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Content Knowledge According to the Perceptions of Department Chairpersons

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Abstract

Content knowledge is important to the success of any teacher. A lack of content knowledge possessed by a teacher results in challenges for both teaching and learning. The purpose of this study was to analyze the perceptions of social studies department chairpersons throughout the state of Connecticut in regards to the #026 History/Social Studies 7-12 certification. The topics explored in the literature review of this paper comprise the importance of content knowledge, the sufficiency of social studies teacher preparation programs, and the benefits of content-based online professional development. The research questions asked included whether or not the #026 certification encompasses too many content categories for social studies teachers and whether this results in a lack of content knowledge in social studies departments throughout the state. This study also analyzed how such a numerous amount of content categories may potentially lead to scheduling and staffing conflicts faced by department chairpersons. It also explores which content categories social studies teachers come into teaching with the least and the most amounts of content knowledge in and how teachers gain content knowledge required to effectively teach. This study gathered data from social studies department chairpersons throughout the state of Connecticut.

The data gathered showed that 5 out of the 8 content categories encompassed within the #026 certification were generally a concern for social studies department chairpersons because teachers lack content knowledge needed to effectively teach classes in these categories. This problem is exacerbated with the increased enrollment of students in AP and other early college experience classes. The data also revealed that there are limited professional development opportunities being offered to teachers that lack content knowledge in the classes they are being assigned to teach. This study also explores the

possibility of utilizing personalized, individualized, online professional development to help provide social studies teachers with training in content knowledge needed to effectively teach in the modern social studies classroom.

Table of Contents

Chapter 1: Introduction

Background

Content knowledge is essential to the success of any teacher (Harris and Bain, 2010). Educational psychologist Lee Schulman rediscovered the importance of content knowledge in his research regarding Pedagogical Content Knowledge (PCK) in the mid 1980s. Through his research, Schulman uncovered an important educational truth that has always existed: if a teacher does not have an adequate grasp of content his or her students' understanding of the content will be negatively impacted. "Common sense asserts that teachers need content knowledge to teach. Most everyone subscribes to the axiom that teachers cannot teach what they do not themselves know and understand" (Harris and Bain, pg. 9).

There has been an extensive amount of research done regarding the inadequacy of many teacher preparation programs in the 21st Century to adequately prepare teachers for the rigor of the modern classroom (Harris and Bain, 2010; Swansinger, 2009; Bain and Moje, 2012). This is especially true in the area of social studies, particularly because of the breadth of the subject matter (Swansinger, 2009). These factors contribute to challenges regarding the certification process for social studies teachers. This study will examine the efficacy of the #026 History/Social Studies 7-12 certification in Connecticut in the area of content knowledge.

Statement of the Problem

Social studies is a very broad field in secondary education. In Connecticut, to be certified as a social studies teacher one must obtain the #026 History/Social Studies 7-12

certification. After obtaining the #026, a teacher is certified to teach any of the following subjects: United States History, World History, Government, Civics, Political Science, Geography, Economics, Psychology, Sociology, and Anthropology. This research examined whether social studies department chairs perceive the #026 certification as too broad and whether or not Social Studies teachers that have been certified are prepared in the content knowledge required to adequately teach this large variety of courses. According to the Connecticut State Department of Education's website (www.sde.ct.gov) the following are the requirements to be endorsed with History and Social Studies, 7-12 (#026):

1. A major in history/social studies or 30 semester hours of credit in history and social studies, including: - A minimum of 12 credits in history, including:
   o » a course in United States history;
   o » a course in Western civilization or European history; and
   o » a course in non-Western history.

2. Coursework in at least three of the following areas:
   o » political science;
   o » economics;
   o » geography;
   o » sociology;
   o » anthropology; and
   o » psychology.

3. Passing score on Praxis II – Social Studies (#5081)

According to the Connecticut guidelines candidates are required to take a single course in United States History, Western Civilization, and a non-Western history. After taking one course in each of these three history content areas, a teacher is considered prepared to teach high school-level United States History, Western Civilizations, and non-Western history classes. A teacher is also required to have coursework in at least *three* of the *six* areas listed above under the second point. Therefore, there are a full *three* other disciplines a certified social studies teacher can completely avoid taking classes in and yet can still be certified to teach classes in all six disciplines. All of this suggests that there is not an adequate level of content knowledge preparation required of a teacher before being certified with the #026 History and Social Studies, 7-12 certification.

Thesis Study

The purpose of this study was to examine the perceptions of social studies department chairpersons throughout the state of Connecticut regarding the efficacy of the #026 Certification. The study examined whether social studies department chairs perceive the social studies certifications as too broad, and whether or not these individuals believe the requirements should be made more specific. An additional reason why this study was important is because of the growing number of Advanced Placement (AP) course offerings and increased AP enrollment. AP teachers are expected to teach college level courses to high school students. Considering the increased content knowledge demands of AP classes, it may be that the more general content knowledge requirements of Social Studies certification will prove to be inadequate for the increased rigor of AP level courses.

Both qualitative and quantitative data collection methods were used in my research. My data primarily came through the use of surveys and both open-ended survey questions (*qualitative*) and closed-ended survey questions (*quantitative*). I obtained the e-mail addresses of social studies department chairpersons throughout the state of Connecticut and sending them a web-based questionnaire. The open-ended survey questions will be asked according to a Likert Scale and the closed-ended survey questions will ask for a brief written response. The quantitative data collected through the survey will be analyzed using SPSS and Microsoft Excel. The qualitative data collected will be analyzed using NVivo.

The research questions for my study are as follows:

1. Do social studies Department chairpersons in Connecticut believe Connecticut state requirements for certification in social studies is adequate?

2. Do social studies department chairpersons believe the current requirements for certification in social studies are sufficient in terms of content knowledge preparation?

These questions framed my research and shaped the questions of the survey instrument that was used in my research.

Summary

Chapter one provided an introduction to my research. It did this by providing a brief background to my research problem. It then went on to specifically state the research problem, which will give shape to my research. It then goes on to state the specific purpose of the study and the importance of the study. It then introduces the research questions and provides an overview of the research design. The chapter

concludes by explaining assumptions and limitations, defining terms, and stating expected findings.

Chapter two is a literature review that has shaped the research questions for this study. The literature review begins with a theoretical framework based on the importance of content knowledge for teaching. It then presents a brief summary of research in regards to both the historical problem of inadequate preparation for Social Studies teachers and the current state of teacher preparation programs. It then goes on to examine the possible importance of professional development that is shaped by the individualized content knowledge needs of teachers.

Chapter three presents the philosophical framework and possible researcher biases. It also presents the interpretive framework for the study, which is pragmatism. It then goes on to state the purpose of the study and the research design, which is practical action research. The chapter then goes on to explain the data collection methods that will be used in the research, which will be according to a mixed methods design. It then presents the population, survey design, survey technique, and survey development for the quantitative research. It then explains the data sources for qualitative research and how the data will be gathered and organized. It then presents analysis methods and tools for both quantitative and qualitative research. The chapter concludes with how reliability and validity will be measured by using triangulation, external audit, and peer debriefing.

Assumptions and Limitations

It is important for researchers to be open about the assumptions and limitations of their research. The theoretical framework for this study is that content knowledge is critically important for good teaching. This assumption is based both on my own

experience and educational research (see Chapter 2). These factors may have contributed

to a topic-specific assumption regarding the merits of content knowledge. A limitation to

this study is that I only surveyed social studies department chairpersons and not other

stakeholders such as school principals or other policy makers.

Definition of Terms

#026 History/Social Studies 7-12 Certification: is a certification code specific to

Connecticut. Teachers that are certified under the #026 are certified to teach the

following subjects in Connecticut: United States History, World History, Government,

Civics, Political Science, Geography, Economics, Psychology, Sociology, and

Anthropology.

Social Studies Department Chairperson: is a position in most high schools where a

teacher with a reduced class load supervises a department of teachers in the same

discipline. For example, at Trumbull High School the department chairperson supervises

a department of around 20 teachers while simultaneously teaching three class sections.

The duties of department chairpersons vary by district but often include the following:

curriculum oversight, department budget, teacher observations, hiring of new teachers,

student teacher and internship coordination, etc.

Expected Findings

In my findings I expected to find that social studies department chairpersons have

difficulty finding teachers to teach specific classes every year based on a lack of content

knowledge expertise of their respective departments. I also expected that chairpersons

believe that content knowledge is important for effective teaching and they would

generally state that the #026 is too broad to be an effective measure of expertise in the

content categories of social studies education. I also anticipated that increased AP

enrollment would exacerbate these concerns.

Chapter 2: Literature Review

Introduction

This literature review will investigate the importance of content knowledge for effective pedagogy, current research in regards to the state of social studies teacher preparation programs, and the potential of online content based professional development. The following questions will be considered:

1. To what extent is knowledge of content important to effective teaching?

2. How effective are teacher preparation programs in preparing social studies teachers with an adequate amount of content knowledge for the modern classroom?

3. How might personalized, individualized, online professional development help teachers grow in content knowledge?

I began my search for literature in the Educational Resources Information Center (ERIC) using a combination of the keywords 'world history,' 'pedagogy,' and 'ability.' This only produced three results. I then removed 'ability,' and this search produced 63 results, none of the articles were promising. I then searched ERIC only using the keyword, 'world history' which resulted in 3,148 results. This was too overwhelming. I then added the keyword, 'pedagogical content knowledge' and I came across an article titled, *Pedagogical Content Knowledge for World History Teachers: What is It? How Might Prospective Teachers Develop It?* by Lauren McArthur Harris and Robert B. Bain. This article provided the keyword suggestions of, 'teacher preparation' and 'cognition.' I used these keywords to search and find numerous articles. I then proceeded to read

through the references listed at the bottom of this same article. I searched for the

referenced articles on the Educational Resources Information Center, JSTOR, and Google

Scholar. I continued to search using ERIC using the keywords 'professional

development,' 'content knowledge,' 'individualized.' My efforts resulted in the discovery

of twenty scholarly articles and dissertations on topics related to my study. Each article

provides various levels of potential usability related to my stated interests.

Background of the Problem

Social Studies is a very broad field in secondary education. Social Studies teacher

are expected to teach a vast variety of different content areas. All of these various content

areas fall under the "026 History & Social Studies, 7–12" Certification in Connecticut.

According to the Connecticut State Department of Education's website the following are

the requirements to be endorsed with "History and Social Studies, 7-12 (#026):

> • A major in history/social studies or 30 semester hours of credit in history and
> social studies, including: - A minimum of 12 credits in history, including:
>
> > o » a course in United States history;
> > o » a course in Western civilization or European history; and
> > o » a course in non-Western history.
>
> - Coursework in at least three of the following areas:
>
> > o » political science;
> > o » economics;
> > o » geography;
> > o » sociology;
> > o » anthropology; and
> > o » psychology.
>
> • Passing score on Praxis II – Social Studies (#5081)

After looking through the requirements one will notice that candidates are required to

have a minimum of 12 credits in history including *a course* in United States history, *a*

course in Western Civilization or European History, and *a course* in non-Western history. Essentially candidates are required to have *"a course"* in each of these three very broad areas of history. The website does not specify whether the course that candidates take is required to be a survey or a more specific course. Therefore, if a student took a survey course such as Western Civilizations 101 it would count toward the requirement of *"a course"* as much as if they took a course on the French Revolution. In addition candidates are required to *have coursework* in at least three of the following areas: Political Science, Economics, Geography, Sociology, Anthropology, and Psychology. The phrase *"have coursework"* is very vague and unspecific. Therefore to fulfill the minimum requirements a student could take one course in three of the areas and take no courses in any of the other three.

Mentioned last on the list is that Social Studies Teacher candidates in Connecticut must pass the "Social Studies: Content Knowledge" test (Praxis II). Students must pass with a score of 162 according to the Connecticut State Department of Education Website. The Praxis II covers a great variety of disciplines. Upon completing their coursework, outlined above, and passing the Praxis II, teachers are certified to teach: World History, American History, European History, Economics, Political Science, Sociology, Psychology, Anthropology, Philosophy, Geography, World Religions, Justice and Law, and any other classes that may fall under the category of "Social Studies" in each teacher's particular school. There is no place on the Connecticut State Department of Education's website that specifically states what classes Social Studies teachers in Connecticut are technically certified to teach. Questions regarding Social Studies Teacher's content knowledge have become more pressing recently given the increased

emphasis on AP Course enrollment in districts across Connecticut. More and more content demands are being put on teachers and AP Classes are technically college level courses. Therefore, many teachers are put in a position where they are expected to teach college level courses on content that they book barely any college level courses on themselves.

Candidates who have fulfilled the specified requirements stated above could be granted with the "026 History & Social Studies, 7–12" Certification without taking any courses in classes they are certified to teach. They could, technically, take no courses in Political Science, Economics, Geography, Sociology, Anthropology, or Psychology and still be certified to teach these courses. A hypothetical but not unrealistic scenario would be to have a teacher who took no Psychology courses on the college level teach AP Psychology. Or a teacher who took only one European history course in college may be required to teach AP European History. Many other scenarios could be presented here but these two will have to suffice. Essentially, teachers can be certified to teach courses they have not been trained to teach or required to take courses on in college. And these same teachers may be required to teach college level courses in subjects they have never taken college classes in themselves. After analyzing the stated requirements for Social Studies teachers in Connecticut it is clear that the requirements are both inadequate and lax in providing expectations that would compel teachers to adequate preparation for the rigor of the modern classroom. Content knowledge is an important factor in the success of a teacher (Harris and Bain, 9). It is important that teachers are adequately prepared for the demands of the 21st Century Social Studies classroom. It is critical to provide teachers with preparation to teach content, especially for those content areas that teachers were not

exposed to in their teacher preparation programs or as a function of the undergraduate content course experiences. In order to provide this content knowledge, professional development is a key tool.

Theoretical Orientation for the Study:
The Importance of Content Knowledge for Effective Teaching

Content knowledge and specifically *pedagogical content knowledge* is essential to the success of any teacher (Harris and Bain, 9). Pedagogical content knowledge is a concept that was highlighted beginning in the mid 1980s by Lee Shulman. Schulman stated, "...distinguishing between content as it is studied and learned in disciplinary settings and the 'special amalgam of content and pedagogy' needed for teaching the subject" (Ball, et al. 1). This "special amalgam of content and pedagogy" defines pedagogical content knowledge. What was the most striking about Schulman's research is how much it went against the patter of research in the field of education during his time. Ball (et al. 1) posited that:

> A central contribution of the work of Shulman and his colleagues was to reframe the study of teacher knowledge in ways that included direct attention to the role of content in teaching. This was a radical departure from research of the day, which focused almost exclusively on general aspects of teaching such as classroom management, time allocation, or planning. (Ball et al. 1)

Schulman had essentially brought back the importance of *content* to teaching. Before he did this, educational research was focused on *how* to teach but not much on *what* to teach.

"Shulman and his colleagues argued that high quality instruction requires a sophisticated professional knowledge that goes beyond simple rules such as how long to wait for students to respond" (Ball et al. 1). The concept spread through the world of educational research like wildfire. "Thousands of articles, book chapters, and reports make use of or claim to study the notion of pedagogical content knowledge in a wide variety of subject areas…and, such studies show no signs of abating. Rarely does an idea — or a term — catch on at such a scale" (Ball et al. 3). The concept of pedagogical content knowledge has had widespread appeal in the world of education reform for a variety of reasons. Ball (et al. 3) stated:

> The continuing appeal of the notion of pedagogical content knowledge is that it bridges content knowledge and the practice of teaching, assuring that discussions of content are relevant to teaching and that discussions of teaching retain attention to content. As such, it is the unique province of teachers — a content-based form of professional knowledge. (Ball et al. 3)

Schulman had uncovered an important educational truth that has always existed: if a teacher does not have an adequate grasp of content their student's understanding of the content will be negatively impacted. "Common sense asserts that teachers need content knowledge to teach. Most everyone subscribes to the axiom that teachers cannot teach what they do not themselves know and understand" (Harris and Bain, 9).

Review of Research Literature

Section A: The Historical Problem of Ineffective History Teachers

Robert B. Bain writes, "Americans have long been concerned about the quality of history instruction offered in the public schools, and, consequently, by the ways we prepare our teachers of history. Every generation has pointed to some crisis in history education, and then placed part of the blame on the education of history teachers" (Bain, 513). Observations of this phenomena stretch back to the 19th Century pioneering American psychologist and educator, G. Stanley Hall. In his day, Hall was "Convinced that no subject so widely taught is, on the whole, taught so poorly, almost sure to create a distaste for historical study - perhaps forever" (Bain, 513). For reformers such as Hall "the heart of the problem was the number of unprepared teachers using ineffective methods that turned history into the driest of school subjects" (Bain, p. 513).

Critics of teacher preparation programs for history teachers have been relatively consistent over time. Education reformers Edward Channing and Albert Bushness Hart wrote in 1896 that it was the "very superficial" system of teacher preparation, one that lacked "the life-giving contact with a variety of material, including [historical] sources" and kept teachers from the historical knowledge and pedagogical skills needed to "stimulate the pupils" (Bain, 513). Bain refers to a study by Michael Henry who concluded after fifty years of American worries about history teaching:

That, despite reformers efforts, "critics have shared almost identical concerns about history" in our schools. Reformers regularly attacked the "combination of poor textbooks and the age-old problem of inadequate teacher training," thus giving certain immutability about the view of history in the schools." Or, as one

reviewer noted in comparing reformers' views in the 1890s with those of the

1990s, "what goes around, comes around."' (Bain, 514)

Section B: The Current Inadequacies of College Programs in Preparing Teachers With Content Knowledge for the Modern Social Studies Classroom

There has been an extensive amount of research done regarding the inadequacy of

teacher preparation programs even in the 21st Century, and the failure of teacher

preparation programs to adequately prepare teachers for the rigor of the modern

classroom (Harris and Bain, 9). This is especially true in the area of social studies.

According to Harris and Bain, this trend is the result of decisions of policy makers about

the type of knowledge required to be a successful teacher:

> The first and most widely held view among the public and policymakers centers
>
> around the amount of content knowledge teachers possess in the subject areas in
>
> which they teach. Such concerns typically equate content knowledge for teaching
>
> with content knowledge as defined by universities for majors and minors. Hence,
>
> university course work has become the proxy for measuring the content
>
> knowledge required to teach subjects in most states. (Harris and Bain, 9)

Jacqueline Swansinger published an article that was particularly critical of New York

States' history teacher preparation programming. Swansinger stated:

> The social studies teacher preparatory program offers a broad social studies
>
> curriculum (political science, economics, history, psychology, sociology) making
>
> it less than ideal for ownership by any one department. The two departments most
>
> frequently associated with social studies teacher training are education and

history. Naturally, education departments emphasize education courses, practicum, and student teaching, but the discipline content is organized by the history department (or in one case, political science) and rarely reflects an awareness of world history as a sub-field. (Swansinger, 93)

Swansiger goes on to write that "overall, most programs simply required six credits outside of European and U.S. history (as is the case in Connecticut as stated above). A student could choose to take more through electives, but not because the departments visualized an essential connection to the classroom" (Swansiger, 93). Swansiger describes a situation that is common to many social studies teachers who graduate from a college preparation program. Many will graduate with only six credits outside of European and U.S. history and then be required to teach non-Western history, psychology, sociology, economics, political science, or any other possible class within a social studies department with inadequate content knowledge of the content themselves. What follows is a struggle to somehow learn content independent of college preparation programs, often in the midst of the first year of teaching. This, coupled along with the increased level of AP (Advanced Placement) level social studies classes, leaves many new social studies teachers faced with the difficult prospect of teaching a college level course in a subject they did not take any courses on in college themselves.

Robert B. Bain and Elizabeth Burr Moje conducted a study of teacher preparation programs with a focus on social studies preparation programs for pre-service teachers. Pre-service teachers are college students who are attending college with the intention of entering the teaching field upon graduation. Their research concluded that the catalyst of the problem is how teacher preparation programs are organized. "Most teachers learn to

teach in three disconnected 'lands'- colleges of arts and science, schools of education, and K-12 classrooms. Each of these instructional continents offers settings for pre-service teachers to develop important resources. However, there is little to help pre-service travelers navigate within and bridge across these spaces" (Bain and Moje, 62). As a result, Bain and Moje conclude that, "Teacher education in the U.S. suffers from a form of continental drift with deep fault lines." (62) These three disconnected 'lands' are particularly problematic in social studies education:

> Consider, for example, learning to teach secondary history or social studies. The required sequence comprises ill-organized sets of educational experiences in different spaces (e.g., history seminars, education classes, high school classrooms), for different purposes (i.e., to learn history, to learn to teach history, to observe classrooms), and led by people who don't work with one another (history professors, education professors, and cooperating teacher mentors) and may never even have met. (Bain and Moje, 62)

Unfortunately this mode of preparation is not an exception but the norm that pre-service teachers go through before entering the classroom. "These compartmentalized and loosely coupled field experiences, liberal arts classes, and professional education courses are typical" (Bain and Moje, 62). Even in spite of these challenges it is not impossible for a pre-service teacher to emerge from these preparation programs prepared to enter the classroom, but even in these cases it is mostly in *spite* of these programs and not *because* of them. "Although each space contributes to learning, each does so in episodic ways that essentially require the pre- service teacher to construct the connections. In short, the person least equipped to navigate among and across these

22

different sites has the task of coordinating disparate experiences, concepts, and discourses into a meaningful and useful whole" (Bain and Moje, 62-63). The solution to this problem has not been clear and various education reformers have suggested radically different solutions to the problem:

> Some reforms have argued for more content knowledge in teacher preparation and have sought policies to ensure prospective teachers spend more time studying history with historians. Others have argued that content knowledge, while necessary, is not sufficient to design and enact effective and interesting lessons. Teachers, therefore, need to devote more attention to their pedagogical work in schools of education or with master history teachers. Still other reforms and reformers hold that teaching is a practice best learned in practice, and thus argue for more practical experiences in classrooms with students; indeed, some even urge bypassing education schools entirely. (Bain, 514)

An area where education reformers and researchers are relatively silent is concerning how professional development may be used as a tool to make up for the inadequacies of teacher preparation programs. It is certainly not true that teachers have no ability to learn anything else after they have graduated from their pre-service preparation program. Content knowledge is critically important in order for educators to be successful and their opportunity to learn content is in no way not restricted to the college classroom alone. And there may be a no more appropriate place to further growth in content knowledge than through professional development.

Section C: The Potential Role of Professional Development in Rectifying Inadequate College Preparation Programs in the Area of Content Knowledge

Much modern professional development does not focus on teacher growth in content knowledge. Ball (et al. 4) believes that this is because there is a lack of applying the findings of the importance content knowledge to help improve aspects of education:

> In particular, the field has done little to develop measures of [content] knowledge and to use these measures to test definitions and our understanding of the nature and the effects of content knowledge on teaching and learning. Overall, the literature uses the idea as though its theoretical foundations, conceptual distinctions, and empirical testing were fait accompli. (Ball et al. 4)

The development of content knowledge should be more than a theoretical foundation. It must go beyond being merely *theoretical* and become *applicable* in many areas of education, including professional development. Ball goes on:

> Lacking adequate definition and empirical testing, the ideas are bound to play a limited role in revamping the curriculum for teacher content preparation, in informing policies about *certification* and *professional development*, or in furthering our understanding of the relationships among teacher knowledge, teaching, and student learning. Without such work, the ideas remain, as they were twenty years ago, promising hypotheses based on logical and ad hoc arguments about the content people think teachers need. (Ball et al. 4)

This is a call to more research in regards to how content knowledge can play a role in informing policies about certification and improving professional development. Up to

this point research in this regard has been scarce because not many educational researchers focus on the importance of content knowledge and how it could be applied to improve various aspects of education. A much more vast corpus of literature has been devoted to *aspects of teaching* instead of *content knowledge*. "While teacher content knowledge is crucially important to the improvement of teaching and learning, attention to its *development* and study has been uneven. Historically, researchers have focused on many *aspects of teaching*, but more often than not scant attention has been given to how teachers need to *understand the subjects they teach*" (Ball et al. 1).

More research is required in the area of how content knowledge can be applied to professional development. To not do so would be to essentially ignore many important findings in educational literature and research. According to Jennifer Merriman Bausmith and Carol Barry after "examining the literature related to professional development more generally, the past two decades of research brought a consensus around the following features that constitute effective professional development: *a focus on content*, active learning, coherence, duration, and collective participation" (Bausmith and Barry, 176). The importance of continued growth in content knowledge is not new. Bausmith and Barry go on to write, "The notion that teachers need to have deep knowledge of both the content they are teaching and how students learn that content is not new…An entire generation of researchers subsequently examined in great detail what expert pedagogical content knowledge looks like across a range of disciplines such as math, science, and history" (Bausmith and Barry, 176).

An example of a lack of focus in professional development on content knowledge and development is seen in the modern Professional Learning Community (PLC), which

serves as a popular model for much professional development. The PLC model lacks in the area of enhancing the growth of content knowledge for teachers. Bausmith and Barry concluded that features of PLCs aligned with evidence of effective professional development (i.e., active learning, duration, training over extended time periods, and teacher collaboration) have been embraced widely by practitioners (Stoll et al., 2006). However, the research on *subject matter content* and *how students learn that content* is not typically sought out by teachers (Hiebert, Gallimore, & Stigler, 2002), nor is it regularly addressed in the literature on PLCs (Bausmith and Barry, 176). Professional development (PD) is an essential means of supporting teachers and furthering teacher learning. "Multiple national policy initiatives have been based on expert assertions that high-quality instruction is a critical driver of improved student out- comes in public K–12 schools" (Goldenberg, et al. 288). In the rush of each school year professional development serves as the means of improving teacher instruction. But "despite this rhetorical commitment, high quality professional development opportunities for teachers remain in short supply, and our empirical knowledge base about how best to design and deliver high quality learning experiences for a diverse and busy population of teachers is limited" (Goldenberg, et al. 288). The question that continues to trouble educational reformers and policy makers is exactly *how* professional development can be used to the greatest advantage.

Research shows that "there is also broad consensus that teachers need sustained support while on the job in order to perform at a consistently high level, and that over long professional careers, all teachers will need opportunities to deepen their content knowledge, reflect on their practice, and experiment with new instructional practices"

(Goldenberg, et al. 288). As this quotation notes, teachers need *sustained* support while on the job. Teacher preparation programs should not be the only means that teachers have had to learn content knowledge. All teachers need opportunities to deepen their content knowledge in a *consistent* and *sustained* way. The key criteria for professional development that leads to improved teaching and learning in the classroom entail:

> Both deepening *subject-matter knowledge* and promoting *coherence* across multiple professional development experiences have been tied to improved practices in the classroom, and experiences that provide opportunities for *active learning*, encourage *collective participation*, and are of *sufficient duration* have been tied to relatively more robust outcomes than have other programs. (Goldenberg, et al. 288)

Therefore, professional development should be focused on *subject-matter knowledge* instead of on other learning that does not contribute to the furthering the content knowledge of teachers. Professional development should be coherent. It should not be constantly in flux and should not lack a systematic trajectory. Professional development should also promote *active learning*. Often, professional development comes in the form of teachers being expected to sit *passively* as an expert on, say, "classroom management" lectures them on how to improve their classroom practices. There instead should be *collective participation*, rather than collective passive reception. And finally, professional development should be of a *sufficient duration*. It should not be fleeting, here today and gone tomorrow. Newly introduced initiatives should not be overridden the following year with a different initiative. According to Karen Koellner and Jennifer Jacobs:

There is an emerging consensus as to what high-quality, effective PD looks like

(National Academy of Education, 2009). In one recent review of the literature,

Borko, Jacobs, and Koellner (2010) presented a synthesis of the characteristics of

high-quality PD, organized around *content*, *process*, and *structure*. With respect

to content, research highlights the importance of focusing the PD on students'

thinking and learning. With respect to process and structure, participating actively

and collaboratively in professional learning communities appears to be essential.

(Koellner and Jacobs, 51)

The findings of Koellner and Jacobs are on par with the findings that have been

previously noted by Goldenberg, et al. Once again the importance of *content* is

highlighted. The importance of *collective participation* is also highlighted. Goldenberg,

et al. also notes the necessity of *active learning* and *duration*. These two aspects neatly fit

in the category of *process* and *structure* as noted by Koellner and Jacobs.

Section D: How Personalized, Individualized, Online Professional Development Might Help Teachers Learn Content and Become more effective teachers

While research does indicate that professional development should follow these

criteria it is easier said than done:

Professional development providers face multiple hurdles as they seek to meet the

needs of K–12 in-service teachers. One chronic challenge is the need to convene

groups of role-alike teachers who require similar kinds of discipline and grade-

level–specific training, while also addressing the need to localize training and

build coherence and consistency within buildings and across teacher teams.

(Goldenberg, et al. 288)

To complicate matters further, these criteria must be met while simultaneously overcoming these multiple hurdles. A potential solution to all of these challenges is the possibilities offered through use of the Internet:

> By delivering professional development online, developers can potentially reach larger audiences; convene role-alike, geographically dispersed groups of teachers with common needs and interests; and meet teachers' needs for flexible, self-paced learning experiences. Findings from a limited body of research indicate that online professional development can be effective in meeting these needs. (Goldenberg, et al. 289)

Technology has transformed education. Few would be willing to argue this. It has impacted the way that students learn and it has impacted the way that teachers teach their classes. It has impacted every part of education and there is no turning back. But although technology has had a significant impact on many aspects of education it has had limited access in the area of professional development. Technology has significantly impacted the way that students learn, but has little to no impact on how teachers learn. Sonja Alexander and Aleigha Henderson-Rosser note this contradiction in their article, "Do It Yourself Professional Development." They write:

> A widespread irony in education is that many districts look at technology only in relation to what the students need. As a result, they often neglect to provide teachers with technology based learning, even though they expect them to support their students with instructional technology. And when they do offer PD, they

often fail to provide an optimum learning environment or to give the teachers all

the tools they need to succeed. (Alexander and Henderson-Rosser, 25)

Online professional development has much potential. "A small but growing number of

empirical studies [have] demonstrated that participation in online professional

development can increase teachers' content knowledge or change their pedagogical

beliefs" (Goldenberg, et al. 291). Another way that online professional development

offers many potential benefits is because of its potential for *adaptability*. Koellner and

Jacobs, "posit that PD models fall on a continuum of *adaptability* (Borko, Koellner,

Jacobs, & Seago, 2011; Koellner & Seago, 2010) … Using this continuum enables PD

models to be located on a scale from highly adaptive to highly specified" (Koellner and

Jacobs, 51). They go on to describe the differences between various forms of PD that fall

within this continuum:

> PD models on the *highly adaptive* end are designed to be readily responsive or
>
> adapted to the goals, resources, and circumstances of the local PD context. These
>
> models are based on general and evolving guidelines rather than specific content,
>
> activities, and materials. On the other end of the continuum are *highly specified*
>
> approaches to PD where goals, content resources, and facilitation materials are
>
> provided to ensure a particular, predetermined PD experience. (Koellner and
>
> Jacobs, 51)

Online models of PD have the potential to be both *highly adaptive* and *highly

specified*. Once a teacher identifies an area of needed development they may choose an

individualized program for their development. For example, a teacher is assigned to teach

an AP European History class and only took 6 credits worth of European History in their

college preparation program. This teacher will need to spend a lot of time preparing to

teach such a high level class. And this teacher will need to be given a lot of support as

well. "Just like students, teachers need time to absorb new concepts" (Alexander and

Henderson-Rosser, 25). A teacher in this situation could be given an opportunity to

choose how to use given PD time. In this way online models of PD are *highly adaptive*.

Yet, simultaneously the goals of the needed development are *highly specified*: a need to

further their knowledge of European History. If a teacher in this given scenario were to

be given time throughout the school year and a small budget they may purchase a course

on Great Courses. There are dozens of courses available on Great Courses that are

specifically about European History. In this way the goal of the chosen course will be

highly specified. A teacher may purchase one of the courses and then spend PD time

completing the course instead of sitting through meetings about another initiative that

will disappear the following year. The teacher may then implement what they learned in

the course when they teach AP European History. This is just one example of the

potential of online content-based PD.

Another potential benefit of online PD is *customization*. Customization offers

tremendous potential in any workplace environment:

McLoughlin and Lee's (2008) perspective on customization furthers

understanding of personalization by allowing learners to choose what they need to

meet their workplace goals and by adapting material to these goals. McLoughlin

and Lee explain that workplace customization can be adapted to local regulatory

contexts, individual expertise and desired assessment. Similarly, within the

mobile learning literature, Kinshuk, Graf and Yang (2010) offered two

approaches to customized learning: content specific to the learner's needs and

content adapted to the learner's local work environment. (Gamrat, et al. 1139)

As noted above there are many potential benefits to being given an opportunity to customize personal learning needs to meet goals. *Customization* allows for teachers to meet their content specific needs in a way that would be adapted to their working environment. In this way "technology-enhanced workplace learning is important to learner empowerment" (Gamrat, et al. 1139). With an online PD model that is customizable "One can design technologically enhanced workplace tools that can enhance how learners customize navigation and track personally relevant PD … learners modify their PD experience to reflect constraints and opportunities in their local or regional workplace" (Gamrat, et al. 1140).

No two teachers have the same professional development needs. Take any given Social Studies Department. Under the umbrella of Social Studies is World History, American History, European History, Economics, Sociology, Psychology, Economics, Anthropology, Political Science, etc. Teachers in Social Studies Departments are expected to teach any one of these subjects in any given year. A Social Studies teacher that is teaching AP Psychology for the first time should not be required to sit in a room with teachers who are assigned to teach Economics or Anthropology and have the same professional development experience. In this particular case it would be much more beneficial if the AP Psychology teacher was given time to prepare for the following year by learning the content they will be teaching through use of the Internet in a highly individualized and specific way.

Synthesis of Research Findings

Overall what can be seen based on the literature is that content knowledge and specifically *pedagogical content knowledge* is essential to the success of any teacher. If a teacher does not have an adequate grasp of content their student's understanding of the content will be negatively impacted. Lee Shulman in the mid 1980s brought back the focus on the importance of content knowledge to effective teaching with his emphasis on *pedagogical content knowledge*. Unfortunately throughout history many history teachers have proved to be unprepared to teach the subject effectively. Observations of the ineffectiveness of unprepared teachers stretch back to the 19th Century pioneering American psychologist and educator, G. Stanley Hall. The source of the problem of unprepared history teachers is teacher preparation programs. Many teacher preparation programs even in the 21st Century are not adequately preparing teachers for the rigor of the modern classroom. According to researchers such as Robert B. Bain, this is especially true in the area of social studies. Through his research Bain concluded that this is because of the three very different realms that teacher preparation takes place: colleges of arts and science, schools of education, and K-12 classrooms.

An area where education reformers and researchers are silent is concerning how professional development may be used to make up for the inadequacies of teacher preparation programs. Unfortunately, much modern professional development does not focus on teacher growth in content knowledge. An example of this would be the new trend and focus on PLCs. Professional development (PD) is an essential means of supporting teachers and furthering teacher learning. Therefore, PD is the ideal realm where the inadequacies of teacher preparation programs can be rectified. The possibility

of online PD furthers this potential. The Internet provides the means to offering individualized and customizable PD to meet individual teacher's needs. Areas of weakness in content knowledge can be furthered in a great variety of ways. Online professional development may be simultaneously highly adaptive and highly specialized. There is a real possibility that if properly implemented online professional development offerings may rectify inadequacies in teacher preparation programs, specifically in the area of content knowledge.

Summary

There is a significant gap in educational literature and research into how content-based and content-specific professional development can play a significant role in rectifying inadequacies in college teacher preparation programs and gaps in teacher certification requirements. This is particularly important in social studies education. Teachers in Connecticut can become certified to teach content on the high school or even college level (in the case of AP classes) that they have had limited or no exposure to in college. Support for this project comes from taking up the challenge presented below in regards to applying the important of content knowledge to reform specific aspects of education:

> *Lacking adequate definition and empirical testing*, the ideas [regarding the importance of content knowledge] are bound to play a limited role in revamping the curriculum for teacher content preparation, in informing policies about *certification* and *professional development*, or in furthering our understanding of the relationships among teacher knowledge, teaching, and student learning. Without such work, the ideas remain, as they were twenty years ago, promising

> hypotheses based on logical and ad hoc arguments about the content people think
>
> teachers need. (Ball et al. 4)

This study focused on how *certification* and *professional development* can be informed

by the theoretical framework of the importance of content knowledge to effective

teaching. This study attempted to provide *adequate definitions* and *empirical testing* to

the question of how content based professional development can help to improve

teaching and learning. This study also investigated to what extent the Internet can be used

to provide specific and adaptable content based professional development.

Many current professional development models, such as PLCs, lack an emphasis

on content knowledge. Yet many districts opt for use of the PLC model in its current

form. Much professional development focuses on aspects of teaching instead of content

knowledge (Ball et al. 1) and this is largely due to the lack of application of the

importance of content knowledge to teaching. As Harris and Bain write, "Common sense

asserts that teachers need content knowledge to teach. Most everyone subscribes to the

axiom that teachers cannot teach what they do not themselves know and understand"

(Harris and Bain, 9). This study examined to what extent the claims of educational

researchers in regards to the current inadequacy of college preparation programs and

certification programs are accurate and how content-based and content-specific

professional development could play a role in rectifying these inadequacies.

Chapter 3: Methodology

Philosophical Framework

Everyone is shaped by philosophical assumptions. Even researchers are not immune to this reality, but are rather a part of it. According to Creswell (2013), "*Philosophy* means the use of abstract ideas and beliefs that inform our research. We know that philosophical assumptions are typically the first ideas in developing a study" (Creswell, 2013 pg. 16). It is important to understand the philosophical assumptions that underlie research. According to Huff (2009) philosophy "shapes how we formulate our problem and research questions to study and how we seek information to answer the questions" (Creswell, pg. 18). Also, our philosophical assumptions "are deeply rooted in our training and reinforced by the scholarly community in which we work" (pg. 19). Most researchers emerge from training programs and are members of scholarly communities. Therefore both the genesis and reinforcement of philosophical assumptions take place socially in interactions with others people.

No researcher is immune to philosophical assumptions, although at times one may not be aware of it. Creswell (2013) states, "Whether we are aware of it or not, we always bring certain beliefs and philosophical assumptions to our research" (Creswell, 15). Keeping all of this in mind it is important that a researcher identifies his or her philosophical framework and possible researcher biases. For many, this is a challenge. Creswell writes, "The difficulty lies first in becoming aware of these assumptions and beliefs" (Creswell, 15). One must go through the process of metacognition to become aware of their assumptions and beliefs. According to Creswell:

> Sometimes these are deeply ingrained views about the types of problems that we need to study, what research questions to ask, or how we go about gathering data.

These beliefs are instilled in us during our educational training through reading

journal articles and books, through advice dispensed by our advisors and through

the scholarly communities we engage at our conferences and scholarly meetings

(Creswell, 15).

Philosophical assumptions are deeply ingrained and they shape the motivations for

choosing the problems one may research, the questions they may ask for their research,

and even how they gather data during their research.

My philosophical beliefs are rooted in my five years of teaching experiences as a

social studies teacher in Connecticut. I entered the teaching history because I am

passionate about history and social studies and I have a strong desire to share the story of

history with others. I believe that in order for a teacher to be truly effective he or she

should not only be an *expert* in the content he or she teach, but must simultaneously be

passionate about the content they teach. As an undergraduate I majored in history with a

focus on European History and minored in philosophy. In 2011, I became a certified

teacher in the State of Connecticut after I received a #026 History/Social Studies 7-12

History/Social Studies (secondary) certification. The breadth of the different disciplines I

was certified to teach came as a surprise to me. For the first five years of my teaching

career, I taught freshman World History and Psychology and Sociology elective courses.

Teaching World History came relatively easy to me because I was both passionate about

it and had taken many classes in it as an undergraduate. It took me longer to come to

appreciate and feel comfortable teaching Psychology and Sociology. In college I only

took one Psychology class and I didn't take any Sociology classes. Now, in my sixth year

of teaching, I have been given the task of teaching AP Psychology. In teaching this class I

feel completely out of my comfort zone. This experience led me to question the #026

certification and has strengthened my belief that both content *knowledge* and *passion* for

content are important factors in effective teaching. It also led me to wonder what benefits

content-based professional development may offer other teachers in a similar situation to

my own.

Interpretive Framework

This research focused on the perceived efficacy of the #026 History/Social

Studies 7-12 History/Social Studies certification by social studies department chairs

throughout the state of Connecticut. It also examined the perceptions of department

chairpersons in regards to the effectiveness of teacher preparation programs in preparing

teachers with an adequate amount of content knowledge for the classroom. The research

was conducted within a pragmatist interpretive framework. According to Creswell (2013)

"individuals holding an interpretive framework based on pragmatism focus on the

outcomes of the research-the actions, situations, and consequences of inquiry-rather than

antecedent conditions" (Creswell, 28). The focus of the pragmatist framework is

"applications-"what works"-and solutions to problems (Patton, 1990). Thus, instead of a

focus on methods, the important aspect of research is the problem being studies and

questions asked about this problem" (Creswell, 28).

Purpose

The purpose of this study was to survey social studies department chairs

throughout the state of Connecticut concerning their perceptions of certification, content

knowledge, and the process of supporting teachers who lack content knowledge

development in certain areas. I specifically examined their perceptions of the efficacy of

the #026 History/Social Studies 7-12 History/Social Studies certification. The research

specifically focused on whether social studies department chairs perceived the

certification to be too broad and whether it poses a challenge to them in choosing which

teachers are qualified to teach specific classes. Department chairpersons are the ideal

source of data for this study because they create schedules for their departments and

know which classes require specific content specialization. They understand certification

requirements and have the broadest of knowledge in regards to what content needs to be

taught in social studies classes. They are primarily responsible for hiring new social

studies teachers and are familiar with undergraduate social studies teacher preparation

programs.

Research Design

According to Creswell (2012), "You use action research when you have a specific

educational problem to solve" (Creswell, 577). My research focused on the problem of

whether or not social studies teachers have sufficient content knowledge to teach all 8

content categories encompassed within the #026 certification. Another benefit of using

action research is it "has an applied focus" (Creswell 2012). My intention was not simply

to gather data but rather to use it for the purpose of improvement. Creswell (2012) writes,

"Action research designs are systematic procedures done by teachers (or other individuals

in an educational setting) to gather information about, and subsequently improve, the

ways their particular educational setting operates, their teaching, and their student

learning" (Creswell, 577). This was specifically applied to the second part of my

research. The focus of the second part of my research was on whether or not content-

based professional development may offer help to social studies departments across the

state of Connecticut in developing more content knowledge for their teachers. This intention is also appropriate for the use of action research. According to Creswell, "Educators aim to improve the practice of education by studying issues or problems they face. Educators reflect about these problems, collect and analyze data, and implement changes based on their findings" (Creswell, 577). As Creswell writes, "The aim of action research is to address an actual problem in an educational setting. Thus, action researchers study practical issues that will have immediate benefits for education" (Creswell, 586). Action research is fundamentally practical. According to Creswell, "action researchers do not undertake this form of research to advance knowledge for knowledge's sake, but to solve an immediate, applied problem" (Creswell, 586). The specific type of action research that I used was *practical* action research. According to Creswell the purpose of practical action research is "to research a specific school situation with a view toward improving practice" (Creswell, 580). Practical action research "involves a small-scale research project, narrowly focuses on a specific problem or issue" (Creswell, 580) and "seeks to improve specific, local issues" (Creswell, 580). The research I performed was small-scale and narrowly focused on the issues outlined above. The goal of my research was to analyze, and if necessary, improve a specific, local issue. Therefore practical action research matches the purpose and goals of this study.

Data Collection Methods

Qualitative and quantitative data collection methods were used in my research. Creswell (2012) defines mixed methods design as, "a procedure for collecting, analyzing, and "mixing" both quantitative and qualitative methods in a single study or a series of

studies to understand a research problem" (Creswell, 535). This was advantageous

because by using "both quantitative and qualitative methods, in combination, provide a

better understanding of the research problem and question than either method by itself"

(Creswell, 535). The specific type of mixed methods design I used in my research was

convergent mixed method design. According to Creswell:

> The purpose of a convergent (or parallel or concurrent) mixed methods design is
>
> to simultaneously collect both quantitative and qualitative data, merge the data,
>
> and use the results to understand a research problem. A basic rationale for this
>
> design is that one data collection form supplies strengths to offset the weaknesses
>
> of the other form, and that a more complete understanding of a research problem
>
> results from collecting both quantitative and qualitative data. (Creswell, 540)

By using convergent mixed methods design, I simultaneously collected both quantitative

and qualitative data and then merged the data. My data primarily came through the use of

surveys and both close-ended survey questions (*qualitative*) and open-ended survey

questions (*quantitative*). Close-ended survey questions limit the answers of the

respondents to response options provided on the questionnaire and open-ended survey

questions there are no predefined options or categories included. My closed-ended

surveys were structured according to a Likert Scale. According to Creswell, "the strength

of this design is that it combines the advantages of each form of data; that is, quantitative

data provide for generalizability, whereas qualitative data offer information about the

context or setting" (Creswell, 542).

Part I. Quantitative

Population

For the purpose of my research the population that I studied was social studies department chairpersons in the state of Connecticut. Creswell writes, "The process of survey research begins with identifying the population. This step requires defining the population, determining the number of people in it, and assessing whether you can obtain a list of names (i.e., the sampling frame) for the sample" (Creswell, 403). Social studies department chairpersons are in a unique position because they are familiar with the yearly task of creating schedules for social studies teachers and a key consideration of assigning teachers to various courses hinges on teacher strengths in regards to content knowledge. Social studies department chairpersons often have experience coaching social studies teachers who have are certified with the #026 History/Social Studies 7-12 History/Social Studies certification. This population was the most appropriate because the research focused on the following:

- The perceived efficacy of the #026 History/Social Studies 7-12 History/Social Studies Certification

- Perceptions of how content knowledge based professional development may or may not be a benefit to Social Studies teachers in their schools

Survey Design

According to Creswell, "Despite the many applications of surveys today, there are still only two basic types of research surveys: cross sectional and longitudinal" (Creswell, 377). Out of these two basic types of research surveys, *cross sectional* was the most

appropriate for my research. Creswell writes "In a cross-sectional survey design, the researcher collects data at one point in time" (Creswell, 377). The benefits to this type of research surveys are that they have "the advantage of measuring current attitudes or practices. It also provides information in a short amount of time, such as the time required for administering the survey and collecting the information" (Creswell, 377). In my research, I blended two types of cross sectional surveys. The first type "*examined current attitudes, beliefs, opinions, or practices*. Attitudes, beliefs, and opinions are ways in which individuals think about issues, whereas practices are their actual behaviors" (Creswell, 377). In the case of my research, I focused on examining social studies department chairperson's current attitudes and opinions toward the #026 certification. I also examined the beliefs and practices in regards to content-based professional development. The second survey was designed to "*evaluate a program*, such as a survey that provides useful information to decision makers" (Creswell, 379). In my research, I asked social studies department chairpersons to evaluate the #026 certification, as well as evaluate their current professional development practices in regards to their capacity to further content knowledge.

Survey Technique and Development

The survey technique I used for my research was a web-based questionnaire. According to Creswell, "A web-based questionnaire is a survey instrument for collecting data that is available on the computer" (Creswell, 383). The specific instrument I used for my research is Google Forms. There are many benefits to web-based questionnaires. Creswell suggests, "web surveys may allow effective and economical surveying of the entire population and thereby skirt around the inference problem" (Creswell, 384). I have

been using Google Forms for years and it has proved to be an effective instrument for collecting data for a variety of different needs I have had as an educator. To identify the social studies department chairpersons, I contacted Stephen Armstrong who is the Social Studies Consultant for the Connecticut State Department of Education. Mr. Armstrong took interest in my research and shared with me contact e-mails for social studies department chairpersons throughout Connecticut. I then wrote an introductory e-mail explaining my research and sent the Google Form Survey to all the social studies department chairpersons.

My first attempts at creating survey questions were vague and I did not have a validated scale for answering the questions I was posing. I was advised to look into the Likert Scale. After reading about the Likert Scale, I realized it would be an effective and proven scale to utilize in my research questions. Another step in the process was to narrow the focus of my research. Initially, I had research questions about teacher preparation programs and it proved to be too much for my current research. I received feedback on my questions from critical friends in my Sixth Year Program and from my professor. After several revisions the questionnaire was ready for distribution.

Part II. Qualitative

Data Sources

The data source for the collection of my qualitative data mirrored that of my quantitative data. As Creswell writes, "in *qualitative* research, we identify our participants and sites on purposeful sampling, based on places and people that can best help us understand our central phenomenon" (Creswell, 205). The population that I drew from was social studies department chairpersons throughout the state of Connecticut. I

gained access to the entire population through Stephen Armstrong, who is the Social Studies Consultant for the state of Connecticut. My research questions arose from my literature review and the questions that arose from my research.

Gathering and Organizing Data

The process I selected for gathering my data was use open-ended survey questions. Creswell writes, "In *qualitative* research, you ask open-ended questions so that the participants can best voice their experiences unconstrained by any perspectives of the researcher or past research findings" (Creswell, 218). By using open-ended survey questions I gathered open-ended responses. The advantage of collecting open-ended responses is that they allow "the participant to create the options for responding" (Creswell, 218). To gather this data I put open-ended questions on the questionnaire that I sent to social studies department chairpersons through Google Forms. Some of the questions were closed ended for the purpose of collecting my *quantitative* data, and some of the questions were open-ended for the purpose of collecting my *qualitative* data. According to Creswell this is an effective method of collecting qualitative data:

> On questionnaires, you may ask some questions that are closed ended and some that are open ended. The advantage of this type of questioning is that your predetermined closed-ended responses can net useful information to support theories and concepts in the literature. The open-ended responses, however, permit you to explore reasons for the closed-ended responses and identify any comments people might have that are beyond the responses to the closed-ended questions (Creswell, 220).

The open-ended responses were transcribed. "Transcription is the process of converting audiotape recordings or field notes into text data" (Creswell, 239). In the research process, organization of data is critical. As Creswell writes, "Organization of data is critical in qualitative research because of the large amount of information gathered during a study" (Creswell, 238). To organize and transcribe my data I used a qualitative data analysis computer program. "A qualitative data analysis computer program is a program that stores data, organizes your data, enables you to assign labels or codes to your data, and facilitates searching through your data and locating specific text or words" (Creswell, 241). Without using a computer program the organization and transcription of data is extremely time consuming. By using a qualitative data analysis computer program I saved a lot of time in the process. As Creswell states, "A computer analysis of qualitative data means that researchers use a qualitative computer program to facilitate the process of storing, analyzing, sorting, and representing or visualizing the data" (Creswell, 241). The specific program I used was NVivo for Mac. Creswell who recommends NVivo writes:

> It combines efficient management of nonnumerical, unstructured data with powerful processes of indexing, searching, and theorizing. Designed for researchers making sense of complex data, NVivo offers a complete toolkit for rapid coding, thorough exploration, and rigorous management and analysis. Especially valuable is the ability of the program to create text data matrixes for comparisons. It also provides for visually mapping categories identified in your analysis (Creswell, 243).

Quantitative Analysis Methods and Tools

After collecting my quantitative data through the distribution of a closed-ended survey I analyzed the data. After receiving the closed-ended responses the first step was to organize the data for analysis. According to Creswell, "Preparing and organizing data for analysis in quantitative research consists of scoring the data and creating a codebook, determining the types of scores to use, selecting a computer program, inputting the data into the program for analysis, and clearing the data" (Creswell, 175). I used the organized data to answer questions and draw conclusions. To do this I analyzed the data with Google Forms and Microsoft Excel. I also created charts to display my data visually and present my findings.

Qualitative Analysis Methods and Tools

I used open-ended survey questions to generate qualitative data. After collecting my qualitative data I analyzed it. Before analysis took place it was necessary to organize the data first, particularly because of the large amount of qualitative data that was gathered. Creswell writes, "At an early stage in qualitative analysis, you organize data into file folders or computer files. Organization of data is critical in qualitative research because of the large amount of information gathered during a study" (Creswell, 238). After organizing my data into computer files I analyzed the data using a computer program. Creswell writes, "A computer analysis of qualitative data means that researchers use a qualitative computer program to facilitate the process of storing, analyzing, sorting, and representing or visualizing the data" (Creswell, 241). I used a qualitative data analysis computer program to store, organize, and assign codes to my data and facilitate searching through my data to locate specific text or words (Creswell,

47

241). The qualitative data analysis computer program I used is called NVivo. According to Creswell NVivo,

> Combines efficient management of nonnumerical, unstructured data with powerful processes of indexing, searching, and theorizing. Designed for researchers making sense of complex data, NVivo offers a complete toolkit for rapid coding, thorough exploration, and rigorous management and analysis. Especially valuable is the ability of the program to create text data matrixes for comparisons. It also provides for visually mapping categories identified in your analysis (Creswell, 243).

The first stage of analyzing my data was to explore the data I have collected. According to Creswell, "A preliminary exploratory analysis in qualitative research consists of exploring the data to obtain a general sense of the data, memoing ideas, thinking about the organization of the data, and considering whether you need more data" (Creswell, 243). After spending time exploring my data I then coded it. "Coding is the process of segmenting and labeling text to form descriptions and broad themes in the data" (Creswell, 243). The purpose of coding data is "to make sense out of text data, divide it into text or image segments, label the segments with codes, examine codes for overlap and redundancy, and collapse these codes into broad themes" (Creswell, 243).

I used NVivo to code the open-ended survey responses according to broad themes. Dividing my data up into these broad themes made my analysis of the data possible. NVivo makes the process of coding simple. NVivo allowed me to create codes, which are labels used to describe a segment of text (Creswell, 244) such as "content-

knowledge." I used NVivo to organize positive text segments and negative text segments about themes such as content-based professional development. Text segments are sentences or paragraphs that all relate to a single code (Creswell, 244). During this process I was careful to not "over-code" the data. According to Creswell, "After coding an entire text, make a list of all code words. Group similar codes and look for redundant codes" (Creswell, 244). This reduced the number of codes to a more manageable number. The goal of this narrowing down of codes was to reduce them into a small number of themes and I then use them in writing my qualitative report. According to Creswell,

> Reduce the list of codes to get five to seven themes or descriptions of the setting or participants. Themes (also called categories) are similar codes aggregated together to form a major idea in the database. Identify the five to seven themes by examining codes that the participants discuss most frequently, are unique or surprising, have the most evidence to support them, or are those you might expect to find when studying the phenomenon (Creswell, 245).

The purpose of reducing the number of codes is so the number of themes will also be reduced. This helped in the process of writing a qualitative report based on the data gathered from my open-ended surveys.

Reliability and Validity

The next required step was to determine that the findings and interpretations were accurate. To do so it was critical that I validated my findings. This "means that the researcher determines the accuracy or credibility of the findings through strategies" (Creswell & Miller, 2000; Lincoln & Guba, 1985). "Thus, accuracy or credibility of the

findings is of upmost importance. There are varied terms that qualitative researchers use to describe this accuracy or credibility, and the strategies used to validate qualitative accounts vary in number" (Creswell, 259). To determine reliability and validity in my research I used three methods to determine validity and reliability. The three methods were: triangulation, external audit, and peer debriefing.

Triangulation

Triangulation can be defined as using multiple data sources in an investigation to produce understanding (Cohen D and Crabtree B, 2006). According to Creswell:

> Triangulation is the process of corroborating evidence from different individuals (e.g., a principal and a student), types of data (e.g., observational fieldnotes and interviews), or methods of data collection (e.g., documents and interviews) in descriptions and themes in qualitative research (Creswell, 259).

My research utilized both *quantitative* and *qualitative* data, and both *open*-ended and *closed*-ended surveys. In this way my data reflected the triangulation process by utilizing two different types of data and two different methods of data collection. According to Denzin (1978) and Patton (1999) Methods triangulation is defined as:

- Checking out the consistency of findings generated by different data collection methods.
- It is common to have qualitative and quantitative data in a study
- These elucidate complementary aspects of the same phenomenon
- Often the points were these data diverge are of great interest to the qualitative researcher and provide the most insights (Cohen D and Crabtree B, 2006).

In my research I checked the consistency of findings generated by different data collection methods (*closed*-ended surveys vs. *open*-ended) surveys and I used both *qualitative* and *quantitative* data.

External Audit

The second method I used to measure the reliability and validity of my research was through an external audit. According to Creswell an external audit is when a "researcher hires or obtains the services of an individual outside the study to review different aspects of the research. The auditor reviews the project and writes or communicates an evaluation of the study" (Creswell, 260). Auditors typically ask questions such as those mentioned by Schwandt and Halpern (1988):

- Are the findings grounded in the data?

- Are inferences logical?

- Are the themes appropriate?

- Can inquiry decisions and methodological shifts be justified?

- What is the degree of researcher bias?

- What strategies are used for increasing credibility? (Creswell, 260).

My professor who oversaw my research as well as my department chairperson and social studies teachers in my department audited my data.

Peer Debriefing

The third method I used to measure the reliability and validity of my research was Peer Debriefing. Peer Debriefing can be defined as "a process of exposing oneself to a

disinterested peer in a manner paralleling an analytical sessions and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind" (Lincoln & Guba, 1985, p. 308). There are many purposes for Peer Debriefing as outlined by Cohen and Crabtree (2006):

- Through analytical probing a debriefer can help uncover taken for granted biases, perspectives and assumptions on the researcher's part

- Through this process the researcher can become aware of his/her posture toward data and analysis

- This is an opportunity to test and defend emergent hypotheses and see if they seem reasonable and plausible to a disinterested debriefer

- Provide the researcher with an opportunity for catharsis (Cohen D and Crabtree B, 2006).

Before even conducting my research I shared my survey instrument with disinterested peers in my university cohort program on two different occasions. The first time I shared my survey instrument I shared it with a large group of 15 educators that are colleagues in the Sixth Year degree program at Sacred Heart University. After sharing my survey instrument with them they advised on various ways that I could revise questions and gave me feedback on how to revise the structure of my survey as well. I made these changes and then met again with a more concentrated focus group of three peers that are students in my university cohort. This time I met with a small group of two English teachers and one Science teacher. We read through my revised survey together and they all gave me more feedback and advice on how to further refine my survey instrument. In this session

they advised me on how to reword questions and suggest a few questions they thought I

should add as well.

Chapter 4: Results and Discussion

Introduction (The Study and the Researcher)

I conducted this research toward the end of my sixth year as a social studies teacher in the state of Connecticut. This research was performed as a thesis requirement of a Sixth Year program at Sacred Heart University. I collected the qualitative and quantitative data by collecting open-ended and closed-ended question surveys to 31 social studies department chairpersons throughout the state of Connecticut through a web-based questionnaire using Google Forms. The purpose of this study was to examine the efficacy of the #026 History/Social Studies 7-12 certification according to the perceptions of social studies department chairpersons. The specific focus of the study is whether or not the certification requires teachers to have an adequate amount of content knowledge for the modern classroom and how the level of content knowledge among the teachers in social studies departments impacts scheduling and staffing requirements. The primary research question was: *To what extent is the Connecticut #026 History/Social Studies 7-12 Certification effective according to the perceptions of Social Studies Department Chairpersons?*

The theoretical framework for this mixed methods study of department chair perceptions was inspired largely by the work of Lee Schulman who rediscovered the importance of content knowledge in his research regarding Pedagogical Content Knowledge (PCK) in the mid 1980s. Through his research Schulman uncovered an important educational truth that has always existed: if a teacher does not have an adequate grasp of content their student's understanding of the content will be negatively impacted. (Harris and Bain, 2010). There has been an extensive amount of research done regarding the inadequacy of many teacher preparation programs in the 21st Century to

adequately prepare teachers with an adequate level of content knowledge required for the modern classroom (Harris and Bain, 2010; Swansinger, 2009; Bain and Moje, 2012). This is especially true in the area of social studies, particularly because of the breadth of the subject matter (Swansinger, 2009). These factors contribute to challenges regarding the certification process for social studies teachers. This study carried the theme of content knowledge preparation of social studies teachers and examined the efficacy of the #026 History/Social Studies 7-12 certification in the area of content knowledge.

Description of Sample

A social studies department chairperson is defined as a man or a woman who leads a social studies department at a secondary school in the state of Connecticut. In order to fill this role a candidate is required to possess an Intermediate Administration Certification (092). Department chairpersons are responsible for the leadership of their department. They hire new teachers for their department, oversee curricular revision for their department, create teacher schedules for their department, and lead department meetings. Other districts may require them to do more than was already outlined here. In order to survey the department chairpersons I contacted Stephen Armstrong the Social Studies Consultant for the state of Connecticut. He provided me with a list of approximately 75 social studies department chairpersons in the state of Connecticut. I then proceeded to write an introductory e-mail and send them a link to the Google Forms survey. I received back 31 responses out of the 75 department chairpersons I reached out to. This constitutes a 41% response rate for my study.

Research Methodology and Data Analysis

I conducted this research using a web-based questionnaire approach. I created a survey, which contained 13 closed-ended questions followed by 8 open-ended questions. This mixed methods approach provided me a data set consisting of quantitative data derived from the Likert Scale based survey and qualitative data from the open-ended responses. In the process of creating my survey, I generated face validity by receiving input from the professor that was overseeing my research, my department chair, and a group of critical friends. To create the survey I used Google Forms and combined the closed-ended and open-ended survey questions into one questionnaire. The closed-ended survey questions were all structured according to a Likert Scale:

- Strongly Disagree

- Disagree

- Neither Agree nor Disagree

- Agree

- Strongly Agree

In the analysis of my quantitative data I used Google Forms that produced a series of charts based on the 31 responses to my survey questions. I used these charts to analyze my quantitative data in addition to Microsoft Excel.

In addition to my quantitative data I collected qualitative data through Google Forms as well by providing an opportunity to type their answers to open ended questions. The eight open-ended questions were as follows:

1) Do you consider a social studies teacher's undergraduate preparation and content area expertise when assigning courses? Why or why not?

2) Based on content knowledge preparation, which courses are the most difficult to staff? List them below (please include AP classes).

3) Based on content knowledge preparation, which courses are the easiest to staff? List them below (please include AP classes).

4) Have you ever assigned a social studies teacher to a course in a content area in which they had no undergraduate or graduate coursework? Yes or No?

5) If yes, what was the course?

6) If yes, how did the teacher develop the content knowledge necessary to teach the course?

7) If yes, did your district provide an in-house professional development for the teachers? If yes, what was the PD?

8) If yes, what other supports did you provide the teacher?

The open-ended responses were transcribed in Word. The responses were then inductively coded in qualitative analysis software called NVivo.

Presentation of the Data and Results of Analysis

Quantitative Results

The first close-ended question was in regards to the perceived importance of content knowledge according to social studies chairpersons. The chart below (Chart 1) presents the responses to the first question of the survey: *A Social Studies teacher's level of content-knowledge is important to their effectiveness as a teacher*.

Chart 1
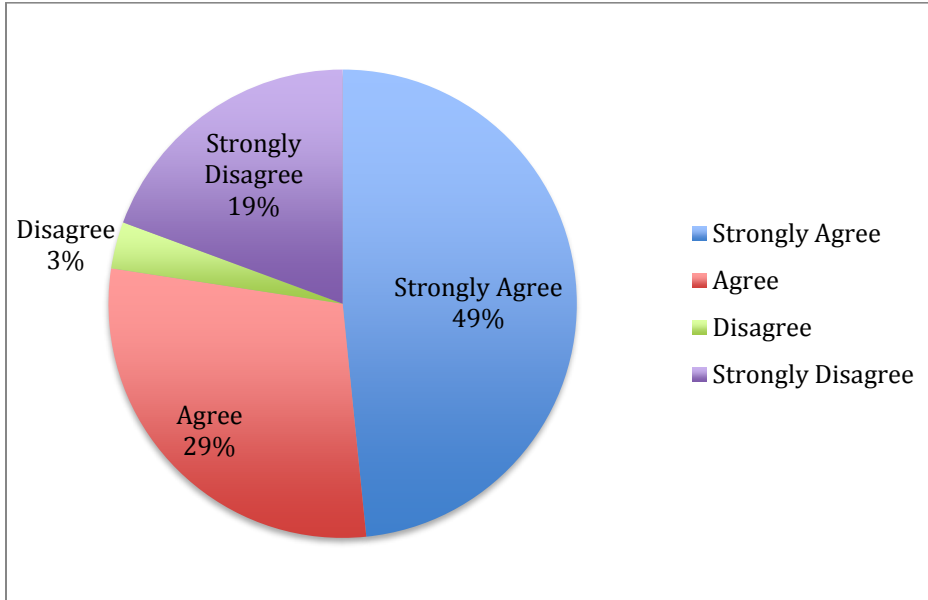
According to the 31 social studies department chairpersons surveyed 49% strongly agree that a teacher's level of content knowledge is important to their effectiveness as a teacher. An additional 29% agree. In contrast 6 chairpersons (19%) strongly disagreed with this statement and one additional teacher (3%) disagreed.

The second close-ended survey moved past chairperson's perceptions of the importance of content knowledge in general and to their perceptions of the Connecticut #026 History/Social Studies, 7-12 certification specifically. The chart below (Chart 2) presents the responses to the first question of the survey: *The content categories contained within the Connecticut #026 History/Social Studies, 7-12 Certification are too numerous*.

Chart 2
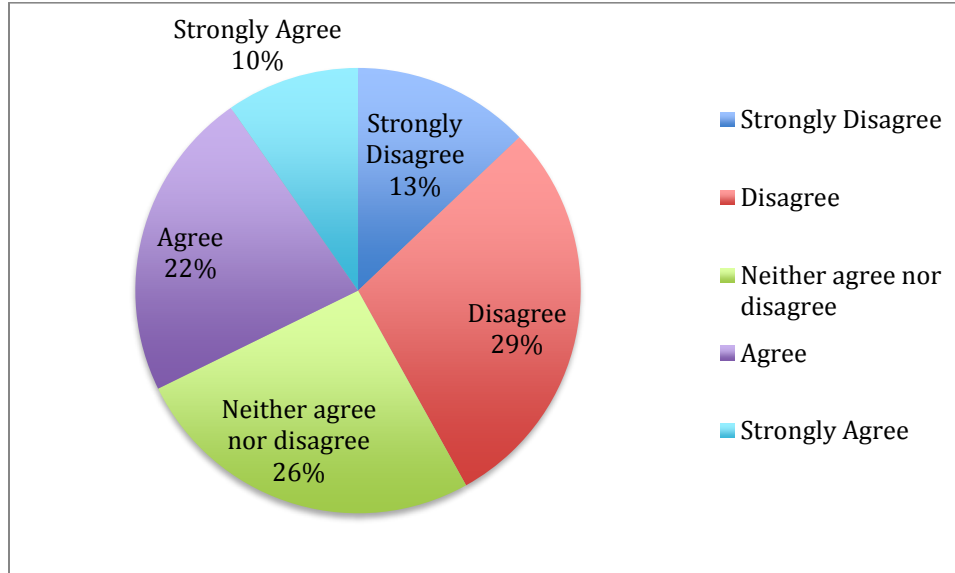
The answers to this question were dissimilar with those who disagreed (29%) or strongly

disagreed (13%) making up 42% of those surveyed. Those who agreed (22%) and those

who strongly agreed (10%) made up 32% of those surveyed. And then 8 (26%) of those

surveyed neither agreed nor disagreed. There was no clear majority in the answers to this

question.

The next series of questions measured the perceptions of social studies

department chairpersons regarding the level of content knowledge in specific content

categories encompassed within the #026 History/Social Studies, 7-12 certification. These

questions all focused on the perceived level of content knowledge that new teachers

possess specifically. The content categories were: US History, World History,

Government (Civics or Political Science), Geography, Economics, Psychology,

Sociology, and Anthropology. The questions were all worded the same way and all

measured according to a Likert Scale. For example the first of the eight were as follows:

Perceptions of Efficacy in Connecticut Social Studies Certification

New social studies teachers in my district possess sufficient content knowledge in the area of US History. The same structure was applied to the next seven content categories. The data based on their responses are outlined in the eight charts below. Each chart corresponds with a different content category and the perceived level of content knowledge that new teachers possess in each category based on the responses of the social studies department chairpersons.

Chart 3
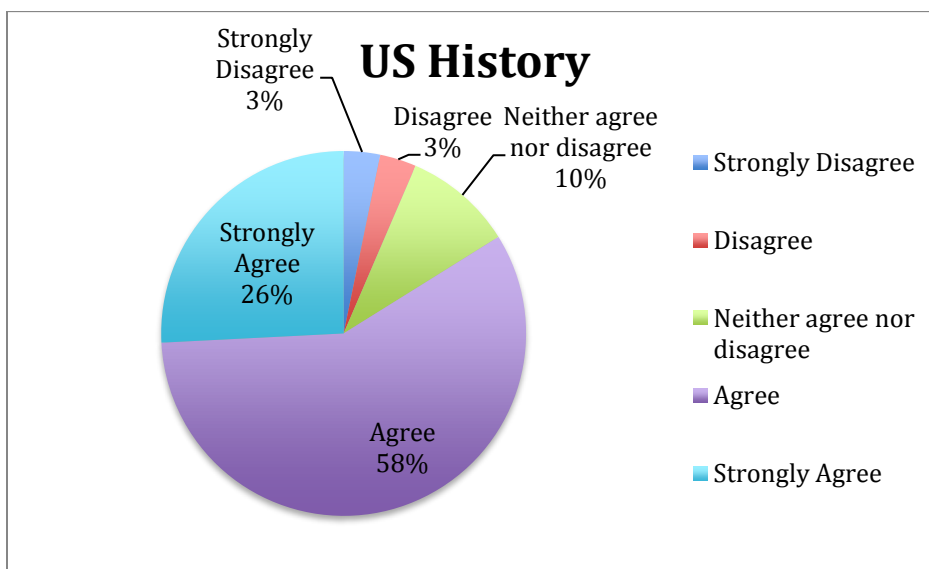
Out of all eight content knowledge categories surveyed US History was the area that chairpersons had the most confidence that the teachers in their departments possessed sufficient content knowledge in. Altogether 84% of those surveyed agreed to some measure. A clear majority (58%) agreed and an additional eight (26%) strongly agreed. Only one teacher disagreed and only one teacher strongly disagreed.
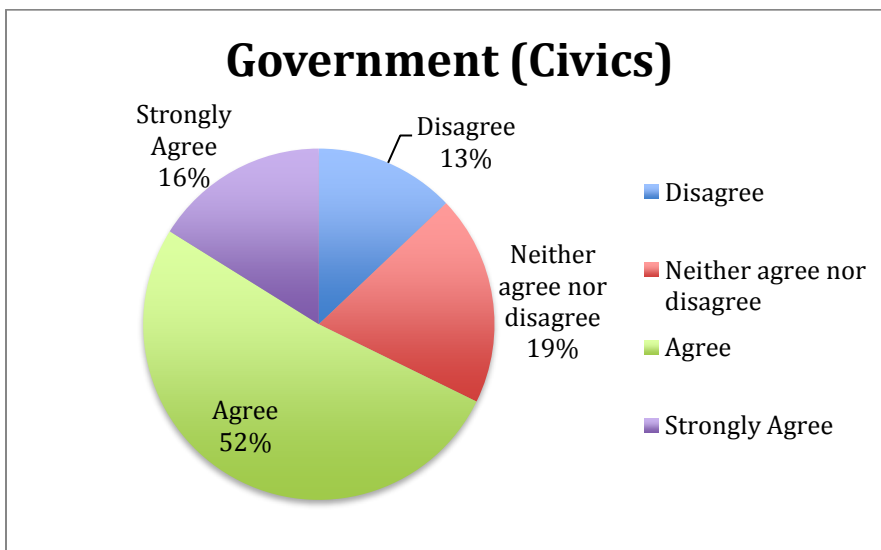
Chart 4
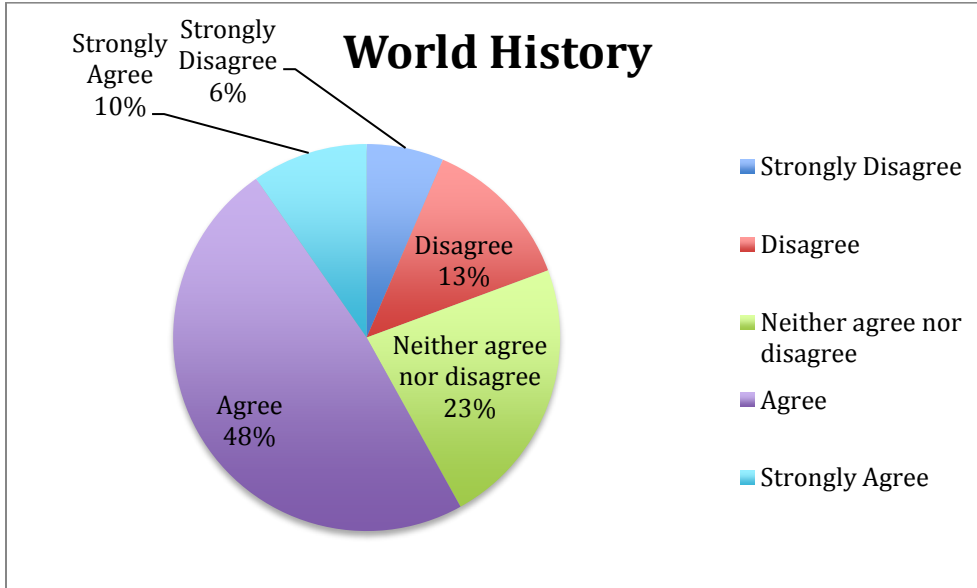
Fewer chairpersons were confident in regards to the level of content knowledge in World

History as they were toward US History. Although more agreed or strongly agreed

(together 58%) than disagreed or strongly disagreed (together 19%), about a quarter of

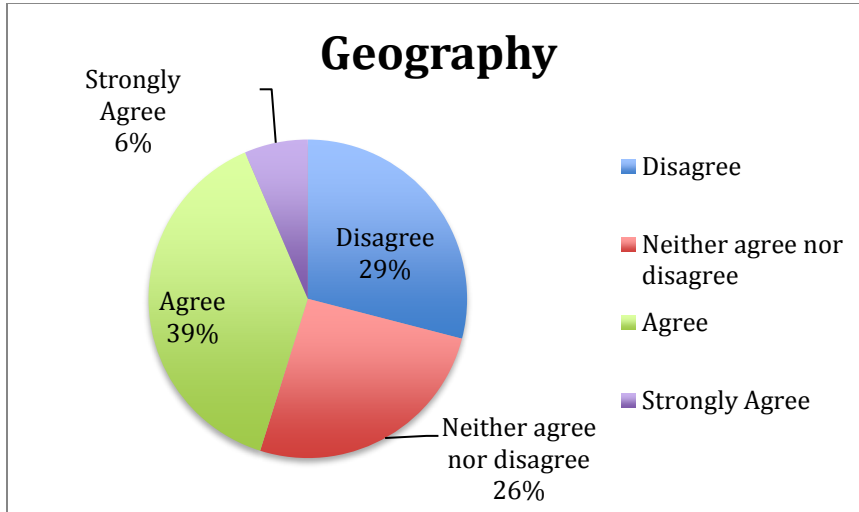the teachers were not sure and 23% answered that they neither agreed nor disagreed.

Chart 5

Chairpersons had more confidence in the level of content knowledge of new teachers in regards to Government (Civics or Political Science) than they were for World History. A clear majority (68%) either agreed or strongly agreed. Only four teachers (13%) disagreed.

Chart 6

In regards to Geography most agreed in some measure (45%) but nine (29%) disagreed and eight (26%) neither agreed nor disagreed.

Chart 7
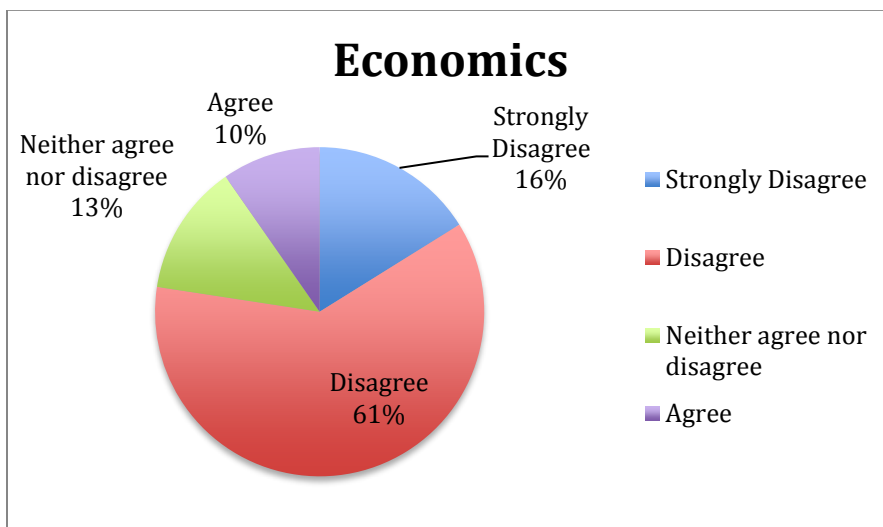
Economics had the clearest majority of those who disagreed (77%). Out of those

surveyed 61% disagreed that new teachers had an adequate level of content knowledge in

Economics and an additional (16%) *strongly* disagreed. Altogether 24 chairpersons

disagreed to some extent. This is the clearest contrast to US History where 26

chairpersons agreed that new teachers had adequate content knowledge. Out of those

surveyed only 3 (10%) agreed.

Chart 8
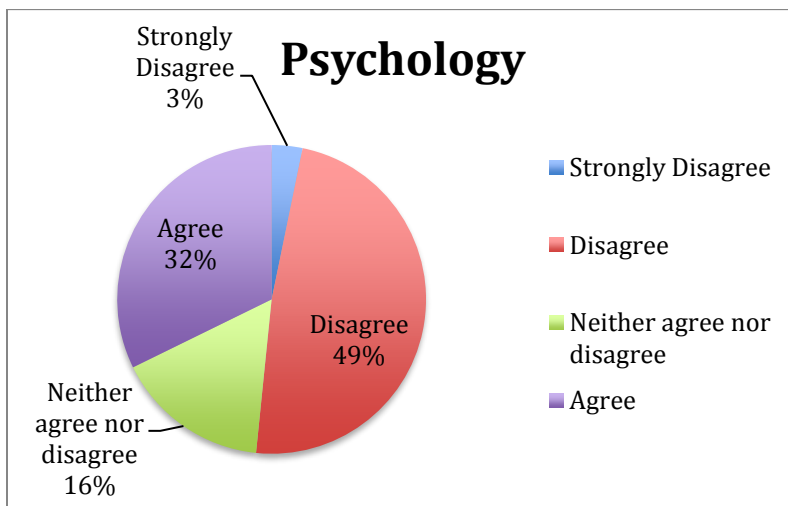
Chart 9
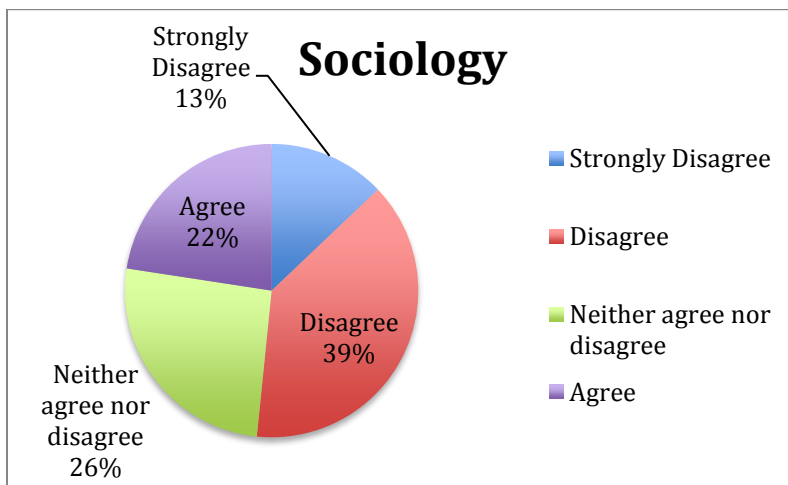
Chart 10

Anthropology

Neither agree nor disagree 6%
Agree 10%
Strongly Disagree 39%
Disagree 45%

- Strongly Disagree
- Disagree
- Neither agree nor disagree
- Agree

The findings in regards to adequacy of content knowledge in Psychology and Sociology were relatively similar. In regards to those who disagreed (or disagreed strongly) the findings were the same for both Psychology (52%) and Sociology (52%). For Psychology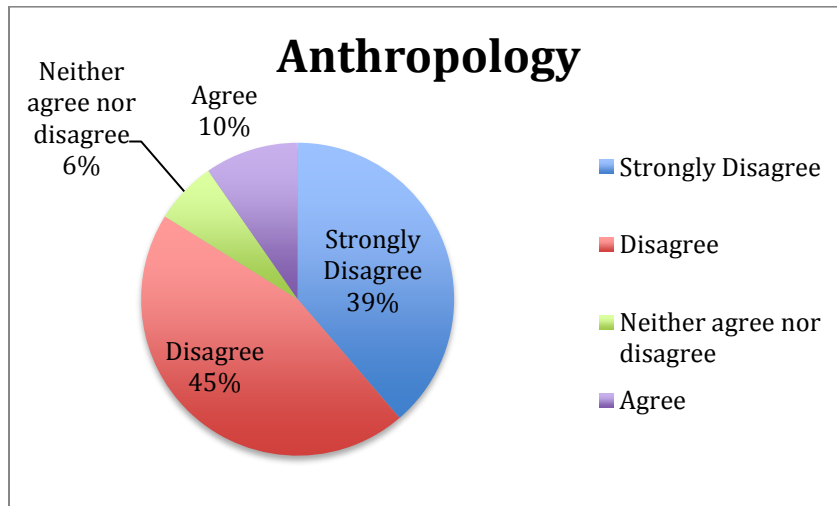 those who agreed (or agreed strongly) was 32% and for Sociology 22%. Out of all eight content categories the highest number of chairpersons disagreed that new teachers possessed sufficient content knowledge in Anthropology. An overwhelming majority (84%) either disagreed or strongly disagreed. Out of the 31 chairpersons surveyed only 3 agreed that new teachers had sufficient content knowledge in Anthropology.

After having social studies department chairpersons answer questions in regards to content knowledge of new teachers in the eight content categories encompassed within the #026 History/Social Studies, 7-12 certification the questions returned to the #026 Certification itself. The next question was: *The state requirements for certification in Social Studies (#026) require teachers to have adequate training in content knowledge necessary for the modern classroom.* The chart below (Chart 11) displays their responses.

Chart 11
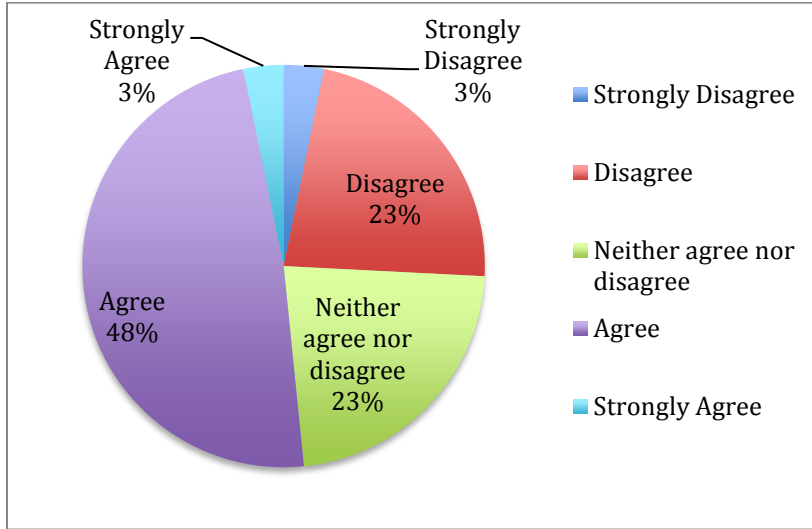
A slim majority (51%) either agreed or agreed strongly that the #026 Certification required teachers to have an adequate level of content knowledge for the modern classroom. Of those surveyed 26% either disagreed or strongly disagreed.

The next question also specifically focused on the #026 certification as well. The question was: *There are content-knowledge gaps in the Social Studies (#026) certification process in Connecticut*. The question was answered according to a Likert Scale and the results are present below (Chart 12).

Chart 12
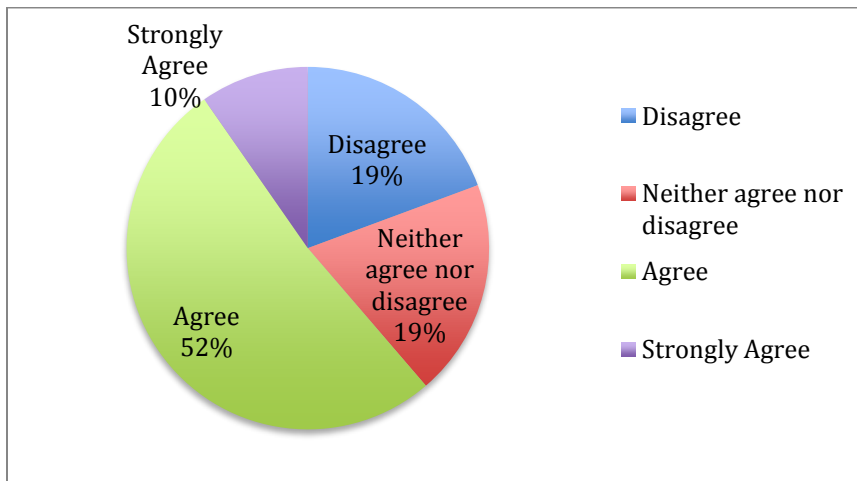
Of those surveyed a majority (62%) either agreed or strongly agreed that there are content knowledge gaps in the Social Studies #026 certification. Only 6 (19%) disagreed which was equal to the number of those who neither agreed nor disagreed.

The final quantitative question was in regards to teacher scheduling. The question was: *I struggle matching teachers to classes and creating schedules because many teachers lack content-knowledge in certain content categories*. The question was answered according to a Likert scale and the results are displayed below (Chart 13).

Chart 13
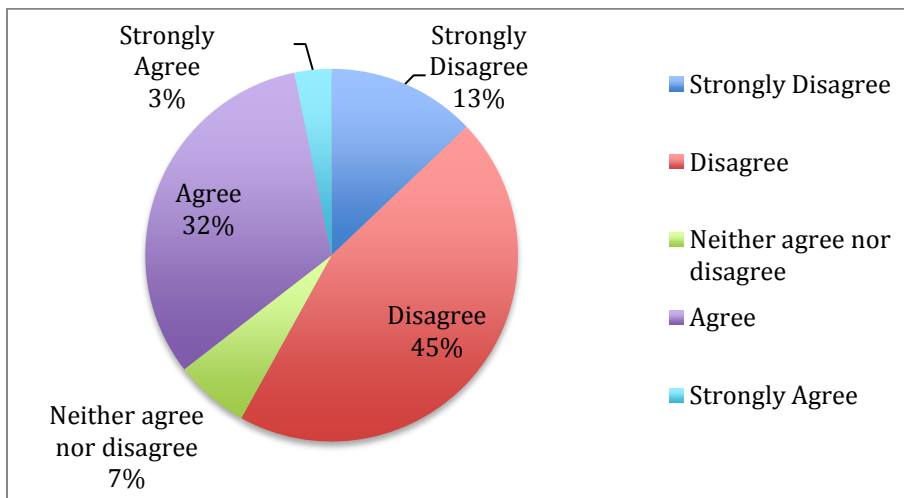
On this question the majority of chairpersons disagreed or strongly disagreed (58%). Therefore, the majority of chairpersons do not struggle creating schedules because teachers lack content-knowledge in certain content categories. Only 10 (32%) agreed and 2 (7%) neither agreed nor disagreed.

Qualitative Results

After analyzing the qualitative data much more insight was found regarding the perceptions of social studies department chairpersons regarding the effectiveness of the Connecticut #026 History/Social Studies 7-12 certification. The first open-ended question asked was a philosophical question regarding to what extent department chairpersons believe that content knowledge is important for the modern classroom. The question posed was, *"Do you consider a social studies teacher's undergraduate preparation and content area expertise when assigning courses? Why or why not?"* Out of the 31 chairpersons surveyed 23 answered that they do consider a social studies teacher's undergraduate preparation and 7 said they do not. Out of the 23 that answered that they do consider undergraduate preparation 5 stated that they noticed an association between knowledge of content and effectiveness in the classroom. For example one chairperson responded, "Knowledge of content knowledge is necessary to effectively teach." Another chairperson responded, "If you have content knowledge you can spend more time on delivery of instruction rather then learning first." Another wrote, "I want teachers teaching classes in which they know and enjoy the content. I believe this translates to better teaching and instruction." Other responses indicated that a high level of content knowledge illustrated interest, motivation, passion, and strength for teachers in that specific content category. An example response was, "I prefer to place teachers in courses where their existing content knowledge is strongest. I don't expect teachers to be knowledgeable in all courses but prior experience and/or interest in learning do factor into assignments." Another response stated, "Often undergrad work is a source of passion and strength." Another wrote, "It's primarily based on interest/expertise in order to keep the teacher motivated."

Not all responses agreed that content knowledge impacted the assigning of courses. An example of this sort of response is, "I expect our teachers to have familiarity with the subject, not to be experts." Another wrote, "Most high school courses are survey courses and teachers can develop content mastery over time." Others agreed that mastery of content knowledge comes over time and not through undergraduate work,

> There are too many factors that influence the schedule and most teachers in my department have SS Education undergraduate majors anyway. Teachers that teach niche or elective courses typically do so because they've developed expertise on the job, not through their undergraduate work.

Another response stated,

> I strongly believe any certified social studies teacher can teach any social studies content. A teacher may have earned a degree in Psychology 20 years ago and never taught the content. I don't think this would make a person significantly better prepared to teach this course. Instead, I consider teacher preference. The skills we teach in social studies are what most students will carry with them beyond high school, and we teach these skills through content. A teacher can easily research something they may not have learned as part of their undergraduate and/or graduate degree. Also, teachers should collaborate and learn from each other, both in what they plan to teach and how they plan to teach it.

The data indicated that although most (23) department chairpersons do consider a teacher's content knowledge expertise when assigning the course there were also a minority (7) that do not consider content knowledge when assigning courses. Among these there are a few who passionately believe that teachers have the ability to learn new

content knowledge on the job and undergraduate majors are not as important as teacher preference and motivation.

The second question had to do with which classes were the most difficult to staff based on teacher content knowledge preparation. The question asked, *"Based on content knowledge preparation, which courses are the most difficult to staff? List them below (please include AP classes)."* Out of the 31 responses 21 said that AP classes were the most difficult to staff. Examples of AP classes listed were: AP Psychology, AP World History, AP Micro/Macro Economics, AP United States History, and AP Government. Another 5 responses stated that UCONN ECE Courses were the most difficult to staff. In the words of one response, "because of UConn certification requirements." Most UCONN ECE courses require teachers to have a Masters Degree in the content of the class they are going to teach or at the very least some graduate level credits in the content. This is particularly an area of difficulty in staffing these classes in smaller schools. One department chairperson stated,

> The most difficult to staff are the UCONN ECE courses. UCONN's requirements are inconsistent. Teachers with one graduate class in an area are approved; teachers with 40 or 50 undergrad credits in an area are not. The community college requirements also vary from school to school making these courses difficult to staff as well.

Out of the 31 responses 16 indicated that Economics was a difficult course to staff because of a lack of content knowledge. One response stated, "Economics is probably the greatest challenge. Teachers tend to have the least experience with it there. However, the teachers who have been assigned to teach it have all asked to continue because they love

the content." Another wrote, "Typically economics classes teachers are sometimes uneasy about." Other areas of difficulty include Psychology, Sociology, and Anthropology. Out of the 31 responses 16 indicated that these three subjects were areas of difficulty. One response stated, "Psychology and Sociology are a bit trickier but usually I have teacher interest if not content experience and frankly fewer students are impacted during a teacher's learning curve." Overall responses indicated that AP classes, UCONN ECE classes, Economics, and Social Sciences (Psychology, Sociology, and Anthropology) are the most difficult to staff based on content knowledge preparation.

The third question served as a follow up to the second question. It asked, *"Based on content knowledge preparation, which courses are the easiest to staff? List them below (please include AP classes)."* Out of the 31 responses 21 stated that United States History was the easiest to staff. One response stated, "The US-oriented content tends to be where people feel most comfortable- makes sense since they were typically raised and educated in America and have tons of background knowledge from both school and life." Another 14 responses indicated that World History was among the easiest to staff. Another 11 stated that Government (Civics) was among the easiest to staff. And then 6 responses stated that AP classes were among the easiest to staff. Overall the majority of responses indicated that United States History, World History, and Government (Civics) were the easiest to staff based on content knowledge preparation.

The fourth question asked chairpersons, *"Have you ever assigned a social studies teacher to a course in a content area in which they had no undergraduate or graduate coursework? Yes or No?"* Out of the 31 responses 18 stated that they have assigned a social studies teacher to a course in a content area in which they had no undergraduate

coursework. One response stated, "All the time because college courses are too specialized. But I would rather hire a teacher with intellect and a work ethic that would make her learn new topics than a specialist without curiosity and a desire to master more." Out of the 31 responses 12 stated that they have not. One person wrote, "They at least have done undergraduate coursework in the area." One person said they didn't know for sure, "I don't know all the courses they've taken unless they told me." The data illustrates that the majority (18 out of 31) of chairpersons have assigned teachers to teach courses in which they have had no undergraduate content preparation.

The fifth question asked, *"If yes, what was the course?"* The data table below illustrates the results to this question:
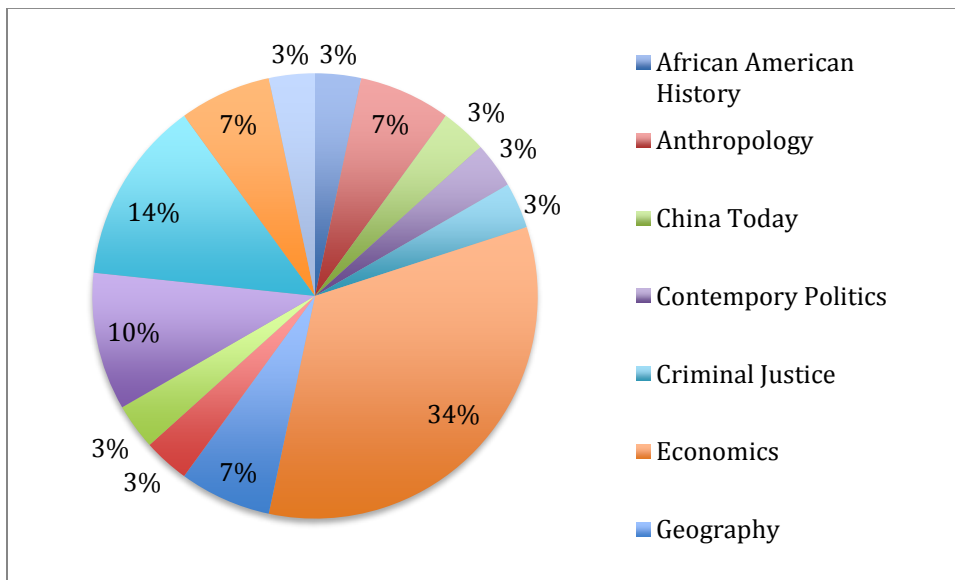
Out of those surveyed 10 chairpersons (34%) have assigned teachers to teach Economics that had no undergraduate preparation in the subject. The data showed that Economics was followed by Sociology (4), Psychology (3), Anthropology (2), World History (2), and Geography (2). Overall, Economics was the most common course that department chairpersons assigned teachers to teach without undergraduate preparation.

The sixth question asked, *"If yes, how did the teacher develop the content knowledge necessary to teach the course?"* Essentially this question asked how teachers developed the content knowledge necessary to teach a course that they had no undergraduate preparation in. Out of the 31 responses 9 of them indicated that preparation was done through some form of peer mentoring. Some examples of these responses are given here. One wrote, "Worked with teacher who taught course previously." Another wrote, "Colleague in the building who already taught it and had a master's degree in the subject." Another response stated, "They worked with another teacher who had taken courses in psychology." Another 6 responded that preparation was done through independent research. One person wrote, "Usually on his/her own, by reading up on it over the summer and/or during the school year" and another "Read, read, read." Another 4 responses stated that preparation was done through a close following of the curriculum and textbook for the course. Out of the 31 responses one stated that preparation was done through online resources and one said preparation was done through professional development. Overall the data indicates that preparation to teach a class in which a teacher has had no undergraduate preparation is done through peer mentoring and independent research. Only one response indicated that online resources were used and only one made any reference to professional development.

The seventh question explored the use of professional development to prepare teachers with the content knowledge required to teach a course in which they had no undergraduate preparation. The question asked, *"If yes, did your district provide an in-house professional development for the teachers? If yes, what was the PD?"* In the previous question only one response made any reference to professional development.

Out of the 31 responses 17 answered no, the district did not provide any in-house professional development. Only two responses deviated from the others. One chairperson wrote, "Not specifically, but the school was supportive if the individual wanted additional professional development and time was available as part of our current PD system." And another wrote, "Several full day, professional development days on how to teach world history with an online curriculum." Anther 3 responses made reference to how teachers were sent to College Board approved sites (specific reference was made to Taft) to receive training for AP classes. These responses will not be included because the question specifically asked about *"in-house professional development"* and being sent to College Board training would not constitute "in-house."

The eighth and final question explored the theme of professional development even further by asking, *"If yes, what other supports did you provide the teacher?"* This question was more directed toward what the department chairperson has done to help prepare the teacher. Out of the 31 responses 10 stated that they utilized peer support. One person wrote, "The Psychology teacher had a period where she worked independently to plan her course, which was different from most teachers in the department. When this person retired, she and the new teacher were given planning time together last year to prepare the new teacher for the course." Another response stated, "Teams of between 3-5 teachers is the most effective way to support teachers as they develop new content knowledge." Another example said, "My role as a department chair, I help provide the supports, we also have student centered learning coaches that can help plan with the teacher." Another wrote, "Share my resources and ask teachers who have taught these courses to work together." This was not the only reference to sharing of resources.

Altogether 6 references were made to the sharing of resources with teachers to help prepare them to teach a class that they had no undergraduate preparation to teach. Some examples, "funds to buy resources," "purchase of additional resource materials," "textbook resources," and "time to plan and resources." Another 3 responses made reference to curriculum. One example of this stated, "I also work hard to have well articulated curriculum maps. It's hard for someone to take on a course and have an ill-defined curriculum." Another two responses made reference to the use of PLC time, two responses indicated the sharing of lesson plans, and another two responses spoke of giving extra time to prepare to teach the new class content. One response made reference to the use of goals to focus on content preparation and one response made reference to professional development.

Summary

The quantitative and qualitative data reported in this chapter shows that the majority of social studies department chairpersons either agrees or strongly agrees that there are content knowledge gaps in the Social Studies (#026) certification. The content areas of concern are primarily: Economics, Psychology, Sociology, and Anthropology. The content areas of the least concern were: United States History, World History, and Government (Civics). Department chairs indicated that the most difficult classes to staff are AP level classes, UCONN ECE level classes, and Economics classes. Many department chairpersons have assigned teachers to teach classes that they have had no content knowledge preparation in as an undergraduate. The strategies used to prepare these teachers are peer mentoring, independent research, and a close following of the curriculum. The majority of these teachers do not receive professional development from

the district to help them prepare. Department chairpersons support these teachers through

peer support, sharing of resources, and through curriculum. Overall the data suggests that

according to the perceptions of department chairpersons, social studies teachers do not

have an adequate level of content knowledge to teach about half of the content areas they

are certified to teach under the Social Studies (#026) certification. More than half of the

department chairs surveyed assigns teachers to teach classes they have no content

knowledge preparation to teach. In this situation the majority of districts provide no in-

house content-based professional development. The responsibility of preparing these

teachers falls to other teachers who help them mostly through peer mentoring.

Chapter 5: Conclusions and Implications

Summary of Results

Overall the results of this study revealed that the majority of social studies department chairpersons in the state of Connecticut show some level of concern regarding a lack of content knowledge in particular content areas encompassed within the #026 History/Social Studies, 7-12 certification. However, based on the results they did not express concern about the #026 certification *itself*. Out of those surveyed 51% either agreed or strongly agreed that the #026 certification requires teachers to have *adequate* training in content knowledge necessary for the modern classroom. Out of those surveyed only 32% either agreed or strongly agreed that the content categories contained within the Connecticut #026 History/Social Studies, 7-12 certification are too numerous compared with 42% that either disagreed or strongly disagreed with this question. Most department chairpersons (58%) answered that they do not struggle matching teachers to classes and creating schedules because many teachers lack content-knowledge in certain content categories. These results suggest that most department chairpersons believe that as a whole the #026 certification is adequate in requiring adequate training in content knowledge and they do not struggle matching teachers to classes and creating class schedules.

The area of concern for department chairpersons was in regards to particular content knowledge categories. Altogether 62% either agreed or strongly agreed that there are content knowledge gaps in the Social Studies #026 certification. Only 19% disagreed with this, which was equal to the number of those who neither agreed nor disagreed. After analyzing the data these areas of concern became clear. Department chairpersons are confident that their teachers have a sufficient level of content knowledge in U.S.

History (84%), World History (58%), and Government/Civics (68%). The content areas of concern included Geography where only 45% of those surveyed believed teachers possessed sufficient content knowledge. Other content areas fared worse. Out of those surveyed only 10% agreed that teachers had a sufficient level of content knowledge in Economics and 77% disagreed that teachers have a sufficient level of content knowledge in Economics. In Psychology and Sociology 52% disagreed or strongly disagreed that teachers have a sufficient level of content knowledge and for Anthropology 84% disagreed or strongly disagreed. Department chairpersons noted that AP classes, UCONN ECE classes, Economics, and Social Sciences (Psychology, Sociology, and Anthropology) are the most difficult to staff based on content knowledge preparation. The easiest classes to staff were United States History, World History, and Government (Civics) based on content knowledge preparation.

Out of the 31 department chairpersons surveyed 18 stated that they *have* assigned a social studies teacher to a course in a content area in which they had no undergraduate coursework. In order to prepare these teachers the data indicates that preparation is done through peer mentoring and independent research. Out of the 31 department chairpersons surveyed 17 responded that their school district did not provide professional development for teachers being asked to teach classes in a content area in which they have had no content knowledge preparation. Department chairpersons support these teachers by fostering peer support, sharing resources, providing curriculum, utilizing PLC time, and sharing lesson plans.

Discussion of Results

Department chairpersons surveyed were hesitant in their responses to criticize the #026 certification *overall* but were clear in their concern that there are certain content areas encompassed within the #026 certification. The data suggests that social studies teachers are generally weaker in some content categories than others although the #026 allows them to teach classes even in these weaker areas. According to the perceptions of department chairpersons social studies teachers are generally coming into the profession with insufficient content knowledge preparation in Economics, Geography, Psychology, Sociology, and Anthropology. However, they are generally well prepared to teach United States History, World History, and Government (Civics). Therefore, out of the 8 content knowledge categories encompassed within the #026 History/Social Studies, 7-12 certification more than half are content areas of concern for department chairs. One possibility going forward would be to create separate certifications in the area of social studies similar to what is found in science. For science teachers in Connecticut there are 5 different certifications: #030 Biology, #031 Chemistry, #033 Earth Science, #034 General Science, and #032 Physics. The problem with this model of certification is that it is one of the factors that have led to science 7-12 becoming a teacher shortage area. If the #026 social studies certification were divided into various different certifications than it is likely that social studies would become a shortage area as well. For example, it would be difficult to find Sociology or Anthropology teachers and to provide them with a full schedule, particularly at smaller schools. Therefore all 8 content categories encompassed within the #026 remain intact: U.S. History, World History, Government, Geography, Economics, Psychology, Sociology, and Anthropology.

But the problem still remains. The results indicate that 5 out of the 8 content knowledge categories are areas of concern for department chairpersons. This concern is compounded with the increasing emphasis on AP and UCONN ECE enrollment in districts throughout the state of Connecticut. Out of the 31 department chairpersons surveyed 21 out of 31 (67%) answered that AP classes were the most difficult to staff. Another 5 answered that UCONN ECE classes were the most difficult to staff especially considering the content knowledge requirements of teaching the UCONN ECE courses. But the difficulty in staffing is not restricted to higher-level courses (AP or ECE). Out of those surveyed 16 stated that Economics was difficult to staff and another 16 that various Social Sciences (Psychology, Sociology, and Anthropology) were among the most difficult to staff. This combination of increased higher-level class enrollment as well as a lack of undergraduate content knowledge preparation has led to this difficulty for department chairpersons. The question that must be asked is how can social studies teachers be reasonably expected to teach college level classes in content areas that they have little to no undergraduate content knowledge preparation in? Content knowledge is important to the success of any teacher and if teachers are being asked to teach college level courses in areas they have little to no content preparation in then it is only reasonable to expect that these teachers will struggle.

Another area of concern brought out in the data is the lack of support for teachers that are being asked to teach classes in content categories that they have had little to no preparation. Out of those surveyed 23 of the 31 department chairpersons stated that they do consider a teacher's undergraduate preparation in content area expertise when assigning courses. But then 18 department chairpersons stated that they *have* assigned a

social studies teacher to a course in a content area in which they had no undergraduate coursework. Therefore the expectation of 18 social studies departments throughout the state of Connecticut is that teachers will teach courses in content they have received no training or education as an undergraduate to teach. When asked how teachers developed this content knowledge most answered it was done through peer mentoring and independent research. Others said it was done through a close following of the curriculum and the textbook. Only one chairperson answered the preparation was done through professional development and only one answered it was done through the use of online resources. Overall districts do not provide in-house professional development to help these teachers. Out of those surveyed 17 out of 31 answered that their district provided no in-house professional development for these teachers. Department chairpersons attempt to help these teachers through encouraging peers support, sharing resources, curriculum, PLC time, sharing of lesson plans, and extra preparation time. Overall, there are no systematic programs developed by districts for helping these teachers learn content knowledge in which they have no undergraduate preparation.

Discussion of Conclusions in Relation to the Literature

Content knowledge is essential to the success of any teacher (Harris and Bain, 2010). If a teacher does not have an adequate grasp of content their student's understanding of the content will be negatively impacted. "Common sense asserts that teachers need content knowledge to teach. Most everyone subscribes to the axiom that teachers cannot teach what they do not themselves know and understand" (Harris and Bain, 9). Since teachers cannot teach what they themselves do not know and understand it is unreasonable that so many are being expected to do just that in social studies

departments throughout the state of Connecticut. It is unreasonable to expect teachers to teach courses in Economics, Sociology, or Anthropology without having any background in the content themselves. If teachers are being expected to teach courses in content areas that they do not know or understand the very least a district could do is support them with professional development. This is especially true when they are being expected to teach classes on the AP or early college level. There has been an extensive amount of research done regarding the inadequacy of teacher preparation programs in the 21st Century, and the failure of teacher preparation programs to adequately prepare teachers for the rigor of the modern classroom, especially in the area of Social Studies (Harris and Bain, 2010; Swansinger, 2009; Bain and Moje, 2012). Propositions to rectify these issues are far beyond the scope of this study so they will not be discussed here. However, there must be another way to help teachers once they have already been given their first teaching assignment.

The research presented here suggests the best way forward is for social studies departments to utilize personalized, individualized, online, professional development to help teachers develop content training in weak content areas. This online professional development should be focused on developing content knowledge in areas that teachers have received no preparation. Unfortunately, much modern professional development does not focus on teacher growth in content knowledge. An example of this trend is Professional Learning Communities (PLCs). Subject matter content and how students learn that content is not included in PLC models nor are methods of doing so regularly addressed in the literature on PLCs (Hiebert, Gallimore, & Stigler, 2002, Bausmith & Barry, 2011). Designing professional development in a way that will benefit everyone

participating in it may be an impossible task. But the Internet provides opportunities for educators and educational leaders that were not possible even a decade ago. Online professional development has much potential. "A small but growing number of empirical studies [have] demonstrated that participation in online professional development can increase teachers' content knowledge" (Goldenberg, et al. 291). Online professional development offers many potential benefits such as having the potential to be both highly *adaptive* and highly *specified* to meet teacher needs (Koellner and Jacobs, 2014). This would be particularly helpful in areas such as social studies where teachers may be teaching a wide variety of different courses that fall under 8 different content categories. Another potential benefit of online PD is *customization*. Customization allows for teachers to meet their content specific needs in a way that would be adapted to their working environment (Gamrat, C., Zimmerman, H. T., Dudek, J., & Peck, K., 2014). In the case of social studies various teaches within the same department could be gaining vital content knowledge simultaneously in different content categories that reflect their specific teaching schedule.

An example of utilizing personalized, individualized, online, professional development in social studies would be as follows. Various teachers are assigned to teach classes in which they have had little to no content knowledge preparation in for the upcoming school year. One teacher has to teach AP European History, one teacher has to teach a class in Economics, and one teacher has to teach AP Psychology. The department chairperson can receive funding from the district to provide these teachers with time and resources to learn content *simultaneously* and *independently* online. The chairperson may buy the teachers rights to access courses through the Great Courses

(www.thegreatcourses.com). The Great Courses offers college level classes in European History, Economics, and Psychology. Teachers would be given professional development time to go through the courses and gain critical content knowledge that will help them teach their assigned courses the following year. Having professional development time to learn content would be more advantageous and practical than having professional development that does not focus on content knowledge.

Limitations

Some potential limitations would be funding, teacher interest and motivation, and accountability. The Great Courses mentioned above are not cheap. Most courses are around $150 and some could be up to $400. Districts may not be willing to fund whole departments of social studies teachers taking online courses and would rather continue to expect teachers to gain the content knowledge on their own. Another limitation may be teacher interest and motivation. Online learning is highly learner driven. If teachers are not interested or motivated to learning new content independently this model may not fulfill its potential. Another challenge would be keeping teachers accountable for their learning. If the district is willing to pay over $100 for a teacher to take a course there should be some system of accountability in place to make sure that the teacher takes the time to learn the content they have been provided with. This would potentially lead to union issues unless professional development time is provided for the teacher to go through the course.

Recommendations for Further Study

An area for further study would be how to systematically develop content-based professional development models for social studies departments. These should be

developed in a way that utilizes the plethora of resources that are available online. These systematic models should also include accountability measurements for the teachers that are participating in them. A system of extrinsic motivation would also be helpful, such as continued education credits.

Another area of further research would be how a social studies teacher's level of content knowledge impacts their effectiveness as a teacher. Research has been done in Science (McNeill and Knight, 2013; Goldenberg, et al., 2014) and in Math (Koellner and Jacobs, 2015; Orrill and Kittleson, 2014) but there has been less study done in this area regarding Social Studies. Perhaps when there are more compelling cases presented that a social studies teacher's level of content knowledge significantly impacts their performance in the classroom then professional development in this area will be seen as a more pressing matter.

Conclusion

Content knowledge is important to the success of any *teacher* and therefore to the success of any *student* as well. "Teachers cannot teach what they do not themselves know and understand" (Harris and Bain, 9). Having an inadequate level of content knowledge leads to inadequate teaching and learning. Social studies classes are a critically important area of study, and arguably, they are becoming more and more critical as we move further into the 21st Century. In these days of sharp political partisanship students need to learn about civil discourse by taking classes in Civics and Government. In these days of ever-increasing global threats posed by Terrorist groups, studies in World History are critical to an understanding of how the modern world got here. With the increased racial and ethnic divides being sharpened in America, a study of American History is perhaps

the only key to an understanding of these tragic phenomena. To be ignorant of the past is to be ignorant of the present.

This also applies in areas such as Psychology. For example, it is important that students are exposed to various Psychological disorders to help them have a broader understanding of others they will come into contact with throughout their lives. Students should have a basic understanding of Economics, as they will be growing up in a very uncertain Economic environment. A student's understanding of Geography is also critical. Many students today cannot find Afghanistan, Iraq, or Syria on a map. Many more examples could be provided here that would encompass the other content areas that are taught in social studies classes across Connecticut. I believe we are obligated to provide the next generation of Connecticut students a content-rich and engaging social studies education to help prepare them for the world they will be growing up in. In order for this to be provided for these students social studies teachers must be adequately prepared for all the content categories they may be required to teach. This paper suggests a way that this could be done.

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Appendices

Survey Instrument

1. **A Social Studies teacher's level of content-knowledge is important to their effectiveness as a teacher. ***
Mark only one oval.

   ◯ Strongly Disagree

   ◯ Disagree

   ◯ Neither agree nor disagree

   ◯ Agree

   ◯ Strongly Agree

2. **The content categories contained within the Connecticut #026 History/Social Studies, 7-12 Certification are too numerous. ***
Mark only one oval.

   ◯ Strongly Disagree

   ◯ Disagree

   ◯ Neither agree nor disagree

   ◯ Agree

   ◯ Strongly Agree

3. **New social studies teachers in my district possess sufficient content knowledge in the area of US History. ***
Mark only one oval.

   ◯ Strongly Disagree

   ◯ Disagree

   ◯ Neither agree nor disagree

   ◯ Agree

   ◯ Strongly Agree

4. **New social studies teachers in my district possess sufficient content knowledge in the area of World History. ***
Mark only one oval.

   ◯ Strongly Disagree

   ◯ Disagree

   ◯ Neither agree nor disagree

   ◯ Agree

   ◯ Strongly Agree

5. **New social studies teachers in my district possess sufficient content knowledge in the areas of Government, Civics, and Political Science.** *

Mark only one oval.

◯ Strongly Disagree

◯ Disagree

◯ Neither agree nor disagree

◯ Agree

◯ Strongly Agree

6. **New social studies teachers in my district possess sufficient content knowledge in the area of Geography.** *

Mark only one oval.

◯ Strongly Disagree

◯ Disagree

◯ Neither agree nor disagree

◯ Agree

◯ Strongly Agree

7. **New social studies teachers in my district possess sufficient content knowledge in the area of Economics.** *

Mark only one oval.

◯ Strongly Disagree

◯ Disagree

◯ Neither agree nor disagree

◯ Agree

◯ Strongly Agree

8. **New social studies teachers in my district possess sufficient content knowledge in the area of Psychology.** *

Mark only one oval.

◯ Strongly Disagree

◯ Disagree

◯ Neither agree nor disagree

◯ Agree

◯ Strongly Agree

9. **New social studies teachers in my district possess sufficient content knowledge in the area of Sociology.** *

Mark only one oval.

- ⬭ Strongly Disagree
- ⬭ Disagree
- ⬭ Neither agree nor disagree
- ⬭ Agree
- ⬭ Strongly Agree

10. **New social studies teachers in my district possess sufficient content knowledge in the area of Anthropology.** *

Mark only one oval.

- ⬭ Strongly Disagree
- ⬭ Disagree
- ⬭ Neither agree nor disagree
- ⬭ Agree
- ⬭ Strongly Agree

11. **The state requirements for certification in Social Studies (#026) require teachers to have adequate training in content knowledge necessary for the modern classroom.** *

Mark only one oval.

- ⬭ Strongly Disagree
- ⬭ Disagree
- ⬭ Neither agree nor disagree
- ⬭ Agree
- ⬭ Strongly Agree

12. **There are content-knowledge gaps in the Social Studies (#026) certification process in Connecticut.** *

Mark only one oval.

- ⬭ Strongly Disagree
- ⬭ Disagree
- ⬭ Neither agree nor disagree
- ⬭ Agree
- ⬭ Strongly Agree

13. **I struggle matching teachers to classes and creating schedules because many teachers lack content-knowledge in certain content categories. ***

Mark only one oval.

- ( ) Strongly Disagree
- ( ) Disagree
- ( ) Neither agree nor disagree
- ( ) Agree
- ( ) Strongly Agree

14. **Do you consider a social studies teacher's undergraduate preparation and content area expertise when assigning courses? Why or why not? ***

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15. **Based on content knowledge preparation, which courses are the most difficult to staff? List them below (please include AP classes). ***

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16. **Based on content knowledge preparation, which courses are the easiest to staff? List them below (please include AP classes). ***

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17. **Have you ever assigned a social studies teacher to a course in a content area in which they had no undergraduate or graduate coursework? Yes or No? ***

_____

18. **If yes, what was the course? ***

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19. **If yes, how did the teacher develop the content knowledge necessary to teach the course? ***

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20. **If yes, did your district provide an in-house professional development for the teachers? If yes, what was the PD? ***

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21. **If yes, what other supports did you provide the teacher? ***

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