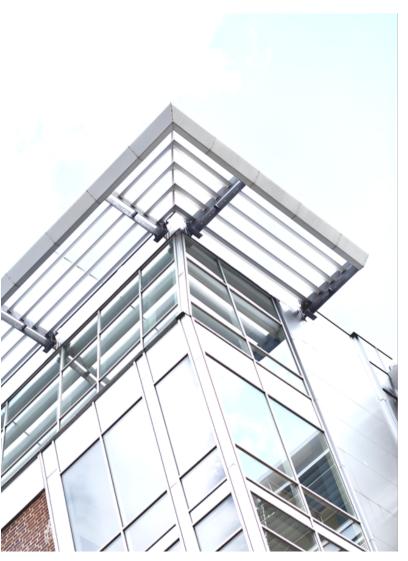# Critical Thinking in English as a Foreign Language Instruction:

An Interview-based Study of Five Upper Secondary School Teachers in Sweden

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Abstract

This study examines five English teachers' attitudes towards critical thinking (CT) and methods of assessment in English as a foreign language (EFL) in Sweden's upper secondary school. Through the use of interviews and policy document analysis, it is uncovered how the teachers interpret critical thinking, how they report on supporting students' abilities and how they report on assessing critical thinking in relation to the policy documents. Equivalent to previous studies conducted by researchers within similar scopes, the results show teachers operating around a limited definition of CT. In regards to supporting students CT abilities, the teachers reported on using student-centered pedagogies and formative assessment in order to stimulate students' CT abilities. The results of the interviews revealed that the teachers lacked a concrete methodology for assessing CT. The study concludes with implications for further research on the more concrete aspects of CT instruction, how teachers truly operate as well as investigation on the effects of CT instruction at teacher training programmes.

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1. Introduction

Since the 1990s English has been almost considered a second language by some in
Sweden (Hyltenstam, 2004). It has been gaining ground in a multitude of domains, one of
which is the domain of higher education (Språkrådet, n.d). It is estimated that 92% of all
research articles and upwards to 85% of Ph.D. dissertations from Sweden are written in
English (Josephsson, 2014). This, coupled with the fact that roughly 30% of Swedish
university courses are taught in English (Josephsson, 2014) and the massive development
of globalization in the last few decades, the need for a solid foundation and proficiency in
academic English is evident. Although some general proficiency in English is definitely
gained from the palpable presence of English in Swedish society, the preparation for
academic English would mostly be found in upper secondary school where students
pursue the merits necessary to attend university. The question that arises from this, is how
well prepared the students actually are in engaging with English at the university level,
especially when it comes to thinking critically through the medium of English in these
new academic settings. Students in the modern, globalized world cannot depend on a
mechanical exchange, interpretation and assimilation of information without critically
engaging with it. There is a need for students to identify intent, bias and agendas; using
these findings to draw conclusions and shaping their opinions (Paul, 1985). The onus for
developing both English proficiency and the much needed abilities of higher order
thinking lie on the teachers and instructors in the Swedish school system, and a concern is
of how well prepared they are to deal with this task.

This study aims to investigate how teachers of English in Swedish upper
secondary school interpret the concept of critical thinking (CT), how they engage their

students in CT instruction and what methods and modes of assessment they use when assessing student CT ability and this is then contrasted with what the national policy documents for Swedish upper secondary school state regarding instruction and assessment in English.

2. The Critical Thinking Movement

In the 1980's critical minds stirred as the decade witnessed a resurgence in inquiry, thought and learning based education, moving away from the accumulation of disjointed skills and aging knowledge (Facione, 1990). As it did, some fundamental questions regarding CT arose. These questions included the definition of what the skills that characterize CT were, what the methodology behind the assessment of CT was and which the most effective methods in teaching CT were (Facione, 1990). On a mission from the American Philosophical Association, Dr. Peter A. Facione spearheaded the development of critical thinking definitions and assessment methods in 1990 with his study "Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction. Research Findings and Recommendations." The study, utilizing the Delphi Method, gathered forty-six U.S. experts in CT and had them working towards a consensus in regards to the questions previously asked and their opinions of CT.

Meanwhile, a contemporary to Facione, Dr. Richard Paul, who in 1980 had founded the Center for Critical Thinking was expanding the center in 1990 by adding the Foundation for Critical Thinking. The objective of the Center for Critical Thinking is to "promote essential change in education and society through the cultivation of fairminded critical thinking" (The Center for Critical Thinking, 2013). Dr. Paul worked extensively

on the implementation of assessment methods for CT and devised programs and frameworks for the formation of national critical thinking tests (Nosich & Paul, 1992).

However, neither of these scholars developed CT with language development specifically in mind. CT was and is to both Facione and Paul a union of specific cognitive abilities. To delve into the association between CT and language development we have to move into the twenty-first century. Recently, the connection between developing English as a second language and the use of CT has gained considerable traction. Particularly scholars in the Middle East have done extensive work in researching the use and validity behind explicit critical thinking instruction and language development. Scholars such as Shaaban (2014) have found that explicit instruction in critical thinking methods has lead to improvements in reading comprehension abilities for EFL students. Kahrizi, Farahian, & Rajabi (2015) have drawn detailed descriptions of the impact of self-assessment for EFL learners' language development. Similarly, Bagheri (2014) has shown the relationship between EFL learners' learning strategies and critical thinking skills. Finally, from an instructor's perspective, Jafarigohar, Hemmati, Rouhi, & Divsar (2016) have investigated the attitudes instructors have towards critical thinking in an EFL context which shows that familiarity with the concept of critical thinking is correlated to willingness to engage with critical thinking instruction and the attitude towards the importance of critical thinking in the EFL classroom.

2.1 Critical Thinking

The irony of CT is that it is a term which demands the use of itself to adequately describe itself. Facione (2013) claims that it would almost be counter-productive to seek out CT as an abstract definition to be memorized. Nevertheless, there have been serious efforts

throughout the years that have made attempts at such definitions. But there is no consent

to one singular, distinct definition of CT. One reason for this is because CT spans across

multiple disciplines and as such is structured according to the perspectives of those

disciplines. Three of these disciplines are essential to the foundation of this study,

namely, the psychological, the philosophical and the educational discipline. The concern

is then of the mental processes, the essential parts and the practical use of CT. For

psychology, CT is looked upon as "the mental processes, strategies, and representations

people use to solve problems, make decisions, and learn new concepts" (Sternberg, 1986,

p. 3). In simpler terms Willingham (2007) explains critical thinking from a psychological

standpoint, saying that "[it] consists of seeing both sides of an issue, being open to new

evidence that disconfirms your ideas, reasoning dispassionately, demanding that claims

be backed by evidence, deducing and inferring conclusions from available facts, solving

problems, and so forth." (p. 8) Through a philosophical perspective CT is seen as

"purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation,

and inference, as well as explanation of the evidential, conceptual, methodological,

criteriological, or conceptual considerations upon which that judgment is based"

(Facione, 1990, p. 3). Finally the practical use of CT as an aspect of education is found

within the top three levels of Bloom's taxonomical hierarchy (analysis, synthesis and

evaluation) (Kennedy, Fisher, & Ennis, 1991).

A review of the three definitions provided shows that there are notable similarities

and agreement shared between the definitions. Primarily they all include some form of

analysis, evaluation and the making of inferences. Essentially, CT is an umbrella term for

a number of cognitive abilities (Shaaban, 2014). Beyond the cognitive abilities, scholars

also agree that CT involves certain dispositions towards the nature of thought. These dispositions include fair- and open-mindedness, the willingness to accept reason, inquisitiveness, the desire to reflect on multiple perspectives and the desire to be well informed (Facione, 1990; 2013; Willingham, 2007; Shaaban, 2014).

2.3 Critical Thinking Abilities

To assess the impact that CT skills have on language learning, CT must first be divided into the cognitive abilities that make up the term. This is important for two reasons. Firstly, this study is done in Sweden where the syllabus for English at an upper secondary level is devised in regards to various abilities, thus when assessing a student in the Swedish school system, it is the abilities of the student that are being assessed (Skolverket, 2011). This means that to examine how students are assessed in critical thought there must be clarity in regards to what engaging in critical thought means and which kind of cognitive abilities are employed. Secondly, there is a variety of comprehension methods with which to approach reading and at a multitude of proficiency and academic levels. These include but are not limited to critical reading, critical theory and comprehension strategies. All of these methods share common abilities but vary in their application of the abilities (Dymock, 2001; Haromi, 2014; Tyson, 2015). Having the abilities mapped out means that they can be located within each method's approach to comprehension.

Research on critical thinking has mapped out critical thinking into several abilities in the past (Ennis 1993; Paul & Nosich 1992; Facione, 1990). In general there is mostly overlap between individual researchers on what abilities constitute as CT, the differences

are mostly found in how they are formulated. Some researchers have decided to go with overarching terms to describe the mental processes that are used when engaging in CT (Facione, 1990) while others have decided to describe the processes that must be gone through (Ennis, 1993; Paul & Nosich 1992). To relate the CT abilities to the comprehension methods, this study employs the overarching names of the CT abilities, but expands on them with their sub-skills and their use in the specific methods. The specific abilities that are used are interpretation, analysis, inference, evaluation, explanation and self-regulation.

Interpretation is the comprehension and expression of the meaning or significance of a "variety of experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures, or criteria" (Facione, 1990, p. 6). Interpretation is the basis of reading comprehension and is one of the earliest abilities that is or needs to be developed in students (Dymock, 2007). In regards to comprehension strategies, instructing interpretation means that students are helped to understand more basic concepts such as (1) "That the setting establishes where and when the story takes place." (2) "That characters can be classified as major and minor." (3) "How to analyze individual characters, focusing on their appearance and personality, and how to compare and contrast characters." (Dymock, 2007, p. 163) and then move towards more elaborate structures such as interpreting the theme of a novel, examining the motives of characters or social commentary. Interpretation is used to answer questions such as "what does this mean? / what is happening? / what is the best way to characterize/categorize/classify this?" or "Why did the author write this?" (Dymock, 2007; Facione, 2013).

Analysis is an ability used "to identify the intended and actual inferential

relationships among statements, questions, concepts, descriptions, or other forms of representation intended to express belief, judgment, experiences, reasons, information, or opinions" (Facione, 1990, p. 7). A sub-skill to analysis is detecting arguments and analyzing arguments. Detecting arguments means to examine if a claim or expression is in support of or against a point of view, claim or argument. Analyzing arguments is examining how a claim or expression is able to achieve support or opposition. This particular sub-skill of analysis is essential to critical theory, since critical theory is concerned with applying a particular lens and examining a textual work through this lens to see how or if it supports the chosen perspective (Tyson, 2015). Furthermore, comprehension strategies are involved with analysis as well. To develop comprehension strategies, students could be asked to analyze the problem, response, action and outcome of parts of a novel or analyze smaller, sub-plot parts to see how they relate to the main theme of, for example, a novel (Dymock, 2007). Analysis is thus used to identify strengths and weaknesses between solutions to a problem or to investigate the relationship between sentences or paragraphs and the main purpose of a passage.

The third ability is *evaluation,* which has been defined as the ability "to assess the credibility of statements or other representations which are accounts or descriptions of a person's perception, experience, situation, judgment, belief, or opinion; and to assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions or other forms of representation" (Facione, 1990, p. 8). The most fundamental example of evaluation is determining the credibility of a source. This particular CT ability is a staple of most CT research. It is included in a multitude of CT definitions (Ennis, 1993; Paul & Nosich, 1992). A large part of evaluation is recognizing

what makes a source or person credible and if that changes with regard to the given topic. Evaluation is a large part of CT, and especially a large part of critical reading (Kurland, 2000). In critical reading, one must assess multiple facets of a text, such as author credibility, argument strength, bias, purpose and tone (Kurland, 2000).

Inference means "to identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses; to consider relevant information and to educe the consequences flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or other forms of representation" (Facione, 1990, p. 9). Inference is triggered by asking questions such as "what conclusions can we draw based on the current evidence?" or "if we accept this assumption, what are the consequences?" or even "what does this imply for us moving forward?". Inference is a skill tightly woven into the CT kit, especially closely related to analysis. Thus inferring also plays a large part in critical theory, especially when it comes to applying a lens and understanding what consequences that has for making claims regarding a text, e.g. what does applying a marxist perspective tell us about *The Great Gatsby* (Fitzgerald, 1995), namely, what can we infer from the evidence in the text with a certain perspective in mind (Tyson, 2015).

Explanation is the ability to illustrate the results of one's reasoning. Facione's (1990) panel of experts defined it as being able "to state and to justify that reasoning in terms of the evidential, conceptual, methodological, criteriological, and contextual considerations upon which one's results were based; and to present one's reasoning in the form of cogent arguments" (p. 10). Explanation is the post-production of critical thinking in reading comprehension, where we share the conclusions arrived at through the

previous abilities.

The final ability is *self-regulation*. It is "self-consciously to monitor one's cognitive activities, the elements used in those activities, and the results educed, particularly by applying skills in analysis, and evaluation to one's own inferential judgments with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results" (Facione, 1990, p. 10). Self-regulation means having or creating awareness of the influences of your own personal bias, to monitor your understanding when listening and reading and to be aware of what your understanding lacks or what your strengths are in regards to comprehension. According to Gardner (1999) self-assessment has a significant role in assisting students in developing self-regulation. Several studies (Zimmerman, 2000; Henderson, 2001; Halpern, 2002) have reported and emphasized on the importance of self-regulation in regards to academic success. Self-regulation helps shape autonomous students who are in control and focus of their own learning and understanding (Harris, 1997).

2.4 Critical Thinking Assessment

As the CT movement progressed in the late 1980s, the assessment movement followed closely hand in hand (Facione, 2013). However, because of the varying definitions of CT, assessment of the same concept always differs. It is therefore no surprise that the assessment criteria for the same skills vary depending on the definition employed. In the field of CT, notable researchers such as Ennis (1993), Facione (1990) and Nosich & Paul (1992), all have different opinions on assessment. The main problem with assessment is that it can easily limit our full sense of CT (Facione, 1990). Educators should not restrict

the assessment instruments to what can be effortlessly measured. Thus, Facione (1990, p. 16-17) recommends the following four assessment strategies or instruments for validating CT assessment:

(1) Content Validity; base the instrument on a suitable definition of CT;

(2) Construct Validity, each question should generate an answer based on the targeted CT skill;

(3) Reliability, insure that good critical thinkers do better than weak critical thinkers;

(4) Fairness, the instrument should not unjustly advantage or disadvantage learners based on their socioeconomic background, reading ability, familiarity with the specific vocabulary, gender or age.

Though Facione (1990) provides the groundwork for what is considered valid CT assessment, he offers little detail on how to construct a specific assessment module.

In Nosich & Paul's (1992) *A Model for National Assessment of Higher Order Thinking,* further elaborations are discussed for assessment of CT. Multiple-choice items, multiple-rating items and essay items are all valid assessment strategies for educators (Nosich & Paul, 1992). However, not all strategies are suitable for every CT skill. Multiple-choice items are strictly limited to what Facione (1990) identifies as interpretation, with a particular focus on its sub-skills: categorizing and decoding significance.

Furthermore, the strategy of using multiple-rating items is limited to the skill of interpretation, because it allows students to rank from a number of possibilities the

answer that is the most correct (Nosich & Paul, 1992). In comparison to multiple-choice items and multiple-rating items, essay items appear to be the most adaptable strategy. Essay items allows educators to assess a wide range of critical thinking skills, such as how learners "confront real issues, balance competing interest, weigh objections and alternatives, and make reasonable decisions about a matter of some consequence" (Nosich & Paul, 1992, p. 117). These skills are closely linked with the abilities to analyze and evaluate from Facione's (1990) consensus list of CT cognitive skills. As previously stated, theses skills involve examining ideas and assessing arguments (Facione, 1990).

It is important to note however that essay items does not ask learners to write an essay on a specific topic, instead they select an answer from a pre-selected rating list and then justify their choice in their own words. Although Nosich & Paul (1992) give clear and descriptive examples on how to assess CT, their procedures rely heavily on the effectiveness of multiple-choice and multiple-rating items. Moreover, the proposed assessment instruments only measure three of the six cognitive skills mentioned by Facione (1990).

Another CT expert Robert H Ennis (1993) addresses issues with multiple choice and rating items. Ennis (1993, p. 183) states, "existing multiple-choice test do not directly and effectively test for many significant aspects of critical thinking, such as being open minded and drawing warranted conclusions cautiously". Instead, Ennis (1993) advocates for the multiple-choice-written-justification format. This adds another dimension to multiple-choice questions because it allows educators to test more than one aspect of CT. Ennis (1993) also acknowledges the lack of alternatives in assessing CT and highlights the urgency for more research in this area.

In more recent years, scholars have heavily criticized the earlier conceptions of assessment in regards to CT (Brown, Afflerbach & Croninger, 2014; Mazer, Hunt & Kuznekoff, 2007). As previous research argues for large-scale assessment across subject borders, modern scholars highlight the importance of student-centered pedagogy, context-bound items and formative assessment. Mazer, Hunt & Kuznekoff (2007) encourage educators to engage in hands-on activities, which make learners "ask questions, take risks and learn through process" (p. 190). Hence, educators need to become better listeners in order to competently answer questions and statements from proficient learners. Further, since research suggest that CT skills are contextual (Willingham, 2007; Bailin, 2002), items need to be designed to "match meaningful instructional contexts" (Brown, Afflerbach & Croninger, 2014, p. 552). This implies that the long-standing assessment strategies proposed by Nosich & Paul (1992) for large-scale national assessment are not effective in developing CT skills for more modern learners (Brown, Afflerbach & Croninger, 2014).

According to Brown, Afflerbach & Croninger (2014), the lack of formative assessment hinders students from realizing the high expectations set by the NAEP (National Assessment of Educational Progress), which entails evaluating multiple streams of information across different subjects. Formative assessment is a fundamental part of learners' development as critical-analytic thinkers, especially in the context of reading. Reading is an ongoing process and it is not enough to establish a literal understanding of the text (Brown, Afflerbach & Croninger 2014). Learners must evolve through beneficial reading assessment by teachers. Formative assessment becomes crucial in this task. As Brown, Afflerbach, & Croninger (2014) suggest, "recognizing the potential of formative

assessment as a means to continually identify students strengths and needs within the zone of proximal development and help students build towards new learning and new performances" (p. 558). However, educators must always be aware of the fact that classrooms comprise of both high and low critical thinkers (Mazer, Hunt & Kuznekoff, 2007). It is therefore essential for educators to use a mixture of instructional approaches that appeal to different cognitive and learning styles (Hunt, Meyer & Lippert, 2006).

Nevertheless, questions still remain on how to apply beneficial formative assessment of CT skills. Brown, Afflerbach, & Croninger (2014, p. 549) argue for a four step assessment cycle:

 (a) *observing*; eliciting performances assumed to depend upon the latent variable(s), leading to set of observations (b) *scoring*; categorizing different observed performances and assigning them a relative value, or *scores,* (c) *summarizing,* combining the values of individual performances to yield *measures* of each latent variable*,* and (d) *interpreting* using measures of latent variables to answer the question and characterize how much of the CAT construct a student possess.

There is an element of danger in regards to assessment of CT that relates to the conceptions that teachers, instructors and even school administrators must be alert to, which is the application of a non-substantive concept of CT. Nosich & Paul (1992) argue that these non-substantive concepts arise when a person or institution supposes that the inherent meaning of CT is intuitively obvious, thus disregarding the analysis of research in the field. Furthermore, there are risks involved when such individuals or institutions assume that the abilities that make up the concept of CT (inference, evaluation,

explanation et cetera) can be separated in analysis from a theory which accounts for the interrelation of these abilities.

Finally, there is a danger in thinking that CT can be taught without reference to the values, dispositions and traits that are encompassed in a critical mind. Thus if a superficial concept of CT is involved, Nosich and Paul (1992) argue that the fallout can lead to three major problems. Firstly, "important critical thinking concepts, which must be clearly defined to be used effectively in assessment, may be used vaguely, inconsistently, incorrectly, or misleadingly", secondly "a false, misleading, or simplistic over-arching concept of critical thinking may be fostered" and lastly "an unrealistic strategy for the assessment and cultivation of critical thinking may be incorporated into testing and teaching" (Nosich & Paul, 1992, p. 93). The most far-reaching issue with the non-substantive concepts of CT is when they are employed and written into curricula by governing bodies, such as educational departments, and influence thousands of teachers to follow "a misconceived model for the assessment of reasoning, leading to mis-instruction on a grand scale" (Nosich & Paul, 1992, p. 93).

3. An Interview Study of Teachers' Interpretation and Assessment of Critical Thinking.

The purpose of this study is to investigate Swedish English language teachers' experiences with and attitudes toward CT and their method of assessment of CT. These attitudes and methods are compared to leading research in the field of CT and also compared to the policy documents and assessment criteria of the English subjects in Swedish upper secondary school courses. This study aimed to answer:

- How do selected English teachers in Swedish upper secondary school interpret the concept of critical thinking?

- How do selected teachers report on supporting / scaffolding students in regards to critical thinking abilities?

- How do selected teachers report assessing critical thinking in relation to the guidelines / material provided by Skolverket?

In conjunction with our aim, which was to investigate Swedish English language teachers' experiences and attitudes toward CT and their method of assessment of CT, the appropriate choice was interviewing. Seidman (1998) stresses the importance of interviewing in social studies and discusses various alternatives on how to conduct interviews. However, interviews are only able to produce a version of the truth (Seidman, 1998; Duff, 2008), because they are a joint production between the interviewer and interviewee in a specific time and place. For example, teachers might report a specific assessment method to the interviewer and then do something entirely different in his/her practice. This was an important element to contemplate before commencing the interview process in order to have an awareness of the limitations of interviewing as an applied research method.

Semi-structured interviews were chosen to create a balance between the two extremes of interviews: structured and unstructured (Christoffersen and Johannessen, 2015). This allowed the interviews to be more flexible while still maintaining a clear structure with prepared guiding questions. Consequently, an interview guide was specifically devised along the lines of Dörnyei (2007). Dörnyei (2007) debates some

important considerations when developing an interview guide, specifically regarding the structure and wording of the questions. In line with these considerations, the questions were crafted to be open-ended, not filled with ambiguous wording and not leading in any direction. Furthermore, in order to increase validity and reliability, the questions were discussed with the supervisor and reviewed together with peer researchers (Duff, 2008). For the same reasons, a pilot study was conducted in order to assure the questions dependability. The test subject was a teacher who had formerly worked with English at upper secondary school. As the result of the pilot study, minor adjustments were made, such as changing the wording of specific questions and establishing a definite outline for the interview.

The questions for the interview guide were structured in accordance with the research questions presented above. In other words, question 1 to 4 focus on how teachers interpret the concept of CT, question 5 and 6 center on how teachers support students in regards to their CT, and questions 7 and 8 on how teachers report on assessing CT. The interview guide in its entirety can be found in appendices A and B.

All of the interviews were conducted in the spring of 2016. The interview data were collected from 30 minute interviews with five English teachers in Swedish upper secondary school. Each interview was conducted in a separate empty room with each participant to avoid any disturbances or noise. Privacy and a calm atmosphere are two valuable assets in every interview situation (Duff, 2008, Seidman, 1998). It was also vital to build rapport with the interviewee. Small talk was therefore initiated to put the participants at ease before each recording. This helped us facilitate a relaxed and non-threatening atmosphere which are always important in a interview situation in order to

acquire open and detailed responses (Duff, 2008; Dörnyei, 2007). Since all of the participants took time out of their busy schedules as full-time teachers, time and place were selected based on the participants' wishes. Accordingly, all the interviews were conducted in the schools the participants worked in. Each participant was given the choice to perform the interview in Swedish or English. All of the participants chose Swedish as the focal language for the interview.

The interviews were digitally recorded with a Zoom H1 dictaphone. Partial transcription was then used after the recordings in order to save time from an overtaxing transcription process. One apparent disadvantage of this procedure is that researchers need to make key decisions on what to exclude and include early on in the study (Dörnyei, 2007). Nevertheless, partial transcription always leaves the alternative to expand the transcription on a later date. As a result, cautious steps were taken; key points of the interview were marked down during the recording to specify which parts were to be transcribed. Then, the interview data were reviewed multiple times before transcription (Dörnyei, 2007). That is to say, the audio recordings were replayed twice with an open attitude and without notes from the initial recording. New notes were taken based on the counter position of the dictaphone and then compared to the original key points marked down from the interview. If there were a correspondence between the new and the old notes, those parts were transcribed for the analysis. The transcribed parts were then grouped into categories to be evaluated for thematic connection (Seidman, 1998). This is also referred to as "coding" (Duff, 2008; Miles & Huberman, 1994; Saldaña, 2009). Miles & Huberman (1994) state "[c]oding is analysis. To review a set of field notes, transcribed or synthesized, and to dissect them meaningfully while keeping the

relations between the parts intact" (p. 56). This type of coding is similar to what Saldaña (2009) calls "descriptive coding", which entails categorizing different parts of text into topics and themes (p. 70). These topics and themes were then linked to the ideas and findings from the theory section.

However, the process of coding is not meant to be an isolated occurrence. As Saldaña (2009) states "Data are not coded – they're recoded" (p. 45). Therefore, the coding process was performed in cycles. During each coding cycle, these particular questions were considered: "What connective threads are there among the experiences of participants we interviewed? How do we understand and explain these connections? What surprises have there been? What confirmations of previous instincts? How have the interviews been consistent with the literature? How consistent? Have they gone beyond?" (Seidman, 1998, p. 111). According to Seidman (1998), every researcher must ask themselves these questions when studying transcripts and categorizing excerpts. Otherwise, important passages may be forgotten or ignored in the analysis (Seidman, 1998). Finally, since all of the interviews were conducted in Swedish, the answers were first transcribed by the researchers in the original language and then translated into English when quoted in the analysis.

3.1 Participants

Purposeful sampling was used to select information-rich cases for this study. According to Dörnyei (2007) "the main goal of sampling is to find individuals who can provide rich and varied insights into the phenomenon under investigation so as to maximize what we can learn" (p. 126). With this in mind, the participants of this study were not picked randomly but with a specific purpose. A varied set of schools were targeted for this study,

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ranging from high-performing schools to vocational, communal and independent schools. The strategy for selection shares common features with "Maximum Variation sampling" (Duff, 2008; Dörnyei, 2007; Patton, 1990; Seidman, 1998.) In such sampling, any shared pattern and variation is considered significant to capturing the core experiences and central aspects of the study, no matter the number of participants (Patton, 1990). Seidman (1998) also acknowledges this as an effective strategy because it "allows the widest possibility for readers of the study to connect to what they are reading" (p. 45).

The participants were selected on the bases of the following criteria: (a) the participants were teachers of English; (b) the participants were teaching at upper secondary school in Sweden; (c) they were presently teaching at least one of the courses English 5, 6 or 7. All of the participants were recruited by forwarding an email to upper secondary schools in the south of Sweden. In this email, the criteria for participants were stated, purpose of the study and a request for teachers that might fulfill the criteria. Three schools responded to the email and a total of five teachers were selected for the interviews. In accordance with maximum variation sampling, each selected school was uniquely different from the next. The first was a high-performing communal school, the second was vocational and the third independent.

In order to preserve the teachers identities and to make them more humane, the participants were given pseudonyms (Dörnyei, 2007). The participants' professional experience as teachers in Swedish upper secondary school ranged from eleven to fifteen years. Moreover, their academic background varied from five to eight years at universities. None of the participants have received any formal education in critical

thinking. However, one teacher acknowledged that she had obtained some training in critical reading during her years abroad.

3.2 Policy document collection

As stated previously, CT is a recurring term in the policy documents in Sweden's educational system. CT is mentioned both in content sections, knowledge requirements and core values. It is therefore crucial for this study to provide an analysis of the relevant policy documents. The purpose of this analysis is to derive meaning and insight from the documents. However, it also serves the purpose to deliver context within which the participants operate. The policy documents contain instructions for educators and essentially steer the teaching of English.

3.2.1 The Documents

Three relevant policy documents were identified. The first document was "Läroplan för engelska på gymnasieskolan" (National syllabus for English in upper secondary school) issued by Skolverket in 2011. CT is cited in "central content" under "reception", and in the "knowledge requirements". It is also an essential skill to obtain the grade "A", the highest possible grade in English 5, 6 and 7. The second document was "Ämneskommentarer Engelska" (Comments to the subject of English) also published by Skolverket (2011). In this document, additional commentaries are provided to the formulation "Kritiskt granska och kritiskt förhållingsätt" (Critically examine and critical approach). All the commentaries in this document related to CT were analyzed for this study. The third document analyzed for this study was "Lgy11 – Läroplan, examensmål och gymnasiet gemensamma ämnen för gymnasieskolan 2011" (Curriculum, exam

objectives and shared subjects for upper secondary school). This document provides

further details on the importance of CT in the Swedish educational system. The policy

documents described above were selected because they inform and steer the teaching of

English in upper secondary school in Sweden. Also, the documents are an important aid

for teachers in the assessment of students. All the policy documents were retrieved from

Skolverket's webpage.

3.2.2 Policy Analysis

A document analysis was utilized for this study (Bowen, 2009, Atkinson & Coffey,

1997). Document analysis is defined as "a systematic procedure for reviewing or

evaluating documents" (Bowen, 2009, p. 27). The method combines elements of content

analysis and thematic analysis. Content analysis is used for organizing information into

categories connected to the research questions (Krippendorff, 2012, Dörnyei, 2007).

Thematic analysis is an evaluation of the patterns within the previously discovered

categories (Braun & Clarke, 2006). Furthermore, Atkinson and Coffey (1997) argue,

"[d]ocuments do not stand alone. They do not construct systems or domains of

documentary reality as individual, separate activities" (p. 66). To put in another way,

researchers cannot just focus on individual parts. Policy documents need to be analyzed

jointly with other documents for it to make sense. In accordance with the framework

presented above, the policy documents were analyzed in conjunction with each other and

with the teachers' utterances.

4. Teachers' Critical Thinking Operations

The degree of familiarity with the concept of CT is related to the willingness to engage in, extent of ability to engage with, and attitude towards the concept (Jafarigohar, Hemmati., Rouhi, & Divsar, 2016; Seidman, 2006; Onosko, 1990). The teachers who participated in this study from Swedish upper secondary school had been offered little to familiarize themselves with the concept of CT, from both their studies at university and as part of their practitioner training. In fact, when asked, no teacher mentioned being offered any sort of formal training within CT in Sweden. The cause for that could be the lack of weight to the subject of CT in academic work as mentioned by Vivian, an 11-year veteran teacher who has been working with English for four of those years and currently teaching all courses of English and who has worked more closely with the concept in her studies abroad in France:

> Literary analysis is what I think about when you say that, in France
> they've come extremely far regarding critical thinking, regarding texts
> and books and literature. There is nothing you cannot connect to a root
> cause or a philosophical thought, or something which is hidden behind
> that. I was extremely invested in that then, in Sweden I would say it
> was not nearly of the same importance, but it existed, it exists in
> Sweden too, when you study language, but not nearly as in depth, no.

Considering that no other teachers mentioned being trained it CT, it is not surprising that teachers were only able to give vague, limited definitions of CT. As Vivian mentions, the concept seems to bear less weight in the teacher training programme at Swedish

university, thus familiarity with the concept is for her and the other participating teachers not fostered there, and as such their engagement with the concept follows the conclusion reached by Jafarigohar, Hemmati, Rouhi, & Divsar. Furthermore, this is in accordance with Stapleton's (2011) investigation, showing that teachers often operate around CT with unclear definitions of the term and unclear conceptual methods of engaging in CT. This is one of the major risks expressed by Paul & Nosich (1992), as this mode of operation can play a part in fostering misleading, false or simplistic attitudes towards CT. This unfamiliarity with CT can be related to the lacking definition of CT provided by Skolverket. Kevin, a teacher with 11 years of experience who currently teaches all the upper secondary levels of English, mentions that:

> The knowledge criterion which exists is fairly clear but also very small. They should be source critical. But that's not really enough. Critical thinking is present in all the knowledge requirements except the productive skill requirements. If you join the other three together, a lot of critical thinking is included, but it's only indirectly written.

Kevin has interpreted the knowledge criterion in such a way, that he believes the only true mark for him to assess students on critical thinking is by looking at how they handle their sources. This is despite the fact that he can see how CT is an elementary part of all the receptive knowledge requirements, but because it is indirect there is little room or need for teachers to justifiably engage with those aspects in their work. Examining the

policy documents, the assessment criteria from the syllabus for English 5 and the commentaries to the subject of English:

> Students choose texts and spoken language from different media and in a relevant, effective and critical way use the selected material in their own production and interaction. (2011a, p. 5)

> For the grade A it is added that the use [of the text] should also happen in a critical way. The students' production and interaction can then reflect a problematizing disposition towards the material. (2011b, p. 11)

It is clear that Kevin's interpretation is certainly apt, considering the wording in the policy documents. In the knowledge requirements it is stated that students should choose and use the material in a critical way, and the commentaries explain the value-word 'critical' as adopting a problematizing stance towards the material. Thus the wording in the documents is at a danger of leading the teachers to believe, by looking at the policy documents, that to observe students being critical thinkers, it could solely be done through source-criticism, a limited definition of CT is in play. This, as well, is a risk mentioned by Paul & Nosich (1992) as the employment of a 'non-substantial' definition of CT in a national curriculum can directly influence teaching, where "a misconceived model for the assessment of reasoning, leading to mis-instruction on a grand scale" is the danger.

However, just as in Stapleton's (2011) study, despite unfamiliarity, teachers had positive attitudes towards CT in school, often expressing its importance during the interviews. Teachers could thus be willing to receive instruction in CT and of its importance in EFL instruction. This begs the question of who the onus is on for familiarizing teachers with CT in Swedish EFL instruction, employers, Skolverket or the universities of Sweden.

4.1 Teachers interpretation of CT in relation to CT abilities

Relating the CT abilities to the teacher interpretations of CT, there is further evidence of non-substantial CT definitions in use. It is important however to note, that this study does not claim that teachers need to be able to name the specific CT ability by name for their response or interpretation regarding CT to be wholesome and defined. The issue is in what Paul & Nosich (1992) describe as the supposed intuitiveness of CT, meaning that educators, policymakers and other members of an educational faculty might assume that defining CT is intuitively obvious, which leads to the disregard of research in the field. This is relevant, since the teachers admit to not searching for any material related to CT or CT assessment, as well as Skolverket also offering a limited definition of CT in the syllabi for English. This means that despite the fact that this study could analyze the interviewees answers and interpret their answers to infer the awareness of various CT abilities, the underlying theory that links these abilities together (Paul & Nosich, 1992) is missing.

The one critical ability that all the participating teachers and Skolverket are in agreement over is evaluation. The primary cause behind this could be the popularity of

the term "source-criticism" in Scandinavia and its prominence in most subjects in Swedish education. Moreover, as previously mentioned, it is also an ability specifically mentioned by Skolverket in the knowledge criterion from the syllabus for English 5, as in that students should be "evaluating texts" as well as that:

> Students choose texts and spoken language from different media and in
>
> a relevant, effective and critical way use the selected material in their
>
> own production (2011a, p. 6).

Thus, teachers have a reason for directly engaging students in their evaluative ability, since it is an explicitly mentioned knowledge requirement for English. As seen before, in Kevin's interpretation of the knowledge requirements, evaluation can be problematic as it becomes too large and becomes the sole ability viewed in CT. Perhaps this is because students evaluation and source-criticism is more readily available for teachers to investigate and assess. Of course, that and the fact that it is the only ability that Skolverket directly demands teachers to assess and develop in their students.

Next, the two other mentioned critical abilities are analysis and interpretation. Elsa, a teacher of 15 years experience who usually teaches all levels of upper secondary English but is currently involved in preparing ninth graders and child refugees for their participation in upper secondary school, when asked to define CT mentioned:

> You make a selection out of the things you either read or hear and
>
> interpret it according to your own values, and perhaps the worlds as
>
> well, that you flip it around. It means to evaluate something.

Two teachers explicitly mentioned interpretation in this fashion, and Skolverket also mentions it under student development opportunities as "the ability to interpret content" (2011). All teachers, however, mention various forms of understanding, such as Malin's, a 14 years experienced teacher who teaches all of the levels of English at upper secondary school, and respectively Kevin's response:

> To not just swallow everything in one bite, to consider what might lie beneath, who it is that is saying or writing this, the context of what is happening [...] it important to think critically and not just, this is how it is. (Malin)

> See what it actually is you are trying to convey in a text, or a film or regardless of media. See what it is they are trying to say, what the central part is. (Kevin)

Thus the question to be asked is if interpretation is synonymous with understanding. Reflecting on Facione's (1990; 2013) studies, interpretation is described as the ability to comprehend a multitude of things. Understanding can be seen as a broader, vaguer term, but interpretation is definitely used to achieve understanding. Hence, it is clear that teachers would more frequently refer to the necessary CT ability as understanding, rather than interpretation, especially considering that Skolverket formulated the knowledge criteria for the grade A in the syllabus for English 5 as:

Students can understand both the whole and details of English spoken at

a varying speed and in clearly expressed written English in various

genres. Students show their understanding by in a well grounded and

balanced way giving an account of, discussing and commenting on

content and details,and with good results act on the basis of the message

and instructions in the content. (2011a, p. 5)

The term understand is in use here instead of interpret, in regards to content and

reception. Perhaps, if Skolverket is concerned with students developing their

interpretational ability, as mentioned in the syllabus for English, the knowledge criterion

should follow suit, as understanding rather seems to denote a state of mind whereas

interpretation is an active ability. Considering the fact that for the grade level A, students

must be able to understand details and how to engage with the material at such an

intimate level, it is worthwhile to consider the effects of the wording in the syllabus and

whether it needs to change. Interpretation as opposed to understanding would mean that

there is no correct answer and students can choose how they see the answers, as Elsa said,

according to their own and the world's values, which in hand could promote more critical

approaches to the material instead.

When asked to explain what abilities students needed to engage in CT, Molly, 11

years experienced teacher who teaches English 5 and 6, as well as Vivian answered:

They need to be able to analyze, interpret and have a good level of

reading comprehension. (Molly)

Analysis, it's the student's responsibility to reflect on their use of

language. (Vivian)

Both of them mention analysis, and it is also one of the first abilities brought up by

Facione (1990). Analysis is central to CT. Analysis however, might suffer the same fate

as the term critical thinking, especially within the CT concept. That is to say, the nature

of the term might seem so intuitively obvious, that little effort is spent in understanding

it. Indeed, in both the case of Molly and Vivian, neither further explain what they mean

by analysis. Vivian does however mention in regards to analysis that:

Older texts have a message embedded in them, so you should be able to

see a connection between an ordinary exclamation of love but that there

is a higher message inside.

This drawing of parallels and the identification of intended or actual relationships

between statements and ideas is the basis of analysis. It is important that when students

are to engage in analysis, it is more than just finding thematic messages inside older texts,

of course. Analysis can occur on many levels, and even so minute as within a sentence.

Skolverket's policy documents do not mention analysis specifically as an ability to be

trained within English. This could be because of a reason stated by Malin:

[The students] should work with [CT] in other subjects, there should be

some of it in English as well, even if it isn't on the same level.

There could be a belief that developing CT in one subject is directly translatable to other subjects, and as such the soft and hard sciences might take the brunt of allowing students to develop analytical skills. The question is then if these skills are translatable from subject to subject. Willingham (2007) questions the teachability of CT skills, in regards to the extent that these are transferable from one context to another, and others believe that it needs to be incorporated in all courses (Scrivener & Paul, 1987), whether it is at an equal amount is however, unclear.

In the syllabus, Skolverket's knowledge criteria for the various courses of English do contain requirements that suppose that students have analyzed various materials. For example, in the knowledge criterion from the syllabus for English 7, it is stated that:

Students can understand both the whole and details, and also implied meaning of English spoken at a rapid pace, and written English in various genres of an advanced nature. Students show their understanding by in a well grounded and balanced way giving an account of, discussing, commenting and drawing conclusions on content and details, and with good results act on the basis of the message and instructions in the content.

Students can choose and with certainty use strategies to search for relevant information, structure it and assess the reliability of different sources. (2011a, p. 14)

For students to be able to achieve some of these requirements, it is obvious that some analytical processes have to be carried through. Understanding implied meaning, showing understanding in a well grounded and balanced way and using strategies to structure information are all processes that at some point may require analysis (Facione, 2013).

Beyond that, the quote from the knowledge requirements above mentions drawing conclusions, an integral part of the CT ability inference. Inference goes unmentioned in both the interviews and the knowledge criterion explicitly, but, as shown, can be found indirectly through the responses of the interviewees and the wording of the documents. Malin mentioned, as part of the evidence she looked for when assessing students CT ability, that:

> When they describe how a character in a fictive text is, even if it hasn't been clearly expressed they have understood the characteristics based on the person's actions maybe.

Malin is here cogent about an essential part of CT, and furthermore, her engagement in assisting students and assessing them is supported by the wording of the knowledge criteria. Since the criteria are asking for teachers to allow students to draw conclusions and do so fairly, grounded and well balanced, important CT skills must be developed and used in fulfilling these requirements. The fact that this is not mentioned by other teachers, does not mean that they do not involve their students in tasks that exercise these abilities, but perhaps, instead, that they are unaware of the link between inference and CT. It is

also important to note that the wording "drawing conclusions" is only present in the knowledge criteria for English 7 and not all participating teachers are educators in that course. The fact that drawing conclusions is only a wording in English 7 is important because it means that there is a varying degree of importance placed on CT as the level of English proficiency increases. This relates to what many of the teachers mentioned and that Molly expressed as:

> It becomes more scientific the further you get, and with that the level of
> critical thinking increases. English 6 contains more literature in
> different genres. To be able to question the text also becomes required
> in literature. [The level of critical thinking] increases successively.

It is interesting here that Molly mentions that as the course levels increase, the process of interacting with text becomes more scientific. This alludes back to what Malin said regarding how present CT is in English compared to other subjects, and the belief that CT plays a larger role in scientific areas than within language studies. However, the fact remains that there is a positive relationship between solid CT skills and reading and writing skills in educational environments (Luckett, 1991; Stewart, 2000), and thus fostering CT within specific subject areas alleviates some of the issue of translatability in CT between contexts which is beneficial over placing the responsibility on the scientific courses. It is also understandable that the level of CT is higher in English 7 as it is the only truly optional of the English courses formulated by Skolverket and serves as a preparatory course for university studies.

Finally, the last CT ability mentioned is self-regulation. As previously revealed, self-regulation is the ability that Facione (2013) considers the most important and, as shown by other scholars is a gateway to academic success (Harris, 1997; Zimmerman, 2000; Henderson, 2001; Halpern, 2002). Gardner (1999) claims that self-assessment plays a significant role in developing students' self-regulative ability. No teachers in this study mentioned engaging students in self-assessing work, however, this might exclusively be because when the teachers were asked what kind of tasks they engage their students in when looking for CT they were unaware that self-assessment played a significant role as a critical CT ability. This means that the participating teachers could very well be using self-assessment in their classrooms on a regular basis, but be unaware of the connection it has to CT. Vivian explains that she gives her students many opportunities to reflect on their work, stating that:

It's the student's responsibility to reflect on their use of language. They are given a chance to reflect on what they are doing and what needs to improve.

Although reflection is not a complete form of self-assessment it plays a vital role, in both that and self-regulation. Reflecting on one's own language use, Facione (2013) names two parts of self-regulation, self-examination and self-correction. When it comes to methodologies in the classroom and modes of assessment, Skolverket's policy documents avoid specific directions on how teachers should operate and leave that part to the professionalism of employed, competent teachers to resolve.

4.2 Localizing a Definition of CT for Assessment

In order for CT assessment to be valid, the assessment method must be based on an appropriate definition of CT (Facione, 1990, p. 16). As Ennis (1993) declares, the first step towards valid CT assessment is a defensible elaborated definition of CT. Skolverket does not provide teachers with a definition of CT in the national syllabus for English. However, Skolverket offers a clarification in the comments to the subject:

> Different ways to search, select and critically examine texts and spoken
>
> language "(course 5)," strategies for discerning attitude when you listen
>
> to and read requests from various sources and in various media "(course
>
> 6) or "strategies to draw conclusions about the spoken language and texts
>
> in terms of attitude, perspective, purpose and values, and to understand
>
> the implied meaning "(course 7) requires that students develop critical
>
> language awareness. This means that they acquire the ability to set their
>
> own investigative and critical questions about the form, purpose, context,
>
> perspective and content of what they are listening to or reading. (2011b,
>
> p. 8-9)

In the policy document excerpt, Skolverket connects critical thinking to the ability to ask critical questions to different situations and material. The definition is quite similar to Browne and Stuart (2007) description of CT, which says that "critical thinking consist of a awareness of a set interrelated critical questions, plus the ability and willingness to ask and answer them at appropriate times" (p. 3). These interrelated critical questions involve examining reasons, rival causes, ambiguous words, conclusions and assumptions in texts

and spoken language (Browne and Stuart, 2007). At the same time, asking critical questions is a minor, but consequential part of inference. When students make a claim based on the material, students need to understand the consequences of that claim. This process is referred to as inference, a core CT skill that is used for drawing conclusions and evaluating consequences (Facione, 1990).

Having considered students' use of strategies for searching, selecting and examining material, it is also vital to look at another knowledge requirement, namely student's use of the material in their own production and interaction. Here, another definition of CT is presented to upper secondary school teachers:

For the grade A, students need to use material in a critical way. Student production and interaction should reflect a problematizing approach to the material. (2011b, p. 11)

The definition weighs heavily on the term "problematizing" (*problematisera*), which is a term used in distinct ways in diverse research traditions. Paulo Freire first introduced the term as a strategy for developing a critical consciousness (Bacchi, 2012). According to Freire, problematization is primarily a pedagogical practice in which educators creates conditions "so students can critically question, deconstruct, and recreate knowledge without repercussions or reprisals in ways that enhance their sense of ethical responsibilities to self and community" (Darder, 2015, p. 89). Michel Foucault, on the other hand, describes the term as a method of analysis, which he calls "thinking problematically" where the individual does not search for one correct answer to a

problem but instead explores how it is "questioned, analyzed, classified and regulated" (Deacon, 2000, p. 127). Foucault also uses the term when referring to the historical process of producing objects for thought. This includes a contextualizing how and why certain things are considered a problem and how they are formed as objects of reason (Deacon, 2000). Furthermore, in regards to CT, it is not entirely clear what exactly problematizing entails in regards to cognitive abilities, CT researchers would claim it is the ability "to recognize a problem and define its character without prejudice to inquiry" (Facione, 1990, p. 7). This is also referred to as categorization, a sub-skill to interpretation.

As seen above, problematization is an abstract term. Herein lies a danger for teachers of adopting an insufficient definition of problematization into their practice. Without explicit training, teachers might be more likely to apply a layman's definition of problematization rather than a scholarly one that is more nuanced. As a result, teachers' assessment would be invalid as they are trying to analyze the wrong capabilities in their students.

Across these two excerpts, we see a fragmented definition of CT. This fragmentation reflects the complexities and challenges this concept poses for educators. Defining critical thinking has always been a complex matter since it stretches across several cognitive abilities (Ennis, 1993; Facione, 1990; Hughes, 2014). Therefore, educators need to be clear on which cognitive ability is being tested in order for CT assessment to be valid. In this process, the comments to the subject serve as an important link between Skolverket and the teachers' assessment of CT. As Malin remarked:

The comment to the subject, explains the concept a little more, I think

that is great; it is good that it is divided into the main content and then the

commentary, that everything is not in the same text. Survey materials,

support materials, support material for digital reading. I have not tested it,

but I think you can try different pieces, to make them a little more visible

to the students. I looked at it (CT) the other day. It reads to problematize

it. That word is not better explained than any other word. But it is better

than nothing at all. There is certainly more you can find if you do have

the time to look for it.

Her comment sheds light on the function of the additional material provided by

Skolverket. The comments to the subject is a separate document that clarifies certain

expressions and phrases in the knowledge requirement. Even though she upholds its

separation from the national syllabus as fitting, teachers could easily ignore the

document, considering it as surpluses and instead relying on their own ability to interpret

phrases in the steering document. As a result, teacher might form a 'non-substantive'

understanding of CT, or even worse, regarding the meaning as intuitively obvious. As

previously pinpointed, this is one of the main elements of danger regarding CT

assessment (Nosich & Paul, 1992). In the next section, we examine how teachers report

support CT abilities and how they assess CT in relation to the material provided by

Skolverket.

4.3 Student-centered pedagogy

As initial studies of CT focused on large-scale assessment (Ennis, 1993; Facione, 1990; Nosich & Paul, 1992), contemporary studies focused on how to foster CT on a local level (Brown, Afflerbach & Croninger, 2014; Mazer, Hunt, Kuznekoff, 2007). In line with these current studies, the participating teachers of this study employed more hands-on activities to support students CT abilities:

> I enlist the help of other students, or take help from the group, discuss in groups, you can also ask them to try to put themselves in a situation, or reverse the perspective of something they said. (Elsa)

> Asking open questions, it is quite easy to see if they have seen it in the way I would like them to see it, that they answer the question in a way that makes me happy, it is the fairly easy to determine if they actually have worked with it. (Kevin)

> Once a year, they read a friend's essay. First I talk to each student, and tell them what they need to look at, and write comments as well, stating what they need to consider in order to get higher (grade). Here, we have critical thinking for the student, they must sit with his friend's essay and read it and write comments to his friend. (Vivian)

Elsa, Kevin and Vivian reported of using a student-centered approach for supporting students' CT abilities. Elsa described different methods that are linked to student-

centered pedagogy, such as group discussions, peer review or using the class as a whole

to provide examples for comparison and contrast while Kevin reported of using open-

questions and Vivian peer-review to stimulate students critical thinking. These hands-on

learning activities allow students to become active in their own education and

consequently help them facilitate a critical mindset (Mazer, Hunt & Kuznekoff, 2007).

These methods would in turn increase students' CT over time. As previous research also

indicate, that student-centered pedagogy does not only increase students' CT, but also has

a positive effect on learners test performance overall (Garside, 1996).

4.4 Teachers' Methods of Assessment

The first step in Brown, Afflerbach, & Croninger's (2014) four step cycle of CT

assessment is observation. It is within this step that teachers devise an appropriate task,

activity or assignment, which elicits students performances based on the latent variable.

In this case, the latent variable is student's ability to search, select and critically examine

texts (Skolverket, 2011a). Following the same structure as the present assessment cycle,

we first exemplify methods mentioned by teachers in order to understand their process of

assessment.

Techniques for assessing critical thinking skills range from multiple-choice items

for large scale national assessment (Facione, 1990; Ennis 1993; Nosich & Paul, 1992), to

written assignments, debates and group projects (Cotter & Tally, 2009; Kennison, 2006;

Marcketti, 2007). Hence, an important component to contemplate for upper secondary

teachers, is the use of written assignments, activities and tasks for assessing CT. Facione

(1990) notes, "different kinds of instruments should be employed, depending on which

aspect of CT is being targeted and where students are in their learning" (p. 17). As we

have seen, the national syllabus does not mention how the abilities credited to CT are going to be assessed, only what is going to be assessed. In their practice, teachers need to develop their own assessment methods and items in order to measure students' proficiency in relation to the knowledge requirements established by Skolverket. In the transcribed excerpt that follows, Malin and Elsa relate assignments they use for assessing CT:

> It depends on what you are looking for, argumentative essay, right and
>
> wrong, take a stance, they have made use of a film as an example that
>
> they can relate to, good to highlight an example that they can relate to,
>
> insert it into their own context. (Malin).

> It depends on the task, to write a book review or a movie review, not just
>
> retelling but also have options, criticism both positive and negative, a
>
> little bit from both sides. (Elsa).

Research has shown that CT teaching is most beneficial when applied to specific assignment (Mazer, Hunt & Kuznekoff, 2007). As seen above, teachers relate the use of two specific types of written assignments. Both written assignments require students to develop and support claims. Although written assignments can deliver indirect verification of CT, writing efficiency and CT are two separate constructs (Facione, 2013). The instruments for measuring one do not typically reveal the quality of the other. Therefore, teachers must construct separate measurement tools in order to avoid the danger of conflating the two concepts. Further, it is equally essential for teachers to create assignments in relation to a meaningful context. In the field of CT, many scholars

highlights the importance of context-bound items since there are no CT skills that can be learned or implemented regardless of context (Bailin, 2002, Willingham, 2007, Spicer & Hanks, 1995). Accordingly, educators need to design assignments that are context-bound in order for CT to be authentic (Brown, Afflerbach & Croninger, 2014). Malin describes a viable method for developing this type of assignment. She creates a task that allows students to reflect on a specific theme. To actualize the assignment even more, Malin reports on using a movie to highlight an example for students. In contrast, Elsa mentions using written assignments such as the different types of reviews of movies or books, which require students to use cognitive abilities such analysis and evaluation, but does not necessarily result in authentic use of CT. In order for that to occur, the review must be given meaningful context to improve student proficiency in CT (Spicer & Hanks, 1995).

4.5 Formative assessment

As Facione (1990) declares, "CT assessment should occur frequently, and it should be used diagnostically as well as summatively" (p. 17). Although none of the participants reported using diagnostic test or summative methods, both Vivian and Kevin recounted forms of formative assessment for improving students CT skills:

> It is very rare that I put a grade on a task directly, if I am not satisfied
> with the answers, they receive it (assignment) back, here you go, you
> need to think about this instead (Kevin)

> When I get their second essay back, I see, most times, that it has become
> a development, that students have embraced what I recommended, that

they have gotten an opportunity to reflect on what it is they do and what

they need to do even better. Reading comprehension is more difficult; it

is difficult to understand what this particular student perceived as

difficult with this specific text. How come this student did not succeed

with critical thinking (Vivian)

One approach to improve CT abilities is to use formative assessment. CT assessment

methods with formative value are vital to students' development as critical analytical

thinkers (Brown, Afflerbach & Croninger, 2014). This is particularly true in regards to

reading comprehension since it is a skill that evolves over a longer period of time. As

seen from the excerpt above, Vivian expressed concern in providing valuable feedback in

regards to students reading comprehension, relating a difficulty in identifying students'

weakness within the area. As demonstrated in the previous research, reading

comprehension and critical thinking is tightly woven into each other. It is an essential

part of interpretation, one of the core CT skills (Facione, 1990). Teachers play a critical

role in helping students develop comprehension strategies. Dymock (2007) states, "good

instruction is the most powerful means of promoting the development of proficient

comprehenders and preventing reading comprehension problems" (p. 163). Moreover,

providing clear CT instructions can help EFL learners improve their reading

comprehension skills (Shaaban, 2014). Therefore, in order to identify weakness and

strengths in a student's reading comprehension, teachers first must focus on providing

explicit instructions. It is only then that teachers can provide valuable formative

assessment for nurturing a critical-analytic mindset (Brown, Afflerbach & Croninger,

2014)

5. Conclusion

This study aimed to answer three questions relating to how teachers of English in Swedish upper secondary school interpret the concept of CT; through what means teachers support and scaffold their students in CT abilities; in which ways teachers assess their students CT abilities. The findings linked to the first question show that teachers operate around the concept of CT through a limited definition and scope, which is in accordance with studies done previously within the same field (Onosko, 1990; Stapleton, 2011). As for the reason behind this, there are many possible answers. The first being teacher awareness of the concept, which could be traced back to the lack of explicit courses in CT in the teacher-training programmes in Sweden, which in turn leads to teacher unfamiliarity towards the concept of CT. Secondly, it could be related to the fact that source-criticism seems to be the prevalent concept that defines CT which limits and undermines several other important aspects of CT. Finally, a possible reason is because of the generally limited use of a complete CT definition in the policy documents provided by Skolverket. In regards to the second question, although unaware of the extent that teachers engage with scaffolding students in CT abilities, the situations that they did report on demonstrate teachers' awareness of the importance of CT, their belief in that it is a teachable skill. This was done through student-centered pedagogies and formative assessment which engage students in their own learning and lead to a positive development of CT ability (Brown, Afflerbach & Croninger, 2014; Mazer, Hunt & Kuznekoff, 2007). Finally, for the third question concerned with how teachers assess student CT ability, findings revealed that teachers rarely had a concrete methodology to use for assessing student CT ability. While they were cogent regarding what kind of tasks

they formulated for students to test them with, reports of how assessment was carried through was in general limited. This could be because teachers already operate around CT with a limited definition of the concept itself, thus thorough assessment of the concept is difficult. Furthermore, what is asked of teachers to assess of students CT ability in the knowledge criteria does not completely cover all facets of CT, further impacting the limits of CT in English at Swedish upper secondary school.

Through this study, the findings reveal that the participating teachers do not remember or had not been familiarized with CT during their studies at university. Although universities in Sweden certainly involve the student teachers in CT and the fact that CT is necessary to complete the program, the question is regarding how explicit this is made considering the fact that none of the selected teachers felt they had received any training within the field. This could be a point for further research, to investigate how prepared student teachers are to deal with the task of preparing critical thinkers. Furthermore, there is a question of how already employed and working teachers should also be given a chance to receive this competence and be made aware of the critical importance of CT in EFL instruction. Another point for further research would be to grant teachers the chance to receive explicit CT instruction and a methodology to engage with it in the classroom and for assessment practices and follow these teachers through a longitudinal study to more closely investigate the relationship between familiarity of CT and the ability to help develop it in students.

The primary limitation of this study is that it relies solely on reports of teachers through interviews to gather data. A more complete study could contrast the teacher reports with evidence from within the classroom and by following the practices of

assessment more closely. Another limitation of this study is that all the participating teachers range within the same experience. Allowing for a larger variety of participating teachers could shed more light on how teachers are or have been prepared to engage students in CT from their teacher-training programmes.

There is a need for educators to familiarize themselves with CT, to understand the processes and the facets that make up the concept. This familiarity will assist teachers in developing skills within their students that will make them better readers, speakers and writers, by focusing on specific cognitive abilities and linking these together. When the teacher understands truly what it is to be a critical thinker this knowledge can be passed on to students and prepare their critical eyes for the challenges they are to face in today's fast-paced information-driven globalized world.

6. References

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Appendix A. The original interview questions

Föredrar du intervjun på engelska eller svenska

Medgivande

Deltagarinformation

- Vilka kurser i engelska undervisar du?
- Hur många år har du jobbat som lärare?
- Vad är din eftergymnasiala akademiska bakgrund?
- Har du fått någon formell utbildning i kritisk tänkande?

1. Hur tolkar du begreppet kritiskt tänkande?
2. Vilka förmågor anser du förhåller sig till kritiskt tänkande?
3. Vilken koppling ser du mellan läsförståelse och kritiskt tänkande?
4. Vilka steg tar du för att stötta dina elever i förmågorna som förhåller sig till kritiskt tänkande?
5. Vad söker du för typiska tecken på att en elev kan kritiskt granska innehåll i skriven engelska?
6. I engelska 5 och 6 kunskapskrav 3 står det "att elever kan använda text på ett [...] kritiskt sätt i den egna produktionen". Vilka former av bedömning tycker du är lämpligast för att bedöma detta?
   a. Skiljer sig processen mellan engelska 5 och 6? Hur?
7. Vilken typer av texter arbetar du med i engelskan?
   a. Vilka skillnader finns det mellan kurserna 5,6 och 7?
8. Vilket stöd får du från Skolverket eller kunskapskravens formuleringar för att kunna göra dina bedömningar elevers kritiska förmågor?

Appendix B. The interview questions translated into English

Do you prefer to do this interview in English or Swedish?

Consent

Participant information

- What courses of English do you teach?
- How many years have you worked as a teacher?
- What is your academic background?
- Have you received any formal training in critical thinking?

1. What is your interpretation of critical thinking?
2. Which skills do you subscribe to critical thinking?
3. What connection do you see between reading comprehension and critical thinking?
4. What steps do you take towards supporting your students' ability to think critically?
5. What typical signs do you look for in a student that can critically examine texts written in English?
6. In English 5 and 6 knowledge requirement 3, it says ""Students can in a [...] critical way use the selected material in their own production". Which forms of assessment do think is suitable for assessing these skills?
   a. Does the process differ between English 5 and 6? How?
7. Which type of English texts do you generally work with?
   a. What are the differences between the courses 5, 6 or 7?
8. Do you feel that you receive enough support from Skolverket or the knowledge requirement to do a fair assessment of the students' critical abilities?