several of the countries where English is used as the official instructional language or taught as a subject in schools have provided guidelines for educators to follow regarding practices that promote fluency in academic language skills among ELLs, both content based and across the curriculum. In the United States, for example, the Common Core Standards set forth by the Department of Education state that training in content specific academic language pertaining to each subject should be a major part of the instruction. As a result there are guidelines for each subject area in how to implement such teaching methods as part of the curriculum (www.tesol.org).

Regarding the Swedish context the Swedish National Agency for Education, Skolverket, gives Swedish schools the mission to promote proficiency in the academic English used in advanced concrete and abstract subject areas in all verbal and written communication (Skolverket, 2011, p. 60). However, despite the implementation of policies in regards to practices that promote academic language proficiency, teaching strategies adopted by educators differ. This is due to the fact that many teachers are not sufficiently trained and
result in an unequal opportunity to acquire academic English proficiency among ELLs as many teachers continue to use mainstream didactics in linguistically diverse classrooms (Curtin, 2005, p. 27). Therefore, and with the purpose of improving teaching strategies, there is a need to investigate how academic English is currently taught and what methods seem to work in regards to teaching academic English to ELLs.

3. Theoretical perspective
This section describes the two relevant theories used to interpret and frame this literature review.

3.1 Cognitive theory
In accordance with Piaget’s cognitive theory cognitive abilities are central in the acquisition of academic English by ELLs and ESL-students as such language is highly abstract and decontextualized. Students with high literacy competence in their native language will thus learn academic English faster than those students with low or no literacy experience in their native language. In addition ELLs who continue to receive instruction in their native language are more successful in developing the language of higher order that constitutes academic English since cognition can easily be translated into another language. In other words, if students already have the corresponding level of knowledge in their native language it is just a matter of transferring those skills into English (Cummins, 2000).

3.2 Systemic functional linguistics theory
According to systemic functional linguistics theorist Halliday, students acquire the language of schooling by “learning language, learning through language, and learning about language simultaneously” (Halliday, 1980/2004). Systemic functional linguistics theory thus claims that language is merely a function that systemically organizes tasks and experiences into language, and thus highly influenced by the social context in which the new experience occurs. The development of academic English language skills thus depends on what tasks and experiences students are exposed to at school as AE is taught by linking students’ activities and observations in the classroom with theory (Schleppegrell, 2004). Classroom interaction, where ELLs can talk about how the language is constructed to represent meaning as they engage with content activities is thus key to the acquisition of an AE register (Schleppegrell, 2010, p. 93). Furthermore, systemic functional linguistics also involves teaching students how grammatical metaphors are used to negotiate meaning in different contexts (Schleppergrell, 2004, p.71-72).

4. Methods and material

4.1 Design
The method chosen for this thesis is a literature review. A literature review involves gathering and identifying as much relevant and available material pertaining to the topic of choice as possible with the intention to review and summarize previous scholarly works in order to answer the research questions. Furthermore, the quality of a literature review is contingent upon the number of quality research studies available on the subject (Barajas Eriksson, Forsberg, & Wengström, 2013, pp.30-31). Due to the limited time frame, length, and scope of this literature review it cannot be regarded as a comprehensive study on the topic.

4.2 Selection Strategies
Four databases were used to retrieve scholarly work and in order to keep the thesis as current as possible searches were restricted to material published during or after the year 2005. Documents gathered for the review and background material include peer-reviewed journal articles and professional books in addition to policy documents on the Swedish and American
Departments of Education’s websites. The databases used for searches were ERIC, Google Scholar, Summon, and Swepub. However all material used in this study, except the books that are university student literature, were retrieved from ERIC and Google Scholar.

Three main areas of interest based on the research questions governed the materials selected for the review and were as follows: Background and definition of academic English, academic English teaching practices, and teacher training in regards to teaching academic English to ESL students. During the database search process several search words and combination of search words were used to retrieve relevant research material pertaining to the research topic. The search words that were used separately and in combination included academic English, ESL students, English language learners, teaching academic English, learning academic English, teaching practices, common core standards, CALP, and BICS.

The database search generated numerous titles of peer-reviewed material pertaining to the topic of research, a number that was narrowed down through a process that entailed reading the abstracts of the works and electing the material that appeared most relevant and interesting. During the initial search interesting material published earlier than 2005 came up and was used to provide background reading on the topic.

During the selection process seven peer-reviewed sources from Sweden and the United States were chosen to be used in this literature review based on their seeming to be the most relevant, interesting and current material available in regards to the topic. Sources from the United States were of particular interest since the United States historically have had many immigrants and thus have extensive experience with ELLs in schools. The selected research sources are listed in alphabetic order in the table below and the purpose of each study is briefly explained under type of study:
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Year</th>
<th>Country</th>
<th>Type of study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cummins, J.</td>
<td>Literacy engagement.</td>
<td>2011</td>
<td>USA</td>
<td>Research Article on the role of printed texts in the acquisition of AE among ELLs.</td>
</tr>
<tr>
<td>DiCerbo, P. A., Anstrom, K. A., Baker, L. L., &amp; Rivera, C.</td>
<td>A Review of Literature on On teaching Academic English to English Learners.</td>
<td>2014</td>
<td>USA</td>
<td>Literature Review on how AE teaching is conceptualized in classrooms in different subjects.</td>
</tr>
<tr>
<td>Schleppegrell, M. J.</td>
<td>Language in academic subject areas and classroom instruction: what is academic language and how can we teach it.</td>
<td>2009</td>
<td>USA</td>
<td>Research Review on the role of oral language in developing an academic English register.</td>
</tr>
</tbody>
</table>
4.3 Analysis
A qualitative approach was used in the analysis method of this literature review. According to Barajas Eriksson et al. (2013, p. 49) the purpose of a qualitative analysis approach is to describe, comprehend, and interpret research data in order identify and summarize common prominent patterns and themes in the study. The process of analysis of the materials used in this study included thoroughly reading through each article and identifying the most important aspects. The result from each source are then synthesized and presented in the results section of this paper. Further on the result is discussed in relation to the thesis questions and the appropriate theoretical perspective.

4.4 Ethical aspects
Since this study is a literature review on research already conducted, ethical considerations in regards to confidentiality of study participants was never an issue as that aspect had been covered in preparation of the original studies presented in the material. However, the main ethical issue in this literature review is research bias as the researcher does not only make the decision in regards to what research material to include in the study, but also must identify the most important results to use in the analysis and conclusions about the topic, and thus subjectivity cannot be avoided (Cohen, Manion & Morrison, 2011). The researcher can strive for validity, reliability, and objectivity by making certain that all material included in the study are scholarly peer reviewed research material (Eriksson Barajas et al., 2013). All these aspects were taken into consideration as the sources used in this study were checked off against a quality checklist in found in Eriksson Barajas et al. (2013).

5. Results
This section presents the results of the literature study on how academic English is taught to English language learners. The findings are divided into three main headings and several subheadings. The material under the first heading summarizes studies conducted on how teachers teach academic language to ELLs in science, mathematics, history and social studies. The topic under the second heading presents the findings on what instructional methods have been shown to be effective in helping ELLs learn the genre specific academic school language. Lastly, the third section involves the Swedish context and presents the finding of a research study on what effects CLIL-instruction have on the acquisition of academic English in Sweden.

5.1 How academic English is taught to English language learners
This section presents the synthesized findings of the selected literature on classroom practices in teaching academic English to English language learners, hereafter referred to as ELLs.

Since language acquisition traditionally is thought of as something that takes place mainly in English classes many studies have already focused on useful methods to teach academic English to ELLs in English language arts. Moreover, as Swedish schools with CLIL-programs conduct content and language learning simultaneously it is of great interest to explore teaching practices in other subjects than English. Furthermore, since the character of AE is genre specific and each school subject has its own content language, the results in this literature review include studies from science, math, history, and social science classrooms. Moreover, as the Swedish National Agency for Education, Skolverket (2011), instructs educators to use teaching practices beneficial to the development of an academic language across the curriculum, in addition to the existence and popularity of CLIL-schools in Sweden, it is of great importance to explore practices in different subjects.
The results indicate that in those classrooms where AE is taught it is taught differently depending on the subject. In addition, most teachers approach the acquisition of subject appropriate language registers depending on what works best in regards to classroom material, instructional situation, and level of the students’ cognitive abilities and English proficiency (Aguirre-Muñoz et al., 2006).

5.1.1 Academic English instruction in science class

Due to the correlation between strong academic language skills and success in school for ELLs, researchers have carried out classroom observations to explore how teachers actually do conduct instruction with the purpose to teach subject specific academic language to their students. The studies demonstrate that each and every subject in school does use its own particular genre of language to construct and communicate knowledge. Thus it is extremely important for students to acquire the language needed to be able to participate fully in both obtaining and expressing knowledge in each subject area (Dicerbo et al., 2014, p. 456).

According Schleppegrell (2009) the systemic functional linguistics (SFL) approach is highly prevalent in teaching AE to ELLs in the science curriculum as it systemically organizes tasks and experiences into language, influenced by the social context in which the new science experience occurs. The development of academic English language skills thus depends on what tasks and experiences students are exposed to in class (Schleppegrell, 2009). In addition, in regards to academic English instruction in science class, researchers have focused on the discourse and the lexicon in regards to specific areas of instruction. While lexicon is defined as the vocabulary used by the teacher and students in science class to talk about different topics, discourse entails the academic language used to express more cohesive and complicated thoughts on the subject orally or in written form (Dicerbo et al., 2014, p.455).

In their literature review Anstrom et al. (2010) describe how classroom studies find that the main lexical purpose of teachers’ communication with students in science class is description, explanation, comparison, and assessment, while discourse tends to be used while writing reports on experiments where students explain a particular phenomenon and provide evidence that supports the outcome of the experiment (Anstrom et al., 2010, p. 455). However, according to DiCerbo et al. (2014) classroom observations during science lessons where teacher talk then was analyzed show that the most frequent method used by science teachers as they engage with their ELL students is explaining and describing both in regards to communicating knowledge in new topics and while giving students tasks to complete. In addition, teachers tend to use explanations and descriptions while supporting students in need of extra support to grasp both new science concepts and the genre specific content language (DiCerbo et al., 2014, p.455).

According to the literature review of Anstrom et al. (2010) instructional research also focuses on how students acquire content specific academic language in science class through social interactions in the classroom staged by the teachers. Here students move from the lexical use of AE, talking about what they have learned, to the discourse use of AE, reporting what happened and why, by participating in instruction where they are encouraged to create meaning and explain results using words they already know. In the social interaction setting, the goal is a shift in register, and thus the teachers support the students instructionally and linguistically simultaneously by providing the framework of words appropriate to first talk about what is being done and then progress towards the genre specific language of science needed in an oral or a written report. The teachers were able to help ELLs to develop their academic English register in science by teaching language and content simultaneously in
addition to making the students fully aware of the specific words that they need to learn and are expected to use in science communication. Furthermore, teachers correct students in their speech and constantly remind them of the importance of using the new subject appropriate vocabulary to discuss and present their knowledge (Anstrom et al., 2010, p. 28).

Anstrom et al. (2010, p. 29) describe how AE is developed through classroom interaction and classroom sharing time where individual students present knowledge unknown to the rest of the class, and thus temporarily assume the instructional role followed by question-answer sessions between students and teachers that help students develop a lexically explicit language. According to Anstrom et al. (2010), the decontextualized material in the student presentations require explanation by the presenter and this in turn helps develop the students’ academic discourse skills. This exemplifies how science specific AE is learned through classroom activities in which teachers socialize the students into a genre specific science register by linking activities and observations in the classroom with concepts in science theory. According to the researchers, the discourse pattern in the social practice consisted of structured knowledge, question-answer relationship, and lexical cohesion. As in previous studies the researchers found that teachers reenacted the students’ conversations and answers and while doing so modeled the AE appropriate for the topic and situation (Dicerbo et al., 2014, p. 467).

5.1.2 Academic English instruction in math class

According to a research report by Ballantyne et al. (2008) math vocabulary, sentence structure, and context have proven to be problematic for many ELLs and thus even simple word problems in math can be a challenge, not because of the numeric math itself but because of the specific mathematical register used to describe mathematical relationships. Furthermore ELLs from different cultures often have problems relating to the specific contexts and circumstances in which math problems are presented. According to classroom studies, experienced teachers understand that in order for ELLs to be able to comprehend and express complex mathematical reasoning students have to first be able to relate to the mathematical situation. Therefore concrete instructional practices and hands-on activities that originate in everyday situations familiar to the students are often used to stage settings around different math problems (Ballantyne et al., 2008, pp. 51-52). Furthermore to prepare students, teachers preview math material, including vocabulary, together with the class by for example discussing situations where math is used to solve particular problems. The next step involves demonstrating for the students how to work through the problems, and finally practicing the procedural steps needed to complete the tasks together with the students, all while using the math specific genre of words and phrases that the students need to develop and learn to use in their math communication. However, according to Anstrom et al. (2010) studies show that classroom instruction in math differs greatly depending on the student body, and while mixed classes of students with high and low English proficiencies often were given a lot of time to partake in small group discussions about theories, problems and possible solutions together with their peers and in a way that promoted the use content specific AE, students in homogenous groups with lower English proficiency where subjected to sheltered and teacher led instruction where all mathematical communication took place through large group communications with the teacher as the mediator. Hence, students in mixed English proficiency groups were given more responsibility to solve math problems on their own in addition to opportunities to develop both their math and AE skills than students in sheltered groups (Anstrom et al., 2010).
5.1.3 Academic English instruction in social science and history class
The language used in history and social science instruction is very specialized, abstract, and dense and thus extremely hard to maneuver for many ELLs as content knowledge and language are highly integrated (Schleppegrell, 2009, p. 16). Implicit language where information is packed in grammatical metaphors is challenging for ELLs and therefore they need help to unpack the language to comprehend agency, logical connections, cohesive reference chains, and the textbook authors’ own interpretations of events (Schleppegrell, 2009, p. 7). Therefore teachers use scaffolding, where reasoning is modeled, to guide ESL students through dense and abstract social science and history material. In addition, cause and effect charts are used to help students unpack language by making the authors’ point of view explicit by illustrating abstract information in context. According to Cummins (2011), ESL students learn how to use the new register by being exposed to a variety of contexts, both interactional and textual, where the vocabulary is used in related situations and material with the purpose of showing the students several ways to use the register to construct meaning. Moreover, since printed texts are the main sources for the academic English register in both history and social science frequent and continuous opportunities for ELLs to engage in extensive reading and writing tasks is crucial for AE language acquisition, and research show that classroom instruction where literacy engagement takes place is optimal for ELLs in regards to academic language growth (Cummins, 2011, p. 142). Hence, it is the actual content learning itself that results in the development of an AE register among ELLs rather than the opposite as for example is the case in mathematic communication (Schleppegrell, 2009, p. 12).

5.2 Effective instructional methods of academic English
As CLIL programs are becoming increasingly popular in Sweden and as many Swedish high schools use texts and other media in English in many subjects, this literature study highlights several effective instructional methods with oral and written interaction at the center in helping ELLs to develop an academic English register across all subject areas. There is a strong influence of systemic functional linguistics theory (SFL) and practice in the methods of teaching AE considered effective.

5.2.1 Science
In science class research shows that an effective teaching method is to give students experiences where they interact with the material they are learning about and where the teacher then through classroom interaction moves the students from practical experience to science theory. Furthermore, AE instruction in science is effective when teachers model language and encourage students to communicate both orally and in writing about science using a content appropriate language register. Moreover, beneficial to the development of AE in science is to let students first present concrete and then abstract knowledge about for example a science project. This occurs when students are given class time to first talk about what they have learned from a concrete exercise and then presenting cause and effect using more abstract explanations (Schleppegrell, 2009, p. 18).

5.2.2 Math
In math class effective methods in the acquisition of a genre appropriate register include massive preparatory work with the ELLs students in regards to math vocabulary, sentence structure, and context since words in math do not only have different meaning in different contexts but also differ greatly from the everyday use and meaning of these same words in the students’ everyday situations. Furthermore, it has proven effective to work with context as many ELLs can have a difficult time to relate to math problems that are presented in unfamiliar settings, often due to cultural or socio economic circumstances. In this case it can be beneficial with hands on practical exercises where teachers incorporate items and concepts
from students’ everyday surroundings and then carefully guide the students from practice to theory all while using appropriate mathematical expressions (Ballantyne et al., 2008, pp. 51-52). In regards to developing mathematical communication an effective way is to let students work with math problems in small groups where they together collaborate to solve math problems while being encouraged to use appropriate math vocabulary (Anstrom et al., 2010, p. 27).

5.2.3 Social science and history
Regarding the social science and history classrooms research shows that oral interaction is promoted when teachers use follow-up questions to students’ responses instead of traditional question-answer sessions, and then recast students’ responses to include the appropriate AE register. In addition, non-evaluative listening and informal classroom conversations about the instruction where students explore turning their everyday language into a more content specific register also supports AE development. Furthermore, small group activities and students working in pairs with a variety of oral assignments designed by the teacher with individual student’s cognitive abilities and English proficiency in mind is beneficial for AE development. Moreover, teachers need to scaffold students by modeling appropriate ways of responding to questions in addition to encouraging students to produce longer and more advanced answers by making use of their first language in the initial thinking about how to respond and then translate the responses into English (Anstrom et al., 2010, p.27). According to Cummins (2011) extensive literacy engagement is a highly effective way to develop written communication skills in AE. Moreover, teachers should prepare students to write about academic topics by first reading and discussing interesting texts (Cummins, 2011). In addition, students benefit from scaffolding where the teacher first discusses the content literature used as background material for the writing exercise with the students and then models how to write about the literature by producing texts together with the entire class before giving students assignments to complete, either in smaller groups or individually (Anstrom et al., 2010, p. 27). Furthermore, students benefit from strong scaffolding in working with abstract and dense texts where the teacher unpacks the content by reconstructing and breaking down the material into a level that is comprehensible, including giving the students explanations of grammatical metaphors (Schleppergrell, 2009, p.12). Thus, it is safe to conclude that in the social science and history curricula students are reading to learn, both the subject content and the subject appropriate AE register simultaneously.

5.3 CLIL-instruction and academic English acquisition in Sweden
A recent Swedish research study with the aim to compare the differences in the progress of AE vocabulary in writing between CLIL-students and non CLIL-students expected the outcome to show that CLIL-students who are exposed to AE to a greater extent would progress more than non CLIL-students (Olsson, 2015, p.56). 230 students, 146 CLIL-students and 86 non CLIL-students, were used in the study where the students wrote four argumentative and explanatory essays in English covering natural and social science topics (Olsson, 2015, p.57). A total of 525 student texts were then analyzed and compared with two web-based academic word lists, AWL and AVL, for the occurrence of AE vocabulary (Olsson, 2015, p.58). AWL is a list developed at the New Wellington University in New Zealand that contains words used with high frequency in academic English texts, while AVL is a newer list of academic vocabulary including sets of lexical forms, lemmas, to complement the AWL (Gardner, 2007). The finding of the study was that students in CLIL-programs do not progress more in the acquisition of AE vocabulary in English than students in regular Swedish schools (Olsson, 2015, p. 67)
6. Discussion
This thesis aims to explore relevant peer reviewed literature with the purpose of finding optimal instructional methods beneficial to the acquisition of an academic English register by ELLs. However, while this literature review highlights some current practices and effective teaching methods it is very limited in nature due to size- and time restrictions. Moreover, according to Barajas Eriksson et al. (2013) the quality of a literature review depends on the number of available sources and thus this thesis has limitations in regards to being comprehensive as only seven sources were used. In addition, this literature review contains research bias as the author of this thesis made the decision in regards to what research material to include in the study and also then identified the most important results to use in the analysis and conclusions about the topic, and thus according to Cohen et al. (2011) subjectivity cannot be avoided.

As the Swedish National Agency for Education gives Swedish schools the mission to promote proficiency in the academic English used in advanced concrete and abstract subject areas in all verbal and written communication (Skolverket, 2011, p. 60), the purpose of this literature review is to determine how to most effectively teach academic English to ELLs. In order to gain deeper knowledge on the subject, eight different peer reviewed scientific sources have been analyzed with the purpose of answering the following research questions:

- According to research, how is academic English taught to ESL students?
- What instructional methods have been shown to be effective in helping ESL students learn academic language?

The results discussion is organized into two sections. Section one includes the discussion of the first and the second research question while section two brings up potential challenges in teaching AE to ELLs.

6.1 How academic English is taught to English language learners
Throughout this literature review it has become very clear that AE has to be taught to ELLs by teachers that have received proper training and thus have extensive knowledge and understanding of how such instruction can be conducted across all content areas. The research reveals that each subject has its different genres of texts and activities and thus its own register of AE. Therefore, ELLs often struggle to comprehend the meaning and function of higher order language and face large challenges as they have to learn BICS, content language and content knowledge simultaneously. As classroom instruction varies greatly in character depending on the discourse of the different disciplines, there is no singular formula or learning theory that is generally applicable to all subjects in regards to teaching AE to ELLs. However, systemic functional linguistics practices, scaffolding, literacy engagement, special attention to context, and extensive learning of vocabulary are among practices used in different subject classrooms (Aguirre-Muñoz et al., 2006).

Since academic language mainly exists in texts, generous access to print and opportunities to intensive literacy engagement in all subject areas where ELLs are introduced to a rich variety of text genres is crucial to the successful acquisition of AE (Cummins, 2011). Furthermore, literature discussions involving scaffolding, where teachers guide students to a more advanced level (Gibbons, 2009), is beneficially used. Moreover, to help students gain a deeper understanding of how to produce written texts in different subject genres teachers talk about the content and the language in the texts (Schleppegrell, 2004). Classroom practices where students first read then produce different text types such as for example narratives, expository
texts, reports, and reviews build literacy competence and AE language skills at the same time as it prepares ELLs for active literacy participation in all subjects at school (DiCerbo et al., 2014). According to Cummins (2011) empirical research with large scale data show that academic success actually is far more contingent upon students’ access to print and opportunity to engage with literature orally and written, than their socioeconomic background (Cummins, 2011, p.142). Literacy-engagement is thus known as a very effective way to teach AE to ELLs (Schleppegrell, 2004).

The main feature of science communication entails expressing relationships between cause and effect in addition to explaining abstract processes. Hence, systemic functional linguistics is used as tasks and experiences are organized by language in accordance with Halliday’s (1980/2004) theory. Moreover, as Schleppegrell (2004) claims, AE register is acquired as the social context in the classroom is used to link students’ experiences with theory and the appropriate language register to describe the activities.

According to Piaget’s cognitive theory students learn new material faster if they can relate to it cognitively and contextually (Cummins, 2000). In math educators spend a great deal of time to initially prepare ELLs in content specific vocabulary and sentence structures used in math communication with special detail to meaning as some words in math have one meaning in colloquial English and a totally different meaning in a math context. Furthermore, trained ELL teachers pay attention to context as many ELLs, due to socio economic and ethnic background, are unfamiliar with the different textbook situations and scenarios in which math problems might be presented. Hence, experienced ELL teachers initially strive to create contexts that are familiar to the students in addition to staging situations and using hands-on material in real math problems that students can relate to (Ballantyne et al., 2008, pp. 51-52). DiCerbo et al. (2014) describe that more proficient ELLs with more extensive study background are given more freedom to interact in discussions about math, and thus students with lower cognitive abilities are at a disadvantage in accordance with Piaget’s cognitive theory that students with higher cognitive abilities easily can translate their existing knowledge into another language (Cummins, 2000).

Systemic functional linguistics (Halliday, 1980/2004) is extensively used in social science and history as those subjects contain large amounts of texts with dense, abstract and decontextualized information that can prove very difficult for ELLs to decode. Teachers help ELLs to unpack the implicit language and grammatical metaphors in order to “comprehend agency, logical connections, cohesive reference chains, and the textbook authors’ interpretations of events” (Schleppegrell, 2009, p.11). Furthermore, teachers use extensive scaffolding, teaching in the students’ proximal zone of development (Gibbons, 2009), to promote ELLs acquisition of both knowledge and language, and thus in social science and history the approach is often “reading to learn” as the actual knowledge comes before the acquisition of the content specific language since the language is unpacked before ELLs learn how to produce it on their own (Shleppegrell, 2004). History and social science teachers often model language and recast students’ communication. In addition cause and effect charts are used to illustrate abstract information in context. In social science students’ cognitive abilities play a major role as the information is extremely abstract, and ELLs with previous content knowledge from prior schooling in their native language benefit greatly from that as they can exclusively focus on applying the new language to content they already are familiar with (Cummins, 2000).
A Swedish research study shows that in Sweden AE is taught to Swedish students through English-medium instruction that uses many of the similar methods as mentioned above (Yoxsimer Paulsrud, 2014). However, a research study involving 525 Swedish students in CLIL-programs and non-CLIL programs shows that CLIL-students do not progress more in the acquisition of AE vocabulary than Swedish students in non-CLIL instruction (Olsson, 2015). According to Olsson (2015) the reason is unclear but Yoxsimer Paulsrud (2014) claims that extensive translanguaging involving frequent code switching in addition to scaffolding in Swedish make it questionable if English-medium schools in Sweden are 100 % CLIL. In addition, and in accordance with Piaget’s cognitive theory (Cummins, 2000), the Swedish CLIL-students’ lack of simultaneous Swedish instruction may effect their abilities to progress to a higher level in English than they master in their native language (Yoxsimer Paulsrud, 2014).

6.2 Challenges in teaching academic English to ELLs

This literature review reveals students’ backgrounds and teachers’ competences, and training in AE instruction across the curriculum as the greatest challenges in teaching academic English to ELLs.

ELLs constitute a complex student body as they come from various backgrounds in regards to culture, previous school experience, socio economic status, parents’ educational background, and access to continued education in their native language. All are factors that according to research influence the ability to successfully acquire an academic language register (Schleppegrell, 2004). In Sweden, for example, there are privileged students with highly educated parents from homes where school is considered important in addition to students from marginalized homes without study traditions. Moreover there are refugee children with various backgrounds, and while some have never been to school many have gone to school in their home countries, however conflicts and other dangerous conditions may have affected both the quality and the accessibility of education.

According to the cognitive learning theory students’ cognitive abilities determine the success in the acquisition of an academic language, as such a language register is highly abstract and decontextualized. Studies show that students with a solid school background from their home country in addition to opportunity to receive continued education in their native language parallel to instruction in English will most likely become fluent in the academic English used in school, while students that lack previous schooling in their home country, like for example many refugee children from poor countries, and do not receive native language instruction will have a very hard time to comprehend the abstract and decontextualized register that constitutes academic English (Cummins, 2000). Furthermore, according to research socioeconomic background where students are from low income homes, in addition to racially and/or culturally marginalized, have disadvantages in regards to learning AE since they many times do not have access to books, parental support, or exist in an environment where schooling and hence academic English language fluency are considered important (Cummins, 2011, pp. 142-143).

The difference in the cognitive abilities among ELLs is a challenge in teaching AE as classroom studies show that students’ cognitive abilities impact teaching practices (Cummins, 2000). For example, a study made in math classrooms shows that teachers treat students with lower levels of English proficiency different than students with higher levels of English proficiency (DiCerbo et al., 2014, p. 465)
Regarding educators’ competences in teaching academic English to ELLs, the challenge is that teachers seem to have different attitudes, levels of knowledge, and training in what constitute the best teaching practices to promote the learning of AE in highly diverse student groups of ELLs in all subject areas. In addition, even if teachers do have training they do not always apply it to the classrooms as shown in a study where students gave accounts of bad teaching practices and mentioned that they for example were corrected publically, forced to read in front of the whole class even though they felt uncomfortable, divided into groups depending on native language and English proficiency, ignored, embarrassed by the teacher, not given enough support, and that teachers conducted instruction too rapidly and in a way that made it impossible to follow because of their English language deficiencies. Furthermore, many ESL classrooms are highly sheltered environments where teachers give directions to the students in one-way communications and where the level of instruction never reaches its’ highest potential, all which pose great challenges regarding beneficial practices that promote AE acquisition among ELLs (Curtin, 2005).

The attitude towards changing the discourse in mainstream didactic classrooms to include and benefit ELLs acquisition of AE has also proven to be a challenge, mainly because the development of AE among ELLs traditionally has been thought of as a task appropriate for language arts teachers only. Therefore, researchers have started to look for the best way to develop all teachers’ awareness and expertise in methods to teach academic English across all subject areas. In addition, researchers are constantly exploring methods that will fulfill the dual purpose of teaching both content knowledge and the genre specific AE language characteristic of that particular subject simultaneously (Aguirre-Muñoz et al., 2006).

7. Conclusion
This section contains a concluding discussion on the findings of this literature review on how academic English is taught to English language learners, what methods seems to be effective, in addition to potential challenges pertaining to teaching AE to ELLs. In addition a short section with suggestions in regards to possible future research on the topic concludes this paper.

7.1 Concluding discussion
Educators in Sweden are directed by the Swedish National Agency for Education, Skolverket, to conduct instruction in ways that will make all students fluent in the language of schooling in all subjects (Skolverket, 2011). In addition it is becoming increasingly common with English speaking schools in Sweden where CLIL-methods are applied. Furthermore, the Swedish Education Agency recognizes the fact that many Swedish students pursue studies abroad at institutions of higher learning where English is the language of instruction, and where their success is contingent upon fluency in AE. Thus the purpose of this literature review was to examine how AE can be effectively taught to ELLs by exploring literature on current classroom practices in teaching AE to ELLs. Moreover, during the literature review it also became clear that AE instruction with ELLs include many challenges.

First of all, the literature shows that issues pertaining to teaching practices beneficial to students’ acquisition of AE apply to all classrooms and all teachers regardless of subject as each curriculum has its own register of AE depending on content and task (DiCerbo et al., 2014, p. 473). Hence, all teachers need to be trained in methods that develop students’ knowledge in addition to subject appropriate language register in their respective disciplines of instruction (Aguirre-Muñoz et al., 2006). Furthermore, teachers need to be aware of the backgrounds of their ELLs regarding both culture of origin and cognitive abilities, including school background and native language skills, to be able to accommodate students learning in
familiar contexts and at their individual levels of cognition (Cummins, 2000). Moreover, since each subject has its own register of AE as tasks, material, and activities in the classrooms vary greatly according to discipline, the appropriate methods to teach AE also differ. However, easy access to print combined with extensive opportunities for literacy engagement where vocabulary is explained and grammatical metaphors unpacked can help promote AE fluency across subjects if ELLs are introduced to and guided through different types of text genres. Furthermore, systemic functional linguistics practices are effective, as academic language and content instruction have to take place simultaneously to be successful (Schleppegrell, 2004). Studies show that in accordance with Halliday’s (1980/2004) systemic functional linguistics theory AE can only become salient to ELLs when they engage in the specific tasks and texts connected to the language as AE is too abstract for ELLs to acquire without the support of context (Shleppegrell, 2009, p.21).

Lastly, a Swedish research study shows that students in CLIL-programs do not necessarily learn more AE vocabulary than Swedish students in regular schools (Olsson, 2015). Yoxsimer Paulsrud (2014) claims that not all English-medium schools in Sweden are 100% CLIL as language policy differ between schools and teachers allowing for extensive scaffolding in Swedish and frequent translanguaging. However, more research needs to be conducted to determine the actual cause between the lack in difference in the acquisition of AE vocabulary between Swedish students in regular schools and Swedish students in CLIL-programs (Olsson, 2015).

7.2 Further research
Since research show that AE vocabulary do not progress more in CLIL-students that in non CLIL-students (Olsson, 2015), suggestions for further research on the topic could involve making actual classroom observations in addition to conducting teacher interviews in schools that have content and language integrated learning in Sweden to find what teaching methods are used to further promote AE in CLIL- education.
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