Promoting written historical reasoning among undergraduate L2 students

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CHAPTER 1

GENERAL INTRODUCTION

PURPOSE OF THE STUDY

This dissertation brings together two areas of research, that while important in their own separate domains, are in critical need of being studied together. In this thesis, we study tertiary students’ historical reasoning within the context of a Content and Language Integrated Learning (CLIL) class. In order to approach teaching historical reasoning in this context, this dissertation explores the use of a cognitive apprenticeship model.

Historical reasoning has been studied from different perspectives. Wineburg (1991) identified aspects of historical reasoning, namely sourcing, historical contextualization and corroboration, as a set of heuristics that historians use when reconstructing a historical event from sources. Others have focused on students’ reasoning about and with sources in order to make written claims about the past (Monte-Sano, 2010; Nokes & De La Paz, 2018). Van Drie and van Boxtel (2008, 2018) developed a framework of interconnected aspects important when reasoning in the context of the discipline of history. In their framework of historical reasoning they define historical reasoning in terms of reaching justifiable conclusions about processes of continuity and change, causes and consequences, and differences and similarities between historical phenomena or periods. In their recent conception of historical reasoning, van Boxtel and van Drie (2018) emphasize two aspects that play an important role in the studies of this dissertation: the role of reading and writing, and the importance of students’ epistemic beliefs about history. Reading and writing proficiency plays an important role because students construct a written historical argument (using
substantive and metahistorical concepts) based upon evidence from historical documents and other historical sources. Students’ epistemic beliefs about the nature of knowledge and knowing may also play an important role when students decide how or whether to construct such arguments (Nokes & De La Paz, 2018).

Instructional methods of promoting such historical reasoning are an important area of research. Explicit instruction, especially a cognitive apprenticeship approach has shown promise for adolescents (De La Paz et al., 2017; Stoel et al., 2017). Importantly, not all aspects of historical reasoning respond similarly to instruction. While some aspects, such as sourcing, appear to respond well (Britt & Aglinskas, 2002), others such as historical contextualization, seem to be more resistant (Nokes et al., 2007) and require further study. Instructional design may need to consider how to support students’ reading and writing so that it does not become a barrier to students’ reasoning (Nokes, 2011). These aspects of historical reasoning are well-studied among secondary school students in their L1s and among those who speak an L2 proficiently. Less is known, however, about the performance of students in the tertiary context and among L2 students.

In this dissertation we focus on one particular setting, that of the tertiary Content and Language Integrated Learning (CLIL) context. CLIL is an approach to teaching in which a student learns another language, often English, and content at the same time (Dalton-Puffer, 2011). CLIL classes may take many different forms depending on the level of the students and the needs of the context (Coyle et al., 2010). This is an important context to study since CLIL is one method used in the European Union to foster the goal of learning additional languages (Eurydice, 2006). The use of CLIL in Europe is widespread and CLIL programs can now be found in the vast majority of European countries (Eurydice, 2017), including in history classes (Dallinger et al., 2016; Lorenzo, 2017; Oattes et al., 2018).
Using a CLIL approach to learn a content area through another language appears to be beneficial to students in terms of their language development. In a review of CLIL research in Europe, Pérez-Cañado (2012) concludes that students in CLIL programs benefit in terms of the development of their language proficiency in the L2, particularly in comparison to their peers in traditional language classes. Students in a CLIL history class, for example, made comparatively larger gains in listening than their non-CLIL peers (Dallinger et al., 2016). The evidence for how well students learn content knowledge within a discipline is less clear (Dalton-Puffer, 2011). In her review, Pérez-Cañado (2012) concludes that learning in a CLIL setting is not detrimental to learning course content. However, students in the CLIL history class needed additional instructional time to make similar gains in content knowledge (Dallinger et al., 2016) and primary school students in science performed slightly better in an L1 than in a CLIL class (Fernández-Sanjurjo et al., 2019). In another CLIL history class, however, year 9 CLIL students outperformed their non-CLIL peers on a content knowledge assessment, demonstrating that learning in an L2 did not harm the content knowledge of the CLIL students, and may have even helped (Oattes et al., 2020). Given these inconsistent findings, additional research that focuses on how well students in CLIL settings learn disciplinary knowledge and ways of reasoning, and how to apply it within a discipline is important (Cenoz, Genesee, & Gorter, 2013).

Studying disciplinary literacy, such as the genre of argumentative writing in history, may be a good way to explore the link between the acquisition and application of content knowledge and language in CLIL pedagogy (Dalton-Puffer, 2011; Meyer et al., 2015). In the discipline of history, significant work exists on the types of language students use when writing (Miller et al., 2014; Myskow & Ono, 2018). When writing historical narrative, for example, students are able to use a variety of cognitive discourse functions (Lorenzo, 2017). While this line of research is critical in understanding the types of language that students
produce, calls for research into the content side of the CLIL context (e.g., Cenoz et al., 2013) make it clear that further research is necessary. One focus of this research may be on students’ acquisition of the substantive knowledge of history. In this dissertation, in contrast, we focus on the skills of reasoning about history in writing.

This dissertation makes a contribution to the literature by adding a detailed description of the historical reasoning and epistemic beliefs of undergraduate L2 students, and exploring how students respond to a cognitive apprenticeship model of instruction. The studies in this dissertation take place within a CLIL context, which also provides evidence regarding how to help students in this context improve their historical reasoning and writing. Since this dissertation focuses on L2 students, it takes into consideration the role of students’ reading and writing proficiency in English.

AIM AND RESEARCH QUESTIONS

In this dissertation we set out to study the historical reasoning of a population of L2 undergraduate students in the context of a cognitive apprenticeship-based CLIL historical reasoning course, and how to foster the written historical reasoning of these students. To reach this goal, we first conducted two descriptive studies that explored the performance of students when reasoning about the reliability of primary sources and when engaged in written historical reasoning. Separately, we compared the epistemic beliefs of students and their written historical reasoning. Following this exploration, we conducted a quasi-experimental study to test our approach towards fostering written historical reasoning, particularly historical contextualization.
CHAPTER 1

RESEARCH QUESTIONS

The main research question we address in this dissertation is as follows: How do undergraduate students in a cognitive apprenticeship-based CLIL historical reasoning course reason about history in writing and what fosters the written historical reasoning of these students?

This research question is further divided into sub-questions which are organized around the four studies included in the subsequent chapters. The first study addresses research question 1 (RQ1): To what extent do undergraduate L2 students make claims supported by arguments when reasoning about the reliability of a historical source orally and in writing? What difficulties can be attributed to language proficiency?

The second study addresses research question 2 (RQ2): Does historical reasoning in L2 students’ writing improve over the duration of a CLIL historical reasoning course and is the level and improvement in historical reasoning influenced by reading and writing proficiency?

The third study addresses research question 3 (RQ3): How do students with different epistemic beliefs reason historically when writing a historical argument?

The fourth study includes the following two questions: How do undergraduate students perform on aspects of historical reasoning (claim, evidence, sourcing, corroboration and historical contextualization) in their document-based writing before and after participating in a course with explicit instruction in historical reasoning (RQ4)? What is the effect of explicit instruction in historical contextualization during a historical reasoning course on undergraduate students’ document-based writing (RQ5)?
THEORETICAL FRAMEWORK

WRITTEN HISTORICAL REASONING

This dissertation makes use of the historical reasoning framework put forth by van Drie and van Boxtel (2008, 2018). Van Drie and van Boxtel (2008)’s multi-part framework proposes that when students reason historically, it is often to *answer a historical question*, such as analyzing similarities and differences between the political systems used at different points in Roman history. These questions may include those of continuity and change, causes and consequence as well as similarities and differences. *Argumentation* is often a feature of such answers since questions in history may be ill-defined problems. In order to construct the argument, students use information from *sources* as evidence and the language of history when including *substantive concepts*. As a means of constructing the argument, students may engage in the use of *metahistorical concepts and strategies*. Examples of metahistorical concepts are historical evidence, and continuity and change. Strategies include procedural knowledge, such as the heuristics of corroboration and sourcing or analyzing the process of change in terms of tempo and impact. Finally, students must construct the *historical context* by considering the chronology, geography and social characteristics of the time period. These six interrelated components can be used as a means of studying students’ oral and written historical reasoning, and is the approach used in this dissertation.

Within van Drie and van Boxtel’s (2008, 2018) framework, this dissertation focuses mostly closely on written historical reasoning. Specifically, this dissertation investigates the aspects of written historical reasoning found in source-based writing. When students engage in source-based writing they may make an argument to address a historical question based on evidence from multiple sources, typically both primary and secondary. Source-based writing is used to evaluate students’ performance in historical reasoning in both classroom and research contexts (McCarthy Young & Leinhardt, 1998; Monte-Sano, 2010).
Because it has the potential to tap students’ historical reasoning, it is an appropriate way of both developing competency in and assessing historical reasoning (Nokes & De La Paz, 2018).

Monte-Sano (2010) has outlined several characteristics of written historical reasoning that she identified in her analysis of high school students’ source-based writing. First, it is important that students’ source-based writing includes evidence that is both factually and interpretively accurate. Inaccuracy in, for example, the chronology of events in the late Roman Republic or Augustus’ role in these events can affect the overall quality of the students’ argument. In addition, the evidence should be persuasive both in its amount and the significance of the chosen evidence. As a part of considering which evidence to use, students should consider the author by using a sourcing heuristic. The student should also corroborate by considering evidence from multiple different sources and how or whether it fits in supporting a claim. Finally, the student should situate the evidence within its historical context and interpret primary sources from the context in which they were written. These characteristics overlap with the heuristics identified by Wineburg (1991) and the historical reasoning components in the framework put forth by van Drie and van Boxtel (2008).

TEACHING HISTORICAL REASONING THROUGH COGNITIVE APPRENTICESHIP

This dissertation makes use of a cognitive apprenticeship model of instruction. Cognitive apprenticeship is a model of explicit teaching in which the student is slowly apprenticed into academic tasks, such as historical writing (Collins et al., 1991). Within their framework, the method for the cognitive apprenticeship model includes six parts. The teacher should first model expert behavior in order to make the thought process visible. For example, the teacher may think aloud while composing writing or reflecting on a complete essay. As a part of this model, the teacher also supports the student by scaffolding the task and coaching the
student through the task. As students learn, they should *articulate* their “knowledge, reasoning, or problem-solving processes” (pg. 14) and *reflect* on their performance in comparison to that of an expert. Finally, students should *explore* by creating their own problems and questions.

Explicit instruction is a well-studied model and has been found to be an effective means of instruction when teaching historical reasoning and writing (De La Paz et al., 2017; Reisman, 2012a; Stoel et al., 2017). Importantly for the context of this dissertation, L2 learners also benefit from explicit instruction (Goo et al., 2015; Norris & Ortega, 2000).

**Potential Factors Affecting Source-Based Writing**

Van Boxtel and van Drie (2018) identified several factors that shape the quality of students’ historical reasoning, including students’ interest in history, substantive knowledge, knowledge of the procedural aspects of historical analysis and argumentation, reading and writing proficiency and epistemic beliefs about history. In this study we pay attention to two factors that are considered particularly important for source-based writing in an L2, the role of reading and writing in history as well as epistemic beliefs.

*The Role of Reading and Writing in History (in an L2)*

Since the studies in this dissertation took place in the context of a CLIL classroom, the complexity of reading and writing about history are important aspects to consider when teaching historical reasoning. When reading, students must confront the complex grammar and vocabulary commonly used in history. History textbooks, for example, are written in an abstract manner (Schleppegrell & de Oliveira, 2006), which is exemplified by their use of structures such as nominalization (Martin, 1991). Furthermore, the discipline makes use of substantive concepts, such as democracy, which are both abstract and not easily
defined (van Drie & van Boxtel, 2008). In addition to the challenge of reading textbooks, students must also be able to both comprehend and interpret primary sources, which are challenging partly because of the vocabulary, structure and historical context needed to understand them (Wineburg & Martin, 2009). Nokes (2011) concludes that the resulting high cognitive load can be a barrier for students when reasoning about sources in history and should be considered when designing instruction.

Source-based writing in history, the particular focus of writing in this dissertation, can also be challenging because of the complexity of appropriately integrating multiple sources into a coherent argument. One aspect of such integration is paraphrasing the information that the student has chosen as evidence. This can be problematic when students have difficulty in understanding the sources and may lead some to stay closer to the original sources when writing (Cumming et al., 2016). When integrating sources into their writing, some L2 students copy strings of words, possibly because of comprehension or language-related difficulties (Li & Casanave, 2012; McDonough et al., 2014). This can be problematic in an interpretive discipline such as history, and should also be a factor in instruction. Studies of other aspects of students’ historical writing in an L2 have demonstrated that students are able to use features of historical writing (Lorenzo, 2017; Miller et al., 2014). Students’ performance in these studies, however, has been uneven.

**Epistemic Beliefs in History**

Students’ epistemic beliefs are an important consideration when teaching and measuring historical reasoning (Maggioni et al., 2009; Stoel et al., 2017). One theoretical approach to students epistemic beliefs is the four stage model proposed by Kuhn and colleagues (Kuhn, 2001; Kuhn et al., 2000). In this model, students progress from the objective-dominant Realist and Absolutist stages, through the subjective-focused Multiplist stage. The Realist and Absolutist stages
are marked by the belief that reality is objective and can be directly known. Those who ascribe to *Absolutists* beliefs may hold that critical thinking is possible, but use it as means of determining truth. At the next stage, *Multiplist*, students lose their belief in an objective reality, and replace it with the belief that reality is subjective. Because reality is from a knower and not an objective reality, critical thinking is no longer necessary and all opinions are equally valid. Finally, students may progress to the *Evaluativist* stage in which these objective and subjective dimensions are balanced. At this point, critical thinking again becomes relevant because it can be used to test the validity of claims.

Following the work of King and Kitchener (2002) and Kuhn and Weinstock (2002), Maggioni et al (2009) developed a three stage model of epistemic beliefs specific to the discipline of history. These stages include the *copier* stance, which is dominated by beliefs about the objective nature of history. A second stage, the *borrower*, is characteristic of a belief that history is subjective. Finally, the *criticialist* is a stance in which disciplinary tools and criteria are used to develop and support claims about the past.

Progressing through epistemic stages is a complex process. King and Kitchener (2002) report that significant change can take up to a year and occurs as more of a ‘wave’ than a steady stepwise progression. This wavelike progression may explain why students can simultaneously hold beliefs in more than one stage.

Epistemic beliefs are important to consider when describing students’ historical reasoning and planning instruction because they can affect performance (Kuhn, 2001). Students’ beliefs about the nature of knowledge and knowing may affect how well students comprehend multiple texts (Maggioni et al., 2010) or an author’s viewpoint (Barzilai & Eshet-Alkalai, 2015). Students’ beliefs may also affect how they make claims, and the types of knowledge they believe are important in justifying such claims (Greene & Yu, 2014). Because of the nature of history as a discipline that prizes written source-based
argumentation, these are important considerations that may mediate students’ performance.

**Methodological Considerations**

**Setting and Participants**
This series of studies took place at a small English-medium university in Istanbul Turkey. The university enrolls around 4000 undergraduate students and 1000 graduate students. Approximately half of all undergraduate students major in engineering. While all undergraduate students must pass a series of history courses as part of a liberal arts-style approach, the university does not offer an undergraduate degree in history.

The university administers an English proficiency exam to incoming undergraduate students. Those who do not pass the exam must take coursework in the university’s intensive English preparation program. Most students spend one to two semesters in the program. Students are around 18-19 years old while in the program. At the time of data collection, regulations from Turkey’s Higher Education Council stipulated that all students be capable of completing the intensive English program in one calendar year regardless of initial English proficiency, and limited how long a student may study in the program. The exit of the intensive English program is a B2 level according to the Common European Framework of Reference for Languages (CEFR).

The studies in this dissertation were conducted with students in the intensive English program at the B2 level who were enrolled in a CLIL historical reasoning course. This course is a standard part of the B2 level course program and serves as a bridge between the intensive English program and the English-medium university.

Students in Turkish schools closely follow the Turkish Ministry of National Education curriculum which includes three years of required courses in
history at the secondary school level (T. C. Milli Eğitim Bakanlığı, 2018b). History in Turkish secondary schools is largely taught through a transmission mode and all textbooks must be approved by the Turkish Ministry of Nation Education (Yildirim, 2006). Historical skills such as the use of chronology and interpretation are nominally a part of the curriculum (Avaroğlu & Demir, 2015). An analysis of teacher-developed high school history tests in Turkey, however, showed that the assessments focused on factual recall (Demircioglu, 2009).

English as a foreign language is a mandatory subject for all four years of Turkish secondary schools (Kirkgoz, 2009). The most recently published curriculum requires four hours of classes weekly and outlines the skills and topics taught at each grade level (T. C. Milli Eğitim Bakanlığı, 2018a).

The features of students’ native language, Turkish in the case of this dissertation, may have an impact on reading and writing in English. There are limited structural similarities between English and Turkish, however, structural differences exist. Many Turkish words are formed through agglutination, in which meaning is built by adding a series of suffixes (Durgunoglu, 2006). This type of language requires careful reading to extract the full meaning. Additionally, sentence order, prepositions and certain verb tenses are used in fundamentally different ways in English than in Turkish. When writing in English, Turkish students commonly make errors in these areas (Abushihab, 2014; Koroglu, 2014).

Historical Reasoning Course

The studies in this dissertation are conducted within the context of an existing historical reasoning course that was originally designed by the author of this dissertation. This course serves as a bridge between the intensive English program and the English-medium faculties. It was put into place to help students better adapt to the types of reading, writing, and reasoning expected of them in
first year required history courses. A broad outline of the course is provided below, and is further explained in subsequent chapters.

The course has two primary goals that drive the instructional choices. The first goal is focused on developing students’ proficiency in historical reasoning, especially written historical reasoning. The second goal is developing student’s English reading and writing proficiency, particularly in the context of source-based argumentative writing in the field of history.

This CLIL course uses a cognitive apprenticeship model to teach students about written historical reasoning. Specifically, the course introduces students to the concepts of argumentation (focusing on claim and evidence), historical contextualization, and the heuristics sourcing and corroboration. Using principles of the cognitive apprenticeship approach, instructors first model an aspect of historical reasoning. For example, when students first learned about the concept of claim and evidence, they were presented with a set of criteria for writing claims and model claims. Next students engage in guided practice, such as by analyzing the quality of sample claims based on the criteria. Finally, students practice independently by writing their own source-based essay with a claim. Students had multiple opportunities throughout the course to practice and receive feedback on each element of written historical reasoning. Since the course took place in a CLIL context, we also included explicit instruction in the language commonly used in source-based writing in history, including sample language models of the aspects of historical reasoning featured in the course.

The topic chosen for this course was the late Roman Republic and early Empire. In particular, we focused on gladiators, and how the topic of gladiators could be used as a window into the socioeconomics, politics, and cultural values of the period we chose. We considered two factors in the choice of topic. First, since the historical reasoning course served as a bridge between the intensive English preparation program and required undergraduate history courses, we chose a topic that would be revisited during the following semester. Second, we
chose a topic that was ‘other’ enough for students to be able to critically reason about, a consideration important in this particular context. Another lesser, but still important consideration was that gladiators was the topic of a popular television show at the time we began piloting the course, and therefore, highly engaging for students.

**Methodology**

Scholars have both described and experimentally tested students’ performance in historical reasoning. Qualitative studies describing features of students’ reasoning have made use of approaches such as think aloud protocols (Wineburg, 1991) and textual analysis (Monte-Sano, 2010). Quantitative and mixed method-focused studies have added measures of students’ content knowledge and historical reasoning skills (Reisman, 2012a). Experimental and quasi-experimental studies that test the effectiveness of pedagogical approaches are common (De La Paz et al., 2017; Nokes et al., 2007; Reisman, 2012a; Stoel et al., 2017; Van Boxtel & Van Drie, 2012).

The studies in this dissertation focus on the study of historical reasoning in the context of writing. Because of this specific focus, the studies in this dissertation focus primarily on the analysis of students’ written work, building on the work in written historical reasoning of Monte-Sano (2010) and van Drie, et al. (2015).

Because of the different approaches used in these studies, several types of data are used in order to address the research questions. The studies in this dissertation first describe how students perform in aspects of historical reasoning, particularly in consideration of their English proficiency and epistemic beliefs in history. Based on these descriptions, we test the effectiveness of an intervention.

To address RQ1, we use a qualitative approach. Students’ think aloud transcripts and their written answer to the task completed in the think aloud were
collected. Students source-based writing was also collected. The collections of these different types of data allow for the comparison of students’ source evaluation in different modes.

RQ2 is addressed through the administration of a measure of students’ English proficiency in reading and writing. This is combined with students’ source-based writing. This data allows us to measure the proficiency of students’ written historical reasoning, and the extent to which their English proficiency appears to play a role.

RQ3 addresses students epistemic beliefs in history and their connection to students’ written historical reasoning. Students’ epistemic beliefs in history were measured through the use of a discipline-specific survey and a task-based interview. These measures are compared to students’ source-based writing to understand the potential influence of epistemic beliefs on written historical reasoning.

RQ4, which questions the written historical reasoning of students before and after a CLIL historical reasoning course with a cognitive apprenticeship approach, uses students’ source-based writing as the main source of data.

The final question, RQ5, investigates the effectiveness of an instructional approach though the use of a quasi-experimental intervention study. This study makes use of students’ source-based writing, a pre-course measure of interest in history and a post-course measure of students’ content knowledge. The combination of these different data sources allows the study to better investigate potential factors on students’ performance.

**Organization of the Thesis**

Evaluating historical sources for reliability, an aspect of sourcing, is a key feature of historical reasoning. While well-studied among proficient and L1 students, the performance of L2 students and the role of their English proficiency is not as
well understood. In chapter 2, we examine the oral and written historical reasoning of undergraduate L2 students when evaluating historical sources for reliability and writing with historical sources. This study first examines students’ oral sourcing through think aloud protocols. Using these think alouds, the study describes students’ overall sourcing proficiency and the different arguments students use when assessing reliability. Next, students’ oral answer is compared to their written answer of the same question. Finally, we trace the use of the same historical sources in their source-based writing. Based on these analyses, we identify difficulties that students encounter and the pedagogical implications for teaching source evaluation.

In a study of undergraduate L2 students participating in the cognitive apprenticeship-based CLIL historical reasoning course, chapter 3 examined students’ changing performance on historical reasoning and how this was affected by their English reading and writing proficiency. Students engaged in written historical reasoning when answering a historical question by using sources and heuristics such as historical contextualization and corroboration. The course was designed based on principles likely to enhance historical reasoning and second language acquisition, and included an overt focus on language form. A latent growth curve analysis was used to investigate the effect of students’ English language proficiency on their source-based writing and the changes in their reasoning over the duration of the course.

Chapter 4 is a descriptive study focusing on epistemic beliefs in history. This study investigates undergraduate students’ epistemic beliefs in history and explores the relationship between students’ beliefs and their performance in written historical reasoning in the context of a historical reasoning course. We measured students’ expressed epistemic beliefs in history through a discipline-specific survey, which we compared with students’ performance when writing a source-based historical argument. A subset of students also participated in a task-
based interview to investigate more tacit epistemic beliefs related to the second-order concept, accounts.

Chapter 5 builds on the lessons learned about students’ written historical reasoning to focus our explicit instruction more closely on historical contextualization, an area that was profoundly challenging for students. This study investigates the historical reasoning of undergraduate L2 students as measured in their argumentative document-based writing. The study focuses specifically on students’ performance in written historical contextualization before and after participating in a historical reasoning course. The CLIL course was designed using a cognitive apprenticeship model and was based on principles likely to facilitate students’ written historical reasoning. Conducted as a quasi-experimental study, students in an experimental condition received explicit instruction in historical contextualization, while those in the control group participated in a version of the course without a focus on historical contextualization.

In chapter 6, we discuss the main findings of each study, general conclusions that we are able to draw, methodological considerations, and implications for teaching written historical reasoning to students learning in an L2. This chapter also considers the strengths and weaknesses of the studies and potential areas of future research.