How well are secondary social studies teachers prepared to teach global education? Pre-service teacher and faculty’s perspectives of the implementation of global education in teacher education programs in Taiwan

Dissertation

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By

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Abstract

This mixed method study investigated “How well are secondary social studies teachers prepared to teach global education? Pre-service teacher and faculty’s perspectives of the implementation of global education in teacher education programs in Taiwan.” Survey questionnaire and document analysis were employed in this study. A total of 275 survey questionnaires were collected from pre-service teacher participants and 11 survey questionnaires were collected from the faculty participants. Survey data were analyzed using SPSS software. Qualitative findings were organized around emerging themes throughout the study.

The pre-service teacher participants reported that the effectiveness of teacher education programs in preparing them to teach global education is closer to but less than “Average.” The faculty participants reported the effectiveness of the teacher education programs they taught in to be “Average” and better. However, around half of the pre-service teachers had no experience taking courses related to global education such as those that: 1) discuss global issues, conditions, or development, 2) introduce different countries, cultures or people, 3) teach global connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe, and 4) deal with the power conflict or discrimination of different countries, people, and cultures.
Pre-service teacher participants identified “Adding related courses” to be the most needed factor in the training of social studies teachers to teach global education in teacher education programs in Taiwan. This result was very similar to the finding reported by the faculty participants. Furthermore, seven themes emerged from the list of 115 factors reported by the pre-service teacher participants regarding the open-ended survey questions that asked them regarding the factors that support the implementation of global education in the existing teacher education programs. These seven categories included: 1) the impact of globalization, 2) curriculum, 3) teachers’ expertise and preparation, 4) the improvement of technology, 5) government policies, 6) international/global perspectives, and 7) course contents and teaching materials. From the faculty participant responses regarding the same question, two major themes emerged: MOE policies and curriculum.

Around 61% of pre-service teacher participants reported that the overall existing courses offered by teacher education programs constrained the implementation of global education. Also, eight themes emerged from a total of 246 constraining factors from the pre-service teacher participant responses regarding this inquiry, and are listed as follows: 1) curriculum, 2) teachers’ expertise and preparation, 3) government policies, 4) time constraints, 5) examination/test system, 6) teaching materials, 7) language training/constraints, and 8) insufficient resources.

The results regarding the formal preparation in content areas related to global education in teacher education programs in Taiwan were reported. Furthermore, the
differences between the findings of the study and the literature regarding preparing teachers to teach global education were identified.

The above findings have several implications for teacher education preparation and research, as well as political/policies implications.
Dedication

Dedicated to my parents,

my parents-in-law,

my brother,

my husband,

and my daughters
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First, I would like to thank my advisor, Dr. Steven Miller, for offering his expertise and guidance in my journey of working on a doctoral degree. I would also like to express my appreciation for his encouragement, support and trust in working with me on my dissertation from its start to its completion. Without his support and encouragement, I won’t be able to continue my journey of working on a doctoral degree let alone to finish my dissertation. I also want to thank Dr. Antoinette Errante and Dr. Merry Merryfield for their guidance and willingness to serve in my dissertation committee.

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and to my daughters, Andrea and Alison, may this work inspire you to follow and work on achieving your own dreams.
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Chapter 1

Introduction

There are three major reasons to investigate how well secondary social studies pre-service teachers are prepared to teach global education in teacher education programs in Taiwan. First, Taiwan is no exception to the impacts of globalization. Clear evidence of these impacts in Taiwanese society includes 1) the increased numbers of foreign workers and spouses, 2) global warming and environmental degradation and, 3) the continuing growing economy and cultural integration. Second, Taiwanese society is experiencing a dramatic change. Population change and tension between different ethnic groups in Taiwan have caused serious concerns in recent years. Furthermore, not only has the population composition of Taiwan become more diverse due to the importation of foreign workers and the increasing number of foreign spouses, but the New Taiwanese\(^1\) has also added to the complexity of Taiwanese cultures.

Third, scholars and educators indicated that global education has been implemented in Taiwan. Kao (2005) pointed out, that “cultural learning and

\(^1\) New Taiwanese: People who are born In Taiwan but with at least one foreign born parent because of the inter-racial marriage.
international understanding is required by the “ten core competences\(^2\)” of subject areas. In social studies specifically, global connections is one of the nine thematic strands\(^3\) which pointed out the importance of cultivating global perspectives” (p.117). Hong (2003) stated, “Global education has been infused into different learning areas because in the newly implemented Grade 1-9 Curriculum, cultural learning and international understanding are included into the ten core competence (p.2). Moreover, Chen & Perng (2007) argued, “Grade 1-9 Curriculum also includes global education and curriculum into its learning contents for elementary and secondary students” (p.5). Therefore, there are evidence of the implementation of global education in Taiwan.

Because of the impacts of globalization and a profound societal change in Taiwan, it is now necessary to examine whether teachers are prepared to address new challenges as a result of globalization. Furthermore, since the population in Taiwan is becoming more diverse, schools will soon need to provide knowledge and information related to global perspectives in order to better serve a diverse student population.

Scholars and educators indicated that global education has been implemented in

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\(^{2}\) Ten core competences: In order to achieve the course goals of the Grade 1-9 Curriculum, the design of the compulsory education should focus on the students and on their living experiences an on cultivating the basic competencies required for modern citizens. Ten core competences include 1) understanding oneself and developing oneself’s potential 2) appreciation, performance and innovation 3) career planning and lifelong learning 4) expression, communication and sharing 5) respect, care and teamwork 6) cultural learning and international understanding 7) planning, organizing and practicing 8) the use of information and technology 9) exploring and researching actively and, 10) independent thinking and problem solving.

\(^{3}\) There are nine thematic strands for social studies learning area and making global connection is one of them. These nine thematic strands include 1) people and space, 2) people and time, 3) evolution and change, 4) meaning and value, 5) self, interpersonal and group, 6) power, rules and human rights, 7) production, distribution and consumption, 8) science, technology and society, and 9) global connections.
Taiwan therefore, it is now the right time to investigate whether teachers are prepared to teach global education.

Teachers, who bear the responsibilities and have the most influence in teaching our children in the classroom, directly face these academic needs. Teacher education programs in Taiwan are provided by normal/educational universities, universities with departments of teacher education, and universities with teacher education centers. They are the major agencies for preparing secondary social studies teachers. Therefore, there is a need to study how well secondary social studies teachers are prepared to teach global education in order to have a better understanding of the implementation of global education in teacher education programs in Taiwan.

My primary goal in this study is to explore perspectives of secondary social studies pre-service teachers and university faculty and leaders in order to find out how well secondary social studies teachers are prepared to teach global education in teacher education programs in Taiwan. This chapter, then, states the major research question and related questions that help form this research.

The aim of the following section is to describe how to conduct this research. There are two major research methods that will be employed in this study—survey and document analysis.

The section following the research methods section introduces the significance and limitations of this study. The last part of this chapter provides the definitions of terms including Secondary Education, Junior High School, Senior High School, Social
Studies, New Taiwanese, Global Education, Global Perspectives, Standards, Multicultural Education and Teacher Education Program, as used in the present study.

1.1 Rationale

“Globalization is transforming the world and people’s lives” (Lo & Merryfield & Po, 2006, p.286). Taiwan is no exception. Examples of the impacts of globalization in Taiwanese society are many. The most pervasive one is the increased numbers of foreign workers and foreign spouses due to the importation of foreign workforces and inter-racial marriages. Furthermore, not only do foreign workers and spouses make the population in Taiwan more diverse, but also children born from inter-racial marriages, who have added to the complexity to Taiwanese cultures. This “changing demographics” as stated by Steward (2007), is one of the trends of globalization (p.9).

The second example of the impacts of globalization in Taiwan is global warming and environmental degradation. The title of the special issue of the CommonWealth (2007) magazine in Taiwan stated, “Global warming, Taiwan does not want to face the truth.” This article pointed out that global warming is a serious issue in Taiwan by providing scientific evidence along with its argument. As Adams & Carfagna (2006) pointed out, “The environment and environmental challenges perhaps best illustrate the degree of connections on planet Earth” (p.39). Ironically, even though global warming has affected Taiwanese people gradually, no clear evidence shows that any effective solutions have been proposed in order to solve this problem. Therefore, most people in Taiwan are not fully aware of how serious the effects of global warming can be.
Third, economic growth has long been an important indicator for globalization. According to the Department of Statistics, Ministry of Economic Affairs, R.O.C., the total amount for export goods from Taiwan and imports from the world to Taiwan has continued to grow in the past ten years. Taiwan, as one of the Four Asian Tigers, is world famous because of its rapid industrial growth and economic prosperity. Because of the economic prosperity and the improvement of communication technology and transportation, cultural integration of cultures is pervasive in Taiwanese society. A clear evidence and reflection of how people’s lives are changing and affected by globalization could be seen from people’s daily lives—the food they eat, clothes and shoes they wear, holidays they celebrate, transportation they take and cars they drive, and more.

Issues related to or tensions between different ethnic groups in Taiwanese society have caused serious concerns in recent years. For instance, some people try to differentiate and separate Taiwanese from Mainlanders especially during elections. Candidates from different parties “use” the ethnic groups’ issues in order to pursue their political goals (“Expert,” 2008). Moreover, “issues and concerns related to different ethnic groups in Taiwanese society will not go away in short time” (“Expert,” 2008). Even though “globalization has accelerated international migration” and diverse population in a country “mirrors the diversity of the world,” Taiwanese society is still working on the domestic issues about its different ethnic groups.

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4 Mainlanders: People who escaped from Mainland China in 1949 by moving into Taiwan because of the defeat in the Chinese Civil War.
Therefore, more knowledge of other cultures is needed in order to initiate better solutions to help resolve these issues.

However, “Globalization is altering nearly every dimension of our lives. But we are failing to keep pace” (Adams & Carfagna, 2006, p.6). Let us take the previous mentioned issues, problems, and concerns in Taiwanese society as examples. First, issues and problems related to foreign workers and spouses continue to occur. For instance, in August 2005, more than 100 Thai laborers protested in Kaohsiung because of what they called “unfair and unjust” treatment (The China Post Staff, 2005). Moreover, human rights issues, domestic violence, and concerns for immigrant status for foreign spouses need to be solved. As Lin (2006) suggested, Taiwanese people have to learn how to be more tolerant of immigrants from the world and have to adjust and balance the interaction between education and cultures in Taiwan. Furthermore, Taiwanese people have to re-examine, reflect, and improve education from the perspectives of sexuality, ethnic-groups, age, and socio-economic status in order to fulfill the goal of multicultural education (p.8).

Second, global warming and environment degradation are worldwide problems and “Solving these problems will require international cooperation among governments, professional organizations, and corporations” (Steward, 2007, p.8). In addition, the challenges of keeping economic competence and understanding the complexity of cultural issues indicate that “Today, we need deeper knowledge, such as understanding significant global trends in science and technology, how regions and
cultures have developed and how they interconnect, and how international trade and the global economy work” (Stewart, 2007, p.9).

“In response to the challenges of globalization, scholars and educators have been calling for the infusion of global education into school curricula in order to enable children to adapt to the complex and changing contexts, as well as to live in an increasingly interdependent and culturally diverse world” (Kniep, 1986; Case, 1993; Edwards & Usher, 2000; Bacon & Kischner, 2002; Banks, 2004; Merryfield, 2004; Merryfield & Kasai, 2004; Cited from Lo & Merryfield, & Po, 2006, p.286). As Kao (2005) argued, it is important to implement global education because it is closely related to our daily lives (p.116). Kao (2005) continued to state, in response to the trends of globalization, we have to consider these two questions: 1) how to make education emphasize the diverse and respectful of localism, understanding the similarity and differences of world views for different countries, cultivating a trusting and dependent global perspective aimed at world peace; and 2) how to prepare people with global knowledge and skills in order to become effective world citizens working for the development of the global society and world peace? Therefore, the implementation of global education is becoming a critical issue for teachers and teacher educators (pp.116-117).

Policy makers in Taiwanese government have noticed the impact of globalization and the need to prepare students to meet these challenges. We can find profound evidence from policies of the Ministry of Education (MOE). These policies include 1) the requirements of learning English from an early grade (third grade) and,
2) cultural learning and international understanding as one of the ten core competencies for all students and different learning areas (MOE, 2000). One of the mandated requirements for social studies specifically requires students to learn how to make global connections and to develop global perspectives. According to Hong (2003), the requirement of cultivating global perspectives for the elementary social studies standards before 1975 and in 1993 were for 5th and 6th graders. However, the ten core competencies for different learning areas requires students to learn different cultures and to develop international understanding. Hong (2003) stated that global education is already infused into different learning areas (p.2).

However, there are still other concerns for education in today’s globalized world. According to Becker (2002), “The gap between world conditions and what we teach about these conditions still exists. …The education community seems to be, once again, gearing up to the task of reducing the gap between what is taught in our schools, colleges, and universities and the realities of world conditions” (p.56). From the previously mentioned issues and concerns in Taiwan, Taiwanese society seems to be on the same page, as pointed out by Becker’s argument. However, “We concurred that current practice does not suffice, but we also recognized that improvement based in a realistic assessment of social needs can and must occur” (Anderson & Landman, 2003, p.6). Again, the importance of global education is stressed by Becker (2002),

Globalization may have sufficiently transformed the way the world works and provided sufficient evidence that this is not a temporary crisis calling for additional attention in international developments, as we have so often done in the past. Rather, only by making international/global studies an integral part of the curriculum can schools hope to meet
today’s challenge of preparing students for effective citizenship in an economically integrated, but politically divided world (pp.56-57).

When considering “What should the skill set of an educated person in a global society be,” global education provides a promising answer (Adams & Carfagna, 2006, p.157). Becker (2002) pointed out, “A major challenge in the new millennium is to develop the international dimension of education to correspond to the realities of the globally interrelated and diverse world of the 21st Century” (p. 51). Moreover, the following paragraph can best describe what knowledge and skills we need to live in this globalized world. Quoted from Adams & Carfagna (2006) at length,

“It is more important to be able to find, analyze, and synthesize information to advance knowledge and solve problems. The workers and citizens of the twenty-first century will be successful not because they own more information, but because they locate and use information to find solutions. …Even more critically, educated people in the twenty-first century must understand the individual’s role in our global society. An educated person is someone who can look beyond the local and identify the global parameters of each and every question; someone who can embrace other identities and comprehend other viewpoints; someone who understands complex interrelationships and is comfortable in diverse environments. Being educated means being able to connect the dots and gain a sense of the big picture. To keep pace with the forces of globalization requires a global education” (pp. 158-159).

In Taiwan, there are some teachers and scholars promoting global education. According to Shan (2002), Education Reform Association of the Executive Yuan indicated that it is important for a modern-world person to have global perspectives and a sense of global village. It is more important for teachers who bear the responsibility of educating people to have knowledge and skills of global perspectives. To address these, teacher education programs have to pay more attention to the trend of globalization and to emphasize the cultivation of global perspectives and global
knowledge and skills (p.224). Furthermore, Kao et al. (2002) pointed out three reasons for the implementation of the global education in teacher education programs in Taiwan. These three reasons include, to keep the higher education more competitive in the future, to fulfill the needs of the Nine-Year Comprehensive Curriculum for the Elementary and Junior High Education\(^5\) (Grade 1-9 Curriculum), and to follow up the development trend of education programs abroad (pp.90-91).

However, no matter how important global education is, teachers cannot teach what they do not know. Therefore, it is critical that we examine teacher education programs in preparing secondary social studies teachers and understand perspectives of pre-service teachers and university faculty and leaders in regards to the implementation of global education in teacher education programs in Taiwan.

Studying what content knowledge is really taught in teacher education programs in preparing secondary social studies teachers is equally important. According to Becker (1991), “Radical shifts in our economy and the increasingly pluralistic nature of our population are forcing a reexamination of what and how we teach” (Becker, 1991, p.81). While facing population changes and issues related to ethnic groups in Taiwan, we have not seen many effective actions taken in order to address these challenges. In terms of education, policies that are related to fulfill our students’ and teachers’ needs are not sufficiently mandated either. Because of the profound impact of globalization

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\(^5\) The Nine-Year Comprehensive Curriculum for the Elementary and Junior High Education (Grade 1-9 Curriculum): A new curriculum reform which has implemented since 2001. Grade 1-9 Curriculum aims to meet to the high societal expectations on the education reform by incorporating new curriculum concepts and to integrating curriculum in order to improve teaching and learning. Grade 1-9 Curriculum integrates all subjects into seven learning areas, language, mathematics, social studies (including life curriculum for grade 1 and 2), health and physical education, integrative activities, arts and humanities, and science and technology.
and the dramatic societal changes in the country, most people in Taiwan are not ready for this new era. One of the concerns is, as Alger (2003) pointed out, “we have not yet fully grasped the educational implications of globalization. How might we help our students to perceive their involvement in globalization, to discern the consequences of their actions, and to ponder alternative forms of action” (p.20)? Therefore, it is important to think about “what kind of education will best prepare young people to fulfill their civic responsibilities in such a world” (Anderson & Landman, 2003, p.6). Investigating how well secondary social studies pre-service teachers are prepared to teach global education in teacher education programs in Taiwan will provide very useful information in helping us towards the goal of providing better education.

As we have a better understanding of the importance of implementing global education in addressing the challenges of globalization, it is the right time to investigate the status of global education in Taiwan to explore how well secondary social studies pre-service teachers are prepared to teach global education, because teachers are responsible for students’ knowledge and learning in the classrooms (Kao, 2002, 2005; Lin & Wang & Teng, 2007). The input from university faculty and leaders are important as well in order to get a more comprehensive picture of how well secondary social studies pre-service teachers are prepared to teach global education.

In Taiwan, teacher education programs have the responsibility in preparing secondary social studies teachers. Because of the challenges and impacts of globalization, “teacher educators have a critical responsibility to prepare teachers to
teach with global perspectives” (Merryfield, 1990, p.88). According to Merryfield (1990),

Teachers need knowledge and understanding of cultural universals and cultural diversity, including an appreciation of perspectives consciousness. Teachers need knowledge of global systems and the ability to teach interdependence and interconnections relevant to their students. Teachers should be prepared to teach about global issues, conflicts, and change” (p.86).

Therefore, it is crucial to research teacher education programs in order to explore how well secondary social studies pre-service teachers are trained to teach global education from the perspectives of pre-service teachers and teacher educators and leaders. Other related questions are worth investigating, including 1) what needs and barriers (or potential barriers) in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers and university faculty and leaders identify; 2) what formal preparation in content areas related to global education is in the curriculum and; 3) What differences do the findings of the four previous research questions and the literature in global education identify in order to prepare pre-service teachers to teach global education?

1.2 Statement of Research Problems

The primary purpose for this study is to answer “How well are secondary social studies teachers prepared to teach global education?” with a focus on the perspectives of the secondary social studies pre-service teachers, university faculty and leaders in teacher education programs in Taiwan. As I stated in the previous section, because of the impacts of globalization and the new social trend in Taiwan,
educational changes are needed in order to fulfill these new social needs. According to Becker (2002), “Changes in education were influenced and shaped by what was happening in the larger society” (p. 53). Anderson (1991) also stated, “The primary motors driving educational change are located outside the educational system, in the society at large. Thus, social changes generate educational change,…” (p.32). Furthermore, Shan (2001) pointed out, education reform cannot be successful without the adjustment to the point of view of the development of a whole country (p.41). Therefore, “It is crucial to recognize, however, that major educational change cannot be legislated and mandated if it is not in tune with a concurrent shift in overall public values and assumptions; it will simple wither away” (Tye, 1991, p.38). Given these points, it is important to investigate how well secondary social studies pre-service teachers are prepared to teach global education, including the perspectives of university faculty and leaders who are responsible for teacher preparation.

The major research question in this study is, “How well are secondary social studies teachers prepared to teach global education? Pre-service teachers and faculty’s perspectives of the implementation of global education in teacher education programs in Taiwan. ” However, Becker (2002) argued, “Education, however, cannot be judged solely by what has been done. It also must consider what needs to be done” (p.56). Therefore, other related questions include the following.

1a) How well do secondary social studies pre-service teachers think they are prepared to teach global education?
1b) How well do university faculty and leaders in Taiwan think secondary social studies pre-service teachers are prepared to teach global education?

2a) What needs in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers identify?

2b) What needs in training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do university faculty and leaders identify?

3a) What barriers (or potential barriers) in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers identify?

3b) What barriers (or potential barriers) in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do university faculty and leaders identify?

4) What formal preparation in content areas related to global education is in the curriculum for secondary social studies pre-service teachers in teacher education programs in Taiwan?

5) What differences do the findings of the four previous research questions and the literature in global education identify in order to prepare pre-service teachers to teach global education?
1.3 Methodology

This study intends to explore the perspectives of secondary social studies pre-service teachers and university faculty and leaders on how well teachers are prepared to teach global education in teacher education programs in Taiwan. In order to answer the research questions in this study, the research design that will be employed in this study includes survey and document analysis. The followings are details of the methodologies.

The first methodology which the researcher will employ in this study is survey. A questionnaire, as Fetterman (1989) pointed out, “is a product of the ethnographer’s knowledge about the system, and the researcher can adapt it to a specific topic of set of concerns. […] to test hypothesis about specific conceptions and behaviors” (p.65). In this study, the researcher will use survey to answer the three following questions: 1) how well secondary social studies pre-service teachers are prepared to teach global education with a focus on the perspectives of secondary social studies pre-service teachers and university faculty and leaders; 2) what needs in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers and university faculty and leaders identify; 3) what barriers (or potential barriers) in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers and university faculty and leaders identify?
By exploring points of view for secondary social studies pre-service teachers, university faculty and leaders, not only can we have better understanding of the previously listed questions, but we can also get more insights in terms of the status of global education in teacher education programs in Taiwan. Since pre-service teachers are now receiving training in teacher education programs, they are important resources in providing useful data in order to answer questions that this study intends to explore. In addition, collecting perspectives from university faculty and leaders in regards to the teacher preparation in teaching global education can add more richness to the data in this study. Thus, the survey method is appropriate in obtaining empirical data from secondary social studies pre-service teachers, university faculty and leaders in global education. Moreover, survey data, as mentioned above, will add richness to this study, help answer the research questions, and help interpret and organize the major findings of this study in a more meaningful way.

The second method which the researcher will employ in this study is document analysis. Based on my research questions, the researchers plans to collect data from three sources: 1) documents from teacher education programs that prepare secondary social studies teachers teach global education; 2) the mandated criteria pertinent to global education for secondary social studies from the MOE in Taiwan; and 3) literature that pertains to preparing pre-service teachers to teach global education.

Specifically, the data from teacher education programs that the researcher will collect include documents of how secondary social studies teachers are trained to teach global education, lists of course offerings related to global education, and
certification requirements for secondary social studies teachers. Written documents from the MOE and teacher education programs are also available containing useful data for this study. Furthermore, in order to answer the question of “What differences do the findings of the four previous research questions and the literature in global education identify in order to prepare pre-service teachers to teach global education,” reviewing literature in relation to how to prepare pre-service teachers to teach global education is essential in order to find out the gap between what the literature says and the actual findings of how well secondary social studies pre-service teachers are prepared to teach global education in teacher education programs in Taiwan.

According to Hodder (2000), written texts “are of importance of qualitative research because, in general terms, access can be easy and low cost, because the information provided may differ from and may not be available in spoken form, and because texts endure and thus give historical insight” (p.704). Systematically analyzing these written documents will not only help the researcher to answer the research questions but they can also “be used alongside other forms of evidence so that the particular biases of each can be understood and compared” (Hodder, 2000, p.704). “Because material evidence endures, it can continually be reobserved, reanalyzed, and reinterpreted” (Hodder, 2000, p.713).

1.4 Significance of the Study

Because of the impacts of globalization, the Taiwanese society is now experiencing a dramatic change. Education needs to catch up with the changes in order to respond to this new social trend and the needs created by globalization. This study
This study could provide useful information for pre-service teachers who plan to learn how to teach global education and for in-service teachers who plan to improve their teaching in global education for their professional development. The results of this study can inform teacher educators about a more practical teacher education program in order to better prepare secondary social studies teachers to teach global education.

Furthermore, this study could be used as reference for policy makers who are responsible for initiating effective educational policies and for teacher educators who are responsible for preparing and certifying secondary social studies teachers. This study can also contribute to improving future and other related education policies and teacher education programs in Taiwan by systematically examining existing data in relation to the status of global education in primary and secondary social studies.
1.5 Limitations of the Study

This study intends to explore how well secondary social studies pre-service teachers are prepared to teach global education in teacher education programs in Taiwan. As with all research, it is limited because of the research questions asked and the various processes of data collection and analysis. The findings of this study may be limited in understanding perspectives of secondary social studies pre-service teachers and university faculty and leaders in how well secondary social studies teachers are prepared to teach global education in Taiwan rather than to generalize research results to other universities or programs. Additionally, in this study, the researcher translated from Chinese to English the citations that were quoted and originally written by Taiwanese scholars. The survey questions in this study as well will initially be written in English, and will later be translated into Chinese. Therefore, it may also be limited because of the language translation of the Taiwanese scholars’ papers and survey questions and responses.

1.6 Definitions of Terms

For the purpose of this study, the following terms are defined as:

**Secondary Education**: Secondary education in Taiwan includes junior and senior high schools.

**Junior High School**: Junior high school in Taiwan consists of grades seven to nine.

**Senior High School**: Senior high school in Taiwan consists of grades ten to twelve.
Social Studies: Social studies learning area in Taiwan includes geography, history and civics/civic education three subjects.

New Taiwanese: People who are born in Taiwan but with at least one foreign born parent.

Global Education: “[…] a curriculum that seeks to prepare students to live in a progressively interconnected world where the study of human values, institutions, and behaviors are contextually examined through a pedagogical style that promotes critical engagement of complex, diverse information toward socially meaningful action” (Gaudelli, 2003, p.11).

Global education involves learning about those problems and issues which cut across national boundaries and about the interconnectedness of systems—cultural, ecological, economic, political, and technological…

Global education also involves learning to understand and appreciate our neighbors who have different cultural backgrounds from ours; to see the world through the eyes and minds of others; and to realize that other people of the world need and want much the same things (1991 U.S. Association for Supervision and Curriculum Development Yearbook, Cited from Tye’s book, 1999).

Global Perspective: “An understanding of the interdependence of nations and peoples and the political, economic, ecological, and social concepts and values that affect lives within and across national boundaries. It allows for the exploration of multiple perspectives on events and issues” (NCATE, 2006, p.54).
Standards: “Written expectations for meeting a specified level of performance. Standards exist for the content that P-12 students should know at a certain age or grade level” (NCATE, 2006, p.57).

Multicultural Education: “[…] includes not only studying ethnic cultures and experiences but also making institutional changes within the school so that students from diverse ethnic backgrounds have equal educational opportunities and the school promotes and encourages ethnic, cultural, and language diversity” (Banks, 2006, p.55).

Teacher Education Program: Teacher education program in this study is defined as “a planed sequence of courses and experiences for preparing P-12 teachers and other professional school personnel. These courses and experiences sometimes lead to a recommendation for a state license to work in schools” (NCATE, 2006, p.53).

According to the “Teacher Training Law Enforcement Rules, article III” in Taiwan, teacher education program with a total 26 credit hours requirements includes education professional curriculum and student teaching/practicum courses were planed by individual university and had to be accredited by the MOE.

In Taiwan, normal/educational universities, universities with departments of teacher education, and universities with teacher education centers provide teacher education program in preparing secondary social studies teachers.
Chapter 2

Literature Review

The purpose of this chapter is to review the related literature for the study. There are four sections in this chapter. The first section discusses what global education is. This section includes rationales, definitions, goals and implementation of global education. Section two focuses on the status of global education in Taiwan. The third section reviews literature in global education for teacher preparation. The last section of this chapter introduces the teacher education programs in Taiwan with a focus on the institutions that prepare secondary social studies teachers.

2.1 What is Global Education? Rationales, Definitions, Goals and Implementation.

2.1.1 Rationales, Definitions and Goals of Global Education

In order to get a more comprehensive picture of the rationales and conceptualizations of global education, it is important that we study the different scholar’s work and perspectives on the subject. According to Merryfield and Wilson (2005), “Three related conceptualizations of global education in the 1970s continue to influence the social studies” (p.15). Four pioneer scholars in the 1970s have contributed to these three conceptualizations including James Becker (1973),
Chadwick Alger (1974), Robert Hanvey (1976) and Lee Anderson (1979a). I will discuss these scholars’ work and related work by other scholars in details.

Becker, in the early 1970s, noticed the impact of the improvement of science and technology on the environment and society but was concerned about that people and institutions were not capable of addressing such impacts due to inadequate education preparation at that time. Becker (1973) pointed out in *Education for a global society*, “Science has changed both the physical environment and human society so much in such a short time, that many of our attitudes, our habits, and our institutions have become dangerously outmoded. Much of what is taught in schools today is remote both from the contemporary conceptualization of social scientists and the realities of a changing world” (p.9). These realities according to Becker (1973) included, (1) the improvement of communication which reduces the physical distance of people; (2) the expanding population of the world population with the unjust resource distribution; (3) a possibility of the slow down industrial growth due to an energy crisis; (4) the nation-state power is threatened by the growth of new international organizations; (5) the growing of a new world-wide culture which will have a serous impact of people’s values and traditions; (6) the growing connections of our economic activity and the threat of our physical environment; and (7) the continuation threats of the war and weapon production. Therefore, “A major challenge in the new millennium” according to Becker (2002) “is to develop the international dimension of education to corrspond to the realities of the globally interrelated and diverse world of the 21st century” (p.53).
Echoing his previous argument, Becker (2002) later on elaborated his thoughts by stating, “The global market place and worldwide communications have made us all internationalists, but we seem to be ambivalent internationalists. …A new rationale for global education may be needed or the old one updated, but most important is sustained systematic attention to current manifestations of the age-old problems of equity, fairness, and the promotion of civic virtues in a global age” (p.55). Becker’s point also proves relevant to today’s concerns about global education that people need global studies which not only provide them with needed knowledge in order to better understand the world and people but also cultivate their ability to deal responsively and more effectively to the world issues. As Becker (1982) pointed out, “In an interrelated world wherein our survival and well-being is intimately related to our capacity to understand and deal responsible and effectively with other peoples and nations and with a host of international issues, global studies can be viewed as basic education” (pp.229-230).

Even though similar to Becker, Chadwick Alger (1974) put more efforts on addressing the importance of understanding the local and international connection because people’s daily lives are surrounded by goods and services from the around the world. Despite access to goods and services from around the globe, however, Alger (1974) was concerned that “[…] very few are accustomed to perceiving the international transactions that surround them. While much is encountered, little is perceived” (p.17). Why are people incapable of perceiving local and global connections? The answer to this question, according to Alger (1974), is that “The
perceptual and analytic capacity of individuals to acquire a sense of linkage, and even a sense of meaningful routes of influences, is the missing link in international education” (Alger, 1974, p.18). Therefore, Alger (1974) argued that people have to be helped to “see the ways in which people are involved in these international links and the impact of this involvement on their lives” (p.73). Furthermore, as the world continues to become more interconnected and complicated, we need an education that will help people to see and to deal with realities. Alger and Harf (1986) pointed out that everybody needs global education because it “enables people to make decisions while taking into account the ways in which they are affected by a diversity of economic, social, political, military and natural phenomena that link together people of the world” (p.3).

Hanvey (1975) discussed that people are influenced by both formal schooling and informal socialization. However, he argued that the former has only limited impact and that the latter has more profound impact on peoples’ behaviors and attitudes. The reason explaining the previous argument as Hanvey (1975) pointed out is that “Schools are hard put to match the drama and appeal of the mass media or the grip on behavior and attitude exerted by the peer group. Furthermore, whatever is learned while young is continuously reshaped by later experience” (p.3). Thus, the schools have to “select a niche that complements the other educative agencies of the society” in order to make the formal schooling more meaningful (p.3). Hanvey’s (1975) An Attainable Global Perspective focused on to “describe certain modes of thought, sensitivities, intellectual skills, and explanatory capacities which might in
some measure contribute to the formation of a global perspective and which young people in the U.S. might actually be able to acquire in the course of their formal and informal education” (p.2). What is a global perspective? According to Hanvey (1975), a global perspective is not a quantum that people either have or have not. In fact, a global perspective is a blend of many things that some people may be rich in some elements but lack in others. He then proposed five dimensions of a global perspectives; 1) perspective consciousness; 2) state of the planet awareness; 3) cross-cultural awareness; 4) knowledge of the global dynamics; and 5) awareness of human choices.

Anderson’s (1979a) book, *Schooling and Citizenship in a Global Age*, according to Merryfield (1997) “remains one of the best rationales for global education ever written” (p.4). Anderson’s (1979a) book covered different topics and issues in order to provide a more comprehensive picture of our globalized world and for people to better understand what we need to become effective participant. He pointed out specifically in each chapter the conditions of the world and discussed the impact of globalization, including human conditions, world history, world transportation and communication, the development of global economy and political system, the growth of global culture, and the world as a global society. According to Anderson (1991), the rationales for global education include “1) changing social structure of the world which includes accelerating growth of global interdependence, the erosion of western dominance, and the declined of American hegemony and 2) the American society is getting globalized” (Anderson, 1991, pp.14-21). Anderson (1979a) defined global education as “consists of efforts to bring about changes in the content,
in the methods, and in the social context of education in order to better prepare students for citizenship in a global age” (p.15).

From reviewing previous scholars’ work, we understand that global education “refers to a historically complicated and socially complex phenomenon” (Anderson, 1979a, p.2). Moreover, we also notice that the previous mentioned scholars to some degree, define global education differently. Becker (1973) argued that people needs global studies as a basic education that will help them to see the realities of the world and to deal with global issues. Alger and Harf (1986) defined global education as an education that enables people to make decisions by taking into account the interconnectedness among people and by considering how people affect one another. Hanvey (1975) proposed an attainable global perspective that will not only balance the formal schooling and informal social impact on people’s behaviors and attitudes but will also complement the lacking abilities among people. Even though the work by Beck, Alger, Hanvey, and Anderson’s work remain the most influential documents for global education as time goes by, it is important that we examine the work of other experts who followed up on the issues in the field in order to see whether there are any similar or different perspectives, and to examine some updated knowledge and information of global education.

Kniep (1986) pointed out that “Most current reform rhetoric ignores what should be our primary concern: the nature of the world for which we are preparing today’s children. Too little is being said about how schools can meet the demands of citizenship in the world of the 21st century” (p.43). He believed that the mission of
education should “derive from our view of the world in which we live—and out
notions of what the world will be like for our students” (Kniep, 1987, p.27). The world
view held by Kniep is very similar to Becker, Alger, and Anderson. Kniep
characterized the world as rapidly changing, interdependent and pluralistic. Because of
this reason, results of some research studies and educational institutions such as
Carnegie Forum of Education and the Economy, The Southern Governor’s
Association, the Council of Chief State School Officers, The National Study
Commission of Global Education, and more are calling for “curricula change to more
accurately reflect the realities of the interdependent world in which we live” (Kniep,
1987, p.12). Kniep (1987) argued that the major goal of global education is to prepare
the youth for citizenship in the globalized world in the 21st century. According to
Kniep (1987), “The global education movement has been quite clear about the mission
of education: to prepare young people for national citizenship in the globalized society
of the twenty-first century” (p.28). The literature in global education, hence, “has a
great deal to offer a community in seeing itself in the broader context of the nation and
the world as it decides how today’s schoolchildren should be educated for the twenty-
first century” (Kniep, 1987, p.28).

Pike and Selby (1999x) argued that global education is relevant for the new era
and can bring the thinking of worldmindedness and the practice of child-centeredness
to complement formal schooling. Global education, according to Pike & Selby, (1999)
is not only “relevant learning for the new millennium” but also “brings together two
strands of educational thinking and practice that have had some marginal influence on
schooling during the past century” (p.11). These two strands include “worldmindedness” and “child-centerdness” and based on their statement, worldmindedness is “a commitment to the principle of one world, in which the interests of individual nations must be viewed in light of the overall needs of the planet” (Pike & Selby, 1999x, p.11). Education, Pike and Selby (1999x) continued to point out, “[…] has a role to play in the development of young citizens who demonstrate tolerance of, and respect for, people of other cultures, faith and worldviews, and who have an understanding of global issues and trends” (Pike and Selby, 1999x, p.11). More importantly, why focus on “child-centerdness?” Pike and Selby (1999) believed that “Central to this concept is that children learn best when encouraged to explore and discover for themselves and when addressed as individuals with a unique set of beliefs, experiences and talents” (p.11).

Instead of defining global education in a more broad way, experts in global education from the late 90s to the present seemed to have put more efforts in adding specific social issues, educational concerns and themes into their definitions. Osler and Vincent (2002), for instance, provided a definition for global education in their book, Citizenship and the challenge of global education. “Global education encompasses the strategies, policies and plans that prepare young people and adults for living together in an interdependent world. It is based on the principles of co-operation, non-violence, respect for human rights and cultural diversity, democracy and tolerance. It is characterized by pedagogical approaches based on human rights and a concern for social justice which encourage critical thinking and responsible participation. Learners are encouraged to make links between local, regional and worldwide issues and to address inequity” (p.2).
Osler and Vincent’s (2002) arguments pointed out that the aim of global education is “to build a global culture of peace through the promotion of values, attitudes and behavior which enable the realization of democracy, development and human rights” (Osler & Vincent, 2002, p.2).

Similarly, a lengthy definition provided by Adams and Carfagna (2006) includes detailed information about what global education is, what knowledge is to be taught and what skills are to be ensured. Global education according to them (Adams and Carfagna, 2006) is that:

“It is an education that ensures that individuals will be able to succeed in a world marked by interdependence, diversity, and rapid change. A global education provides knowledge and understanding of cultures, languages, geography, and global perspectives. A global education enables us to understand our roles in a global community and teaches us how our actions affect people across the world. It also demonstrates how events around the world affect us as individuals, and therefore cannot be ignored. …, a global education clearly reveals the connections that characterize our world. From the local to the national to the global, from the cultural to the political to the financial, world citizens can connect the dots that draw our world together and form new patterns of understanding. A global education considers the world as a whole, with a rich interplay of nations, cultures, and societies” (p.159).

Moreover, Adams and Carfagna (2006) cited Kirkwood’s as saying “The concept is gaining ground as more educators espouse an education “that brings the world into classroom, where teachers teach from a world-centric rather than an ethno-specific or national-state perspective”” (p.159).

A report entitled “21st century skills, education, and competitiveness” (2008) stated in the beginning section that “Creating an aligned, 21st century public education system that prepares students, workers and citizens to triumph in the global skills race
is the central economic competitiveness issue for the next decade” (Longview Foundation for Education in World Affairs and International Understanding, 2008, p.1). As schools prepare students for the real world, including that of the work force, it is necessary that we understand and acquire

“1) the fundamental change of economic, jobs and business: Over the last several decades, the industrial economy based on manufacturing has shifted to a service economy driven by information, knowledge and innovation; 2) new, different skill demands: Advanced economies, innovative industries and firms, and high-growth jobs require more educated workers with the ability to respond flexibly to complex problems, communicate effectively, manage information, work in teams and produce new knowledge; and 3) two achievement gaps: For the past decade, the United States has focused nationally on closing achievement gaps between the lowest- and highest-performing students—a legitimate and useful agenda, but one that skirts the competitive demand for advanced skills” (Longview Foundation for Education in World Affairs and International Understanding, 2008, pp.2-8).

Even though similar to the scholars’ work aforementioned, “Education for global citizenship: A guide for schools” (2006) provided three major reasons explaining why education for global citizenship is essential in the 21st century. First, “The lives of children and young people are increasingly shaped by what happened in other parts of the world” (Oxfam GB, 2006, p.1). This paper emphasized that global citizenship education will give children the necessary knowledge, understanding, and skills and values for them to be effective participants in their world. Second, “Education for global citizenship is good education because it involves children and young people fully in their own learning through the use of a wide range of active and participatory learning methods.” Third, “Current use of the world’ resources is inequitable and
unsustainable. …Education is a powerful tool for changing the world because tomorrow’s adults are the children and young people we are educating today” (Oxfam GB, 2006, p.1).

The previously reviewed literature and reports conclude that global education provides knowledge that helps us to understand the interdependent and interconnected world we are now living and cultivates abilities that enable us to address the issues and problems that cut across national boundaries; therefore preparing us to become active participants and effective citizens in the globalized world. Even thought no single definition is universally accepted for this term, some scholars such as Becker, Alger, Hanvey, Anderson, Kniep, Adams and Carfagna viewed global education as a way to provide students with knowledge that will help them to better understand this interdependent and interconnected world caused by globalization. There are other scholars who emphasized that global education cultivates students’ abilities to be able to cope with issues and problems that cut across national boundaries and to participate in the globalized world. However, the two categories discussed above are not clearly divided but overlapping. By reviewing the literature in global education through its rationales, definitions and goals from different experts in this field, we now have a more holistic picture of information and perspectives to justify two important questions, “What is global education?” and Why do we need it?”
2.1.2. The Implementation of Global Education

The implementation of global education according to Pike and Selby (1999x) contains two processes that are complementary, continuing and overlapping. These two processes as pointed out by Pike and Selby (1999x) are,

“The first is one of filtration or percolation, whereby existing practice in schools is re-evaluated in terms of our latest understanding of global realities and the consequent needs of students. Some practice, undoubtedly, will continue to be deemed important; some will appear outmoded, unnecessary or of low priority. The second process is one of enrichment. Global education ideas and approaches that have been hitherto lacking are incorporated into newly invigorated programs. In some cases, additional perspectives and activities can be infused seamlessly; in others, a reconceptualization of existing practice will be required in order to refocus attention on new priorities. The two processes are dynamic and ongoing. As in the many systems from which it is derived, the cycle of change and renewal in global education is constant (p.15).

The two ways to carry out the task of global education curriculum are through infusion or by integration. As recommended by Pike and Selby (1999x), “The task of reforming curriculum and learning and teaching methods to incorporate the key components of global education, as identified above, can be carried out in two ways; through infusion or by integration” (p.15). Specifically, “Infusion entails impregnating existing curriculum subjects, areas or topics with relevant global education knowledge, skills and attitudes, without intentionally or radically changing the structure or organization of the curriculum” (Pike & Selby, 1999x, pp.15-17). Even though infusion is an easier method to carry out global education curriculum without a big change in existing curriculum structure because of the nature of global education, integration is a preferred method in global curriculum delivery. According to Pike and Selby (1999x),
“Indeed, the introduction of global education, with its emphasis on making connections, tends to create momentum towards a more integrated delivery of curriculum” (p.17). Therefore,

“In an integrated approach the guiding premise is the organization of learning in a way that is reflective of, and most easily transferable to, real-world situations. It is based, therefore, on an understanding of the world as a system, in which the full meaning of any topic or subject matter can only be gleaned through exploring its relationships with other connected phenomena. Thus, the curriculum is more appropriately organized around broad themes or issues, through which the knowledge and skills of traditional subjects are taught in interconnected ways” (Pike & Selby, 1999x, p.20).

Kniep’s (1987) book, Next steps in global education: A handbook for curriculum development pointed out that “[…] the following tasks are absolutely essential to the process of taking the next steps in global education and toward true school improvement:

1) We must rethink and clearly articulate what we believe to be the mission of education in ad for our community in the context of the state, the nation, and the world; 2) We must set goals that will guide the development and implementation of specific programs within the curriculum; 3) We must set and follow criteria of significance for selecting the content of the school; 4) We must establish curricular and instructional priorities; 5) We must select and develop appropriate ways to organize the curriculum; 6) We must identify and provide appropriate instructional resources; 7) We must develop social structures within schools consistent with the goals of our programs; and 8) We must provide staff development for both curriculum development and implementation (pp.26-27).

From the previous statement, Kniep (1987) organized these eight tasks into different but continuing steps. The first step is the foundational steps that include the first three tasks—setting a mission, goals and criteria. The second step is to develop a master plan in which curricular and instructional priorities and organization are included. The
last step is building a support system. According to Kniep (1987), these numbers of steps “[…] are intended to provide both an entry point to the process and a means for realistically addressing the hard questions within such a process. […] they are designed to assist in conceptualizing educational programs that reflect the realities of today’s world, that anticipate the future in which our students will live, and that are derived from the demands of citizenship in the world of twenty-first century” (p.26). However, educators have to keep in mind that “The ultimate measure of success in developing global education programs will be the extent to which students experience a curriculum designed to equip them for citizenship in the twenty-first century” (Kniep, 1987, 173).

Tye (1999) stated, “Global education is described as imbedded in enlightenment ideas and as calling for the development of behaviors of self-awareness, self-transcendence, and rationality” (p.164). In examining the role that a school should play in implementing a global education, Tye (1999) argued that most educational decisions should be made in a single school because a single school is the place where planning, acting, and problem-solving all come together. In fact, Tye (1999) also pointed out that a single school is the place that “democratic ideals can be best implemented” (p.164). He added,

“There is a need for a variety of supportive structure, also, if such a scheme is to work: 1) Schools need to be networked with knowledge bases; 2) The role of the superordinate systems needs to be changed from directing to serving and facilitating; 3) The role of the principle needs to change from bureaucrat to that of site leader and organization development specialist aware of and able to work with processes such as communication, group problem solving, conflict resolution and evaluation; and 4) New forms of performance evaluation need to replace
the present, inhibiting national and regional assessment schemes” (Tye, 1999, pp.164-165).

In summary, there is more than one way to implement global education depending on the existing curriculum concerns and situations for each school. However, scholars do emphasize that the implementation of global education is not a short-term action but an ongoing process that requires consistent efforts and continuing supports.

2.2 Global Education in Taiwan

More and more countries are now implementing global education, and that Taiwan is one of them, hence the relevance of this particular section is that we now turn the focus to investigating global education in Taiwan. As stated by Suarez-Orozco (2005), “Globalization will affect schooling worldwide because of a general convergence: by de-territorializing the competencies and sensibilities that are awarded, it generates powerful centripetal forces on what students the world over need to learn to emerge as productive, engaged, and critical citizens of tomorrow” (p.210). Since Taiwan is no exception to globalization, policy makers and educators are advocating global education as part of the educational reform in Taiwan. According to Kao (2005),

“The implementation of global education in Taiwan is closely related to Taiwanese people’s daily lives. Following by the improvement of technology, the acquiring of knowledge is no world boundary. …Facing the tendency of globalization, education not only has to emphasize and respect multi-localism and be able to understand the differences of different countries with global perspective but also has to consider how to cultivate a global perspective that will lead people to a more peaceful, trustful, and dependent world” (p.116).
Closely related to the policies in implementing global education in Taiwan, Kao (2005) pointed out,

“[…] in 1993, there were plans and thinking of cultivating global perspectives of young learners for education in Taiwan. In 1996, “Educational Reform Committee, Executive Yang” recommended to internalizing the educational reform by “‘based on the local community, cultivated a world mind’ in order to build a modern society with global perspectives. In 1999, “Education Basic Law” article II pointed out the purpose of education is to cultivate a sound personality of the people, democratic knowledge, the rule of law, …to respect human rights and ecological environment protection, and to respect, understand, and care about different countries, ethnic groups, sexuality, religions, and cultures in order to prepare modern people of national and global mindedness. Moreover, one of the emphases for Grade 1-9 curriculum is to prepare students’ local and global mindedness in order for them to become life-long learners. Cultural learning and international understanding is required by the “ten core competences” of subject areas. In social studies specifically, global interconnectedness is one of the learning focuses which pointed out the importance of cultivating global perspectives” (p.117).

Evident in Kao’s statement above, the goals of global education are spreading in most parts of the educational goals and curriculum considerations in Taiwan even though such related policies did not specifically require that schools implement global education.

Furthermore, according to Chen and Perng (2007), “Taiwan is no exception of the tendency of including international issues in education. Cultivating global perspectives for students is the primary focus of educational policies issued by the Ministry of Education in 2004. “Grade 1-9 Curriculum” also includes global education and curriculum into its learning contents for elementary and secondary students” (p.5). Shan & Liu (2002) suggested that we should prepare teachers with knowledge, skills,
and attitude in order for them to better prepare their students in a globalized age. Shan & Liu (2002) stated,

“In order to catch up with the tendency of globalization and internationalization, teacher education programs have to emphasize not only on teachers’ expertise and content knowledge, attitude and skills but also on preparation of teachers’ global perspectives and international competence. For it is teachers’ responsibility to prepare students to understand the interdependence and competitiveness of the world and to help students to be able to adapt to the international society” (p.221).

Not only have policy makers initiated related policies for global education, but scholars in Taiwan have also advocated the importance of global education. Hong (2003) argued, “[…] the world is changing and the world development is speeding. Because of this reason, we have to modify our old knowledge about the world. … Teachers are only to be able to teach students the knowledge of right now but not the knowledge of forever. Students have to be able to understand the present world no matter what situations they will encounter” (p.7). Teachers who bear the responsibility in educating students of this interconnected and interdependent world also have to be well-prepared. As Kao (2005) pointed out that teachers are implementers of school curriculum. Furthermore, good curriculum cannot transform without teachers. Hence, “In order to deal with globalization, it is important that educational and curriculum reform that aim to cultivate primary and secondary students’ global perspectives. However, it is equally important that pre-service and practicing teachers be equipped with global knowledge, skills, and attitude” (Kao, 2005, p.117).

Scholars in Taiwan who discussed the purposes and presented their arguments on global education share very similar perspectives with Becker, Alger, Hanvey, and
Anderson. These scholars also believe that global education plays an important role in helping to cope with the growing globalized world. According to Kao (2005),

“Global education not only aims to increase students’ understanding of the multicultural and complex world, but also it aims to cultivate students’ global perspectives in order to prepare them to be able to stand and to develop in the globalized future. Furthermore, global mindedness students will be able to actively contribute, participate and build a more just and continuing world” (p.120).

The purpose of global education based on Hong’s (2003) statement is “to cultivate students with global perspectives and prepare students to be able to know, to understand, and to analysis the situations of the world from a global perspective. To prepare students to be willing to actively participate with things that will improve the human’s well-beings” (p.2). Yen (2005) stated, “The core of global education is to cultivate global awareness (Yen, 2005, p.58). To conclude the previous scholars’ arguments, therefore, knowledge, skills, attitudes and actions are the four dimensions that global education focuses on. In order to be a world mindedness person, scholars emphasized that she or he have to posses sufficient world knowledge and respect people from different cultures. Moreover, a world mindedness person is willing to work with others to improve the world peoples’ well-beings. (Hong, 2003)

Global education is not a new field of study in Taiwan. The following statement by Yen (2005) will help us gain a better understanding of related scholar’s work on global education from the 80s to the present. According to Yen (2005),

“The early stage of global education in Taiwan was the argument and emphasis of global education in social studies and multicultural concepts in educational sociology. Scholars at this stage suggested to include global education in social studies and later on pointed out simple concepts of global education. For instance, Tsai (1987) discussed the
rationales and implementation of global education in his paper. Lin (1989) mentioned the concepts of global education and argued how teacher education can do in order to advocate global education. Jian (1992) stated how to combine global education and children’s rights in order to open the new field for social studies. Huang (1994) pointed out the theory and practice of global education and infusing global education into every subject. Kuo et al. (1994) studied the implementation of global education in teacher education program in Taiwan. Wang (1999) also studied the theory and practice of global education and making suggestion in how to implement global education in elementary social studies. Kao & Tsai & Hsu (2002) discussed the implementation of global education in teacher education programs in Taiwan (p.70).

In summary, even though the requirement of implementing global education is not list directly listed in the policies issued by MOE, the purpose of education and the basic requirements for “Grade 1-9 Curriculum” of the curriculum reform are closely related to global education. Scholars’ research and advocate for, but more importantly remind us of the growing consensus of the importance of global education in Taiwan. In the next section, I will focus on the discussion of global education and teacher preparation.

2.3 Global education and Teacher Preparation

How do we prepare teachers to teach global education? Merryfield’s (1997) research paper pointed out four elements which she believed need to be explored and addressed by teacher educators as they prepare teachers to teach global education. These four elements include, “(1) conceptualizing global education; (2) acquiring global content; (3) experiencing cross-cultural learning; and (4) pedagogy for global perspective” (Merryfield, 1997, pp.3-12). Tye (1999) illustrated Merryfield’s guidelines by stating,
“[…] there should be (1) an thoughtful conceptualization of the program which includes consideration of its rationale, program goals, and a working definition; (2) a plan which allows for trainees to acquire knowledge of the world and its people; (3) a way for trainees to gain the necessary pedagogical skills to be global education teachers; and (4) opportunities for trainees to have cross cultural experiences wherein they will learn and practice skills of perspective taking, cross-cultural communication, collaboration, and conflict management” (p.279).

Begler (1993) discussed the importance of the “process-content relationship” in designing and conceptualizing global education programs (p.14). Begler’s (1993) argument for global teacher education programs to some degree is similar to that of Merryfield (1997) and Tye’s (1999). For instance, Begler (1993) believed in the importance of conceptualization of global education, its contents, and appropriate instructional processes in achieving the goals. One difference, however, is that Begler (1993) pointed out that teacher educators have to pay attention to the educational settings in the work place in order to provide effective assistance to teachers do their jobs best. When consider how to balance content, process, and context in global teacher education programs, Begler (1993) presented his arguments using three central points; 1) conceptualizing of global education and defining its content; 2) the selection of appropriate instructional processes to achieve the goals; and 3) providing training that will allow teachers to do the best job in the context they actually work. He then concluded,

“Having a clear conceptualization of global education is central to developing comprehensive and effective teacher education programs in the field. … By the same token, our programs must explicitly address the relationship between the content objectives of global education and the instructional processes necessary to achieve those objectives, particularly the perceptual objectives. … Finally, we must be realistic in our
expectations of teachers and provide them with tools appropriate to the task at hand” (Begler, 1993, p.19).

In “Teaching about international conflict and peace,” Merryfield and Remy (1995) discussed their assumptions about teaching and learning. These assumptions include, “(1) planning begins with knowledge of one’s students; (2) content is basic; (3) active, reflective learning is essential; (4) attention to values is necessary; (5) instruction must have variety; and (6) content, methods and educational goals are connected” (pp.7-9). Omoregie (2007) pointed out the importance of teachers’ content and pedagogical knowledge as well. According to Omoregie (2007), “The influence of a teacher’s content knowledge and professional preparation cannot be overemphasized. … The next crucial issue is pedagogical knowledge. Such a teacher is prepared professionally where he is exposed to acknowledge on child’s growth and development, curriculum development and how to tailor contents to students’ level, classroom management and students’ motivation” (p.4). Asides from the importance of having strong content and pedagogical knowledge, we have to keep in mind that teachers play critical roles in implementing global curriculum. As Becker (1982) argued,

“Those who are engaged in defining and in promoting goals and objectives consistent with their definitions of global education should keep in mind that the stated goals, as well as the content and processes advocated by global educators, publishers, or state offices of education, are in the final analysis mediated by the values and attitudes teachers hold. The teacher’s values alone with his or her knowledge of the subject area and of available materials and techniques largely shape the type of experiences students will have in the classroom” (Becker, 1982, p.229).
A brief summary can be outlined from the previous reviewed scholars’ work. The similarities among them are the importance of conceptualization of global education, teachers’ content and pedagogical knowledge. Furthermore, two more aspects should be taken into account as well. That is, the importance of reflective teaching, and teachers’ cross-cultural experiences.

2.3.1 The Importance of Conceptualizing Global Education

Viewing global education as a working definition will not only better fulfill different schools needs but will also help schools to set achievable goals based on their different socio-cultural contexts. As Begler (1993) argued, “[…] whether explicitly or unconsciously, our conceptualization of global education has a significant impact on how we construct out teacher education programs” (p.14). Caution should be taken, however, when trying to conceptualize the meaning of global education. According to Case (1993), “We should not automatically assume that greater clarity about the goals of global education is necessary. Loosely defined coalitions, whether of ideas or of individuals, often permit otherwise disparate factions to ally in pursuit of common, or at least compatible goals” (p.318). Moreover, evidence supported that global education has been to some degree adopted and implemented in different ways because of different socio-cultural backgrounds of its adopters. As aforementioned, Merryfield and Wilson (2005) admit that different states or districts adopt global education differently because of their different political, economic, social, and geographic issues. However, we are not arguing that people do not need to have a better conceptualization of global education. On the contrary, “Clearer articulation of
defensible core features of a global perspective, and their rationale, may help the global education movement avoid the pitfalls identified by its critics” (Case, 1993, p.319).

2.3.2 Teachers’ Content Knowledge

Teachers’ content knowledge cannot be overemphasized. Lo et. al (2006) found in their study on teachers’ instructional decisions and practices in Hong Kong’s global classroom that “[…] teachers’ knowledge and expertise do matter a lot in the infusion of global education into school curriculum” (p.291). However, they continued to point out that “Teachers often lacked the knowledge and skill required in connecting the global with the local and the lived experiences of the students… Teacher professional development in this aspect is urgently needed if the resources are to be effectively used to suit students’ interests and abilities” (Lo & Merryfield, & Po, 2006, p.294). Alfaro (2008) also emphasized the importance of teachers’ content knowledge. He wrote, “Global teachers need to develop the knowledge and skills of inter-cultural sensitivity for themselves and their students in order to adapt to changing conditions in our schools and classrooms” (p.22). Therefore, as Knipe (1986) indicated, “Unless we have developed substantive descriptions of the content of a global education, we will lack a full, helpful and convincing answer for the skeptics and uninitiated who ask: “What is global education?”…It is, after all, its content that distinguish global from other kinds of education” (p.437).

What content knowledge should be included in order to better prepare teachers to teach global education? “Massialas (1996) recommended the following criteria in
selecting global curriculum topics: relevance to the issue, content that triggers thinking, issues that encourage action, issues that can be practically studied, and issues that embed multiple perspectives. Theoretical literature can serve as a guide in making curricula decisions, but ultimately the power to decide rests in the hands of global educators in the field” (Cited from Gaudelli’s book, 2003, p.147). Furthermore, Kniep (1987) stated,

“To adequately address questions of content, we must consider them in the context of today’s local, national, and global realities. To be sure, today’s students need to be grounded, …, in their own history and culture. But we live in a world where people and nations are increasingly connected with one another economically, politically, technologically, and ecologically; therefore, today’s young people also need a sense of global history, an awareness of common human aspirations, and the will and abilities to tackle the great problems facing not only our own nation but the entire planet” (p.44).

In “An Attainable Global Perspective,” Hanvey (1976) provided five dimensions of a global perspective. These five dimensions include, “perspective consciousness, state of the planet awareness, cross-cultural awareness, knowledge of global dynamic, and awareness of human choices” (Hanvey, 1976, p.218). Perspective consciousness, Hanvey (1976) added, is “The recognition or awareness on the part of the individual that he or she has a view of the world that is not universally shared, that this view of the world has been and continues to be shaped by influences that often escape conscious detection, and that others have views of the world that are profoundly different from one’s own” (p.218). State of the planet awareness focuses on “awareness of prevailing world conditions and developments, including emergent conditions and trends, eg. population growth, migrations, economic conditions,
resources and physical environment, political developments, science and technology, law, health, inter-nation and intra-nation conflicts, etc.” (p.219). Cross-cultural awareness is “Awareness of the diversity of ideas and practices to be found in human societies around the world, of how such ideas and practices compare, and including some limited recognition of how the ideas and ways of one’s own society might be viewed from other vantage points” (p.221). Knowledge of global dynamics stresses “Some modest comprehension of key traits and mechanisms of the world system, with emphasis on theories and concepts that may increase intelligent consciousness of global change” (p.222). And finally, awareness of human choices is “Some awareness of the problems of choices confronting individuals, nations, and the human species as consciousness and knowledge of the global system expands” (p.223).

Kniep (1986), in “Defining a global education by its content” outlined “[…] four elements of study as being essential and basic to a global education: the study of human values, the study of global systems, the study of global problems and issues, and the study of the history of contacts and interdependence among peoples, cultures and nations” (p.437). Kniep (1986) argued, “The values that people hold reflect their attitudes and beliefs and are shaped by their experiences” (P.437). According to Kniep (1986), there are personal values such as tastes and preferences and universal values which “are shared so broadly, transcending our other identities, that they may be thought as universal and defining, in part what it means to be humans” (p.437). “In a global education, we are concerned primarily with the universal human values that transcend group identity and the diverse values that define group membership and
contribute to our unique perspectives and worldviews” (Kniep, 1986, p.437). Hence, studying global systems means understanding global economic, political, ecological, and technological systems which we lived in, the interdependence nature of our world, and to know their “components, possibilities for interaction, and rules for contact and influence” (Kniep, 1986, p.438). The argument that Kniep (1986) made in studying global issues and problems is, “If young people are to be well informed about their world, their education must engage them in inquiry about the causes, effects and potential solutions to the global issues of our time” (p.442). Kniep (1986) added, “A historical perspective, including a grasp of the evolution of universal and diverse human values, the historical development of our contemporary global systems, and the antecedent conditions and causes of today’s global issues and problems is fundamental to a global education” (p.444).

Case (1993) distinguished two interrelated dimensions for global perspectives—“substantive and perceptual dimensions” (Case, 1993). Substantive dimension “refers to the range of global topics about which people should be informed” (Case, 1993, p.320.) He outlined a list for substantive dimension which is a composite of both Hanvey (1976) and Kniep’s (1986) work. Case’s (1993) substantive dimension includes “1) universal and cultural values and practices; 2) global interconnections; 3) present worldwide concerns and conditions; 4) origins and past patterns of worldwide affairs; and 5) alternative future directions in worldwide affairs” (p.320). Perceptual dimension on the other hand contains with five interrelated elements. These five
elements included, “open-mindedness, anticipation of complexity, resistance to stereotyping, inclination to empathize, and no chauvinism” (Case, 1993, p.320).

In “A framework for teacher education in global perspectives,” Merryfield (1997) provided a list for the elements of a global education. These elements included, “(1) human beliefs and values; (2) global systems; (3) global issues and problems; (4) global history; (5) cross-cultural understanding/interaction; (6) awareness of human choices; (7) development of analytical and evaluation skills; and (8) strategies for participation and involvement” (Merryfield, 1997, pp.8-9). Furthermore, In “Social studies and the world: Teaching global perspectives,” Merryfield and Wilson (2005) identified elements that characterized global-oriented social studies today from related research studies. These elements contained, “(1) local/global connections; (2) perspective consciousness and multiple perspectives; (3) the world as a system; (4) global issues; (5) power in a global context; (6) non-state actors; (7) attention to prejudice reduction; (8) cross-cultural competence; (9) research and thinking skills; (10) participation in local and global communities; and (11) use of electronic technologies” (pp.18-19).

Pike and Selby’s (1999x) four-dimensional model included “(1) spatial dimension; (2) issue dimension; (3) temporal dimension; and (4) inner dimension” (p.12). According to Pike and Selby (1999x), “The spatial dimension addresses the central concept of interdependence” (p.12). Issue dimension consists of three principles. These three principles included, “Firstly, any curriculum relevant to students’ needs should address the many issues, at all levels from local to global that
are pertinent to their lives. …Secondly, the issues themselves should be viewed as interconnected. …Thirdly, students should be helped to understand that their perspective on any issue is but one among many” (p.13). “Integral to the temporal dimension is the notion that phase of time is interactive” (Pike & Selby, 1999x, p.13). The inner dimension is the core of the four-dimensional model. According to Pike & Selby (1999x), “Global education, …, is a voyage along two complementary pathways. While the journey outwards leads students to discover the world in which they live, the journey inwards heightens their understanding of themselves and of their potential” (p.14).

Osler and Vincent (2002) suggested a useful way for teachers to identify and organize the subject matter of global education by adopting Richardson’s (1979) model which included challenges, background, actions, and values four elements. Related questions for these four elements proposed by Osler & Vincent (2002) included, “(1) what challenges face the global community? (2) what is the background to these issues and problems? (3) what action might be taken and what action is being taken? (4) what sort of a world do we want to move towards and what values are important” (pp.23-24)?

After reviewing the previous literatures of what content knowledge should be included in global education, awareness should be pointed out as suggested by Johnson (1993),

“Whatever the students’ own preferences, we must help them to empathize with a variety of models and ideologies, not because they may want to convert to them but because a person trained in global education must thoroughly understand the analytical perspective of the major
thinkers in the world who have and continue to shape the great variety of human consciousness that compose the tapestry of the world’s people. A future goal should be to help students see that their particular world-view and their special way of teaching about the world rests not on a chosen expression of universal truth but rather on a historically and culturally inspired set of assumptions that, in the context of the larger world, is but one approach among many others” (p.11).

2.3.3 Teachers’ Pedagogical Knowledge

Pedagogy for a global perspective according to Merryfield (1997) “is the practice of teaching and learning globally oriented content in ways that support diversity and social justice in an interconnected world. Reflection on content, on methods, and on the evolution of the controversial nature of global education are all part of the process of teacher education in global perspective” (p.12). Tuomi (2004) wrote, “Students teachers should learn that there are many ways to teach, since individual children are different not only in their learning styles and interests, but also in their learning abilities” (p.300). She continued to argue,

“[…] to increase the knowledge about the world in general, the ability to tailor the curriculum to the students’ needs, and the skills for working with parents. These are essential competencies for teachers, and they benefit all children. Learning to discuss and collaborate with parents from other cultures enhances teachers’ abilities to work with all parents and children” (Tuomi, 2004, p.298).

Gaudelli (2003) also stated,

“A teacher needs to guide students based on their experiences toward new experiences, helping them to inquire about their world in meaningful ways. Teaching in this manner models thoughtful inquiry, where doubt and confusion are often present, skepticism is healthy and necessary, evidence is gathered and examined, and conclusions are tentative and open to public scrutiny” (p.153).
There are different methodologies for global education. Tye (1999) concluded his data and summarized that there are “traditional” and “progressive” methods involved in global education. Traditional methods include “teacher lecture, assigning reading in textbooks, giving questions to answer, using films, videos, transparencies, giving test … camping, using biographies, debates, field trips, laboratory work, and current events” (p.93). The progressive methods include, “active learning, discovery, inquiry role play and simulation, cooperative learning, United Nations clubs of various kinds, the use of technology, and various kinds of performance evaluation” (p.93).

Similar teaching methods are listed in the report of “Education for Global Citizenship” (2006). “Education for global citizenship uses a multitude of participatory teaching and learning methodologies, including discussion and debate, role-play, tanking exercises, and communities of inquiry” (Oxfam GB, 2006, p.3).

### 2.3.4 Reflective Teaching

Merryfiled (1993) emphasized the importance of reflective practice for teachers. According to Merryfield (1993), “In order to prepare teachers for the diffuse, complex, and controversial nature of global education, teacher educators need to plan reflective exercises as part of their instruction” (Merryfield, 1993, p.31). By reflective exercise, teachers will have better understanding of their own world views, and the practice can help them to find ways to connect to their students. As Gaudelli (2003) pointed out, “Understanding the manner in which teachers have come to know their world in their own lives is critical as it gives them a way of relating to their students, particularly in the United States, where the overwhelming majority of citizens do not
have a passport and lack international experiences” (Gaudelli, 2003, p.150). Alfaro (2008) also argued, “The need to provide opportunities for reflective practice, beyond the normal focus on theory and practice relating to international global student teaching, gives both the pre-service teachers and faculty an opportunity to analyze and promote a deeper understanding of international education experiences” (p.25).

For reflection to be relevant, teachers need to know the strategies involved in practicing reflective teaching. Merryfield (1993) described these reflective strategies in her work. The first strategy is “tree of life” (Merryfield, 1993, p.28). By using this strategy of tree of life, teachers can “think back over their lives and identify those underlying values, beliefs, and experiences that have shaped their views of other people and the world” (Merryfield, 1993, p.28). The second strategy is “reflections on class sessions” (Merryfield, 1993, p.30). According to Merryfield (1993), teachers can reflect their own learning or “possible application in their professional or personal lives. They may critique both the process and content of class sessions and share what motivates, irritates, disturbs, excites, or confuses them” (p.30). The third strategy is “infusion experiments” that “helps the teachers understand global education is their experimenting with actual infusion of global perspective” (Merryfield, 1993, p.30). As Merryfield (1993) pointed out, “The reflections on their (teachers’) actual teaching of global education are often turning points in the courses as teachers face the demands and constraints of mandated curricula and deal with the attitudes, abilities, and experiences of their students” (p.31). Therefore, “In order to prepare teachers for
diffuse, complex, and controversial nature of global education, teachers educators need to plan reflective exercises as part of their instruction” (Merryfield, 1993, p.31).

2.3.5 Teachers’ Cross-Cultural Experiences

Why do scholars in the field of global education recommended cross-cultural experiences? As Merryfield and Wilson (2005) pointed out, “Experiences with people different from ourselves can have a powerful impact on our worldmindedness” (p.29). That is, “[…] they can learn and change, and people with such experiences can make important contributions to teaching and learning from a global perspective” (Merryfield & Wilson, 2005, p.29). Wilson (1982) argued, “Whatever they teach, teachers should be educated in a way calculated to raise their level of their awareness of what is happening to mankind in the world’s contemporary circumstance. This means that those who are becoming teachers should have a change to cross over, through their studies and their personal experience, to a culture different from the one in which they have been born and raised” (p.184).

Merryfield and Wilson (2005) examined the impact of cross-cultural experiences. They pointed out five dimensions of these impacts which include, “substantive knowledge, perceptual understanding, personal growth, interpersonal connections, and cultural mediation” (p.29). As Young (2007) stated,

“In discussions about teacher preparation, participants made many suggestions for improvement, among them, having pre-service teachers get out of the classroom to experience different perspectives, acquire a second language as a way to learn the different perspectives and nuances of a culture, and take part in intercontinental action research projects. Faculty members and future teachers should also spend extended periods of time in other countries or cultures in order to experience cross cultural interactions” (p.353).
In conclusion, however, “Schools and colleges around the world are not adequately preparing their students and other citizens to understand the nature of shared planetary challenges like international terrorism, regional and global conflicts, and global warming” (Reimers, 2009, p.A29). As indicated above, global education plays a critical role in preparing students to adjust to the impacts of globalization and teacher education because teaching global education is a key to achieving this goal. Based on this statement, then, the question becomes, “how do teacher education programs teach students global education?” Axworthy (2007) spoke out in Young’s report, “If we are going to do it, we have to begin looking at the way we teach teachers” (Cited from Young’s report, 2007, p.353). Steward (2007) expressed a similar concern and said, “I would say the lack of preparation of teachers, the lack of language teachers, is sort of a major barrier to making this real in more places” (Steward, 2007; Cited from Young’s report, p.363). Moreover, early in 1990, Merryfield (1990) pointed out in her study, “Despite all this activity at the state and national levels, the movement for global perspectives in education is severely hindered by lack of teacher knowledge of the world. Inadequate teacher preparation in global perspective was … a major obstacle to the U.S. ability to meet the economic, political, and social challenges of the twenty-first century” (p.77).

Therefore, as Remy (1982) argued,

“Teachers teach what they know most about. Regardless of how critical is the understanding of interdependence and cultural diversity in the development of competent and active citizens, teachers will avoid these issues if they do not have materials and appropriate background training. It is clear that there needs to be a great deal of improvement in both pre-
service and inservice training programs for teachers planning to teach international or comparative studies” (Remy, 1982, p.210).

We have to keep in mind that, as Merryfield (1990) wrote, “Teacher educators have a critical responsibility to prepare teachers to teach with global perspectives” (p.88).

Guilliom (1993) provided a similar argument by saying “The success of efforts to bring a global perspective to undergraduate teacher education is largely dependent on the commitment of faculty members to the cause” (p.45).

2.4 Teacher Education in Taiwan

In Taiwan, before 1994, normal universities and teacher colleges were the major institutions that provided teacher education programs for pre-service teachers. Specifically, normal universities trained secondary pre-service teachers and teacher colleges focused mainly on training pre-service teachers to teach at the primary levels. A brief summary of the characteristics of teacher education in Taiwan during this period included: 1) the pre-service teachers’ preparation was single-channeled, 2) tuition for all pre-service teachers who were enrolled either in normal universities or teacher colleges were paid by the government, and 3) all pre-service teachers who graduated from both normal universities and teacher colleges and completed one year student teachers’ training were guaranteed a teaching job. However, The Ministry of Education (MOE) announced the “Teacher Education Law” in 1993 “due to the societal changes and the debates of allowing other universities to join the force of teacher preparation in order to open more channels for teacher education and to

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6 There were nine Teacher Colleges. Three Teacher Colleges were promoted and changed into comprehensive universities and the other six are now Educational Universities.
increase the competitiveness and quality for teacher education programs via the free competitive market mechanisms” (Lin et al., 2007, p. 64).

The “Teacher Education Law” was passed by the legislation in 1994. The major change that resulted from the “Teacher Education Law” was that universities were now permitted to provide pre-service teacher training. Teacher education then changed from being single-channeled to multi-channeled in Taiwan. According to the “Teacher Education Law,” not only were normal universities and teacher colleges allowed to provide pre-service teacher training, but all universities in Taiwan were eligible to apply for setting up teacher education programs and participate in training primary and secondary teachers. In terms of secondary teacher education, normal universities, universities with departments of teacher education, and universities with teacher education centers were permitted to provide training for secondary pre-service teachers.

Furthermore, tuition fees were only waved for students who were either enrolled in special needs subjects (some courses have low pre-service teacher enrollment) or for students who were willing to teach in distanced schools after they finish their pre-service teacher training and become certified teachers. Otherwise, most of the students who choose to enroll in the teacher education programs had to pay their tuition (Wu, 2002; Wu, 2002; Cited from Zhou’s paper, 2009).

In 1994, the “Teacher Education Law” also required pre-service teachers to take the certification examination given by the government in order to become certified teachers. This was also another change in teacher education from the previous
period. Before the 1994 “Teacher Education Law,” pre-service teachers became certified teachers after they successfully completed both their coursework at schools and the one-year pre-service teacher internship assigned in primary and secondary schools.

Not having guaranteed teaching jobs for pre-service teachers after completing their coursework and internship was the next major change that resulted from the issuance of the “Teacher Education Law” in 1994. Before 1994, the central government planned and controlled teacher education as well as the total amount of teacher demand and supply in Taiwan. After 1994 and due to the issuance of the “Teacher Education Law,” teaching jobs were not guaranteed for every pre-service teacher after they completed their teacher education training in schools. Based on the theory of the market competition mechanism, the idea for this change was to achieve the goal of “more supply than the demand” for the total number of teachers in order to employ better-qualified teachers.

Instead of training primary and secondary teachers separately or in different universities, universities with teacher education programs were permitted to provide trainings for both primary and secondary pre-service teachers. Furthermore, pre-service teachers who were enrolled in teacher education programs were allowed to take courses for in both primary and secondary teacher preparation programs at the same time. Pre-service teachers were then able to obtain their license as primary and secondary teachers if they successfully finished a 50-hour course credit requirements
implemented by the MOE, completed the 12-months internship and passed the teacher certification exam.

The “Teacher Education Law” was revised in 2002. The revisions included: 1) every university that provided teacher education programs had to set up a teacher education center, 2) a change from the previous internship courses from one-year added on to the regular pre-service teachers’ preparation courses to a six-month internship included in the pr-service teachers regular courses, the internship stipend was cancelled, and the student interns now had to pay fees for these four credit-hour intern classes, and 3) all pre-service teachers had to take examination given by the government after completing all pre-service teachers courses work in order to become certified teachers (Chou, 2009).

In terms of global education, scholars are putting their efforts in bringing it into teacher education programs in Taiwan. According to Shan & Liu (2002), “In the new wave of educational reform in Taiwan, it brings new perspectives for teacher education programs. However, it is critical for teacher education programs to consider how to improve and to make progress of teacher education programs in Taiwan in order to catch up the globalization” (Shan & Liu, 2002, p.225). Moreover, Kao (2005) suggested, “As current education reform focusing on cultivating primary and secondary students’ global perspectives, it is essential to increase global perspectives for pre-service teachers, in-training teachers, and practicing teachers” (Kao, 2005, p.118).
Teacher educators have voiced out the need to improve teacher education programs in Taiwan because “Teachers are the main source of possessing knowledge and influencing students’ learning. It is only possible for students to learn global perspectives with teachers who are possessing global knowledge. However, the institutions of teacher education programs in Taiwan right now put most of their efforts and focus on professional knowledge and skills for pre-service teachers. Global issues are seldom focused by curricula of teacher education programs” (Kao, 2005, p.144). Besides, “Students will learn global perspectives if teachers are capable of teaching with global perspectives” (Hong, n.d., p.33).

Suggestions and recommendations have also been provided by research studies that related to global education. As Hong (2003) pointed out, “In order to cultivate students with global perspectives, the first thing that social studies teachers have to do is to reexamine their old teaching beliefs” (p.6). Furthermore, in the efforts to improve the globalized teacher education programs in Taiwan, Kao (2002, 2005) suggested, “arranging cross-cultural training and exchanging programs from other countries for pre-service teachers, offering multicultural related courses, increasing research for foreign countries, improving educational partnerships, and using information and technology. We hope that in the near future, people who work for education will actively and systematically collect data and point of views from teacher educators in Taiwan and global educators from other countries in order to find a general consensus and to try to compare the differences of teacher education programs in Taiwan and teacher preparation programs in other countries in order to find feasible ways to globalized teacher education programs in Taiwan” (p.144).

“However, research and discussions that related to global education in teacher education in Taiwan are limited not to mention to implement related curricula and
pedagogy” (Kao, 2005, p.118). Therefore, in order to shed a light for future research and implementation of global education in Taiwan, it is now the right time to study the implementation of global education in secondary social studies teacher preparation.
Chapter 3
Methodology

The objective of this study was to answer the research question of how well pre-service secondary social studies teachers are prepared to teach global education: pre-service social studies teachers and faculty’s perspectives of the implementation of global education in teacher education programs in Taiwan.

This chapter discusses the research design, participants and sampling, instrumentation including validity and reliability, data collection and timeline for the study, and data analysis.

3.1 Research Design

In order to answer the research question, this study used a mixed methods research. Mixed methods research “is an approach to inquiry that combines or associates both qualitative and quantitative forms. It involves philosophical assumptions, the use of qualitative and quantitative approaches, and the mixing of both approaches in the study” (Creswell & Plano Clark, 2007; Creswell, 2009, p.4). This research design allowed the researcher to survey a significant group of participants to collect the desired data to answer the research questions proposed in this study.
A concurrent embedded strategy was used in this study so that the researcher “can gain broader perspectives as a result of using the different methods as opposed to using the predominant method alone” (Creswell, 2009, p.215). Furthermore, a concurrent embedded strategy enables a researcher “to collect the two types of data simultaneously, during a single data collection phase” (Creswell, 2009, p.215). This strategy can help a researcher to “gain perspectives from the different types of data” as the researcher intended to do in this study in order to enrich the research findings.

This study incorporated both a survey questionnaire, intended to collect both quantitative and qualitative data, and a document analysis to strengthen the research findings. The primary method for data collection was the survey questionnaire. The design of this survey questionnaire aimed to answer the major question of how well are secondary social studies teachers are prepared to teach global education and to answer three sub-questions related to the primary research question. These three questions include: 1) how well secondary social studies pre-service teachers are prepared to teach global education with a focus on the perspectives of secondary social studies pre-service teachers and university faculty and leaders; 2) what needs in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers and university faculty and leaders identify; 3) what barriers (or potential barriers) in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers and university faculty and leaders identify?
Document analysis, on the other hand, was used to collect related data for the two other sub-questions related to the major research question. Both quantitative and qualitative data will be mixed in the following chapter that will present the research findings. Survey data will be analyzed quantitatively using SPSS software. Qualitative data from the survey research on the other hand, will be coded and analyzed qualitatively and be compared and combined with quantitative data when analyzing the results.

3.2 Participants

The current study included two groups of participants. The primary focus participants in this study were undergraduate, master and doctoral students who are currently enrolled in the teacher education programs in Taiwan. The second group of people is faculty members who were teaching courses in preparing pre-service secondary social studies teachers in teacher education programs. These two groups of target populations are affiliated with different universities.

In order to control the frame error and to get the actual number of universities that had teacher education programs and prepared pre-service secondary social studies teachers, the researcher obtained a list of universities from the MOE Department of Secondary Education in 2009. This was the most recent list issued from the MOE Department of Secondary Education before the researcher began to distribute and collect the survey questionnaire in June 2009.

Based on the list, there are three different kinds of universities that provide teacher education programs for pre-service teachers. These three sets of universities
include 1) normal/education universities\textsuperscript{7}, 2) universities with departments of teacher education, and 3) universities with teacher education centers.

Normal/educational universities: Currently, there are three normal universities and five education universities in Taiwan. Normal universities are in charge of secondary and special education pre-service teacher preparation. However, during the research, only two normal universities provided teacher education programs for secondary social studies pre-service teachers. The other normal university stopped providing teacher education program for secondary social studies from 2006. Education universities, on the other hand, focus on the primary and pre-primary pre-service teacher preparation.

Universities with departments of teacher education: There were 10 universities with departments of teacher education that had teacher education programs for pre-service teachers. Only seven out of 10 schools provided teacher education programs for secondary pre-service teachers. Specifically, only two out of these seven schools provided teacher education programs for secondary pre-service social studies teachers in 2009.

Universities with teacher education centers: There were a total of 36 universities with teacher education centers in Taiwan in 2009. Thirty-one out of the 36 schools provided teacher education programs for secondary pre-service teachers. Only

\textsuperscript{7} Before the 1994 issuance of the Teacher Education Law, only normal/education universities provide teacher education programs. However, after the issuance of the Teacher Education Law (Act), normal/education universities are still the major schools for teacher education in Taiwan.
13 out of the 31 universities had teacher education programs for secondary social studies teachers.

<table>
<thead>
<tr>
<th>Types of Schools</th>
<th>Normal Universities</th>
<th>University with Departments of Teacher Education</th>
<th>University with Teacher Education Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2</td>
<td>2</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 3.1: Number of Universities that Provided Teacher Education Programs for Pre-service Social Studies Teachers (n=17)

In 2009, there was a total of 17 universities that provided teacher education programs for secondary social studies pre-service teachers in Taiwan. However, not every student who was enrolled in these 17 universities was eligible for admission into the teacher education programs these schools provided. Basically, students’ Grade Point Average (GPA) was the primary criterion for admission to the teacher education programs. Aside from GPA, students’ admission to the programs depended on their behavior grades. There were requirements for the behavior grades. Students were then required to take exams, a similar criterion required by the seventeen schools. Normally, the duration for completion of coursework in the teacher education programs is two years, with exceptions that pre-service teachers can extend the two-year duration.

Before the pilot study, the researcher planned to conduct a survey research for all students who were enrolled in the teacher education programs in the second
semester of 2008. However, the results from the pilot study informed the researcher that the first year of pre-service teacher did not have sufficient knowledge in responding to all the pilot study survey questions. The second year pre-service teachers on the other hand, had taken more courses that enhanced their experiences and knowledge about the teacher education programs they attended that would help them to answer the survey questions. Therefore, the researcher decided to choose the second year secondary social studies pre-service teachers to be the research participants. That is, students who were enrolled in teacher education program as second year students and were planning to become future secondary social studies teachers became the participants for this study. These participants will be juniors and seniors with related majors.

The second population was the faculty members who were involved in pre-service secondary social studies teacher preparation. Faculty’s perspectives are critical in order to get more insights and data for the research questions in this study of how well are pre-service secondary social studies teachers prepared to teach global education: pre-service social studies teachers and faculty’s perspectives of the implementation of global education in teacher education programs in Taiwan. Furthermore, faculty members who were teaching the required courses for pre-service secondary social studies teachers had expertise and sufficient knowledge to provide data to answer the research questions this study intended to explore. Faculty members had more knowledge about course offerings in their programs compared to the pre-service teacher participants who had some but limited courses taking experiences and
knowledge about social studies courses available in teacher education programs. Both groups of the participants would provide data in course taking and implementation that allow the research to see different perspectives.

3.3 Sampling

A census sampling strategy was implemented in the study. “A census means gathering information about every individual in a population” (Fowler, 2009, p.4). This sampling strategy was chosen because of the fact that the Ministry of Education in Taiwan did not have data for the total number of students enrolled in all the teacher education programs for pre-service secondary social studies teacher training. Sampling error was controlled because every population had an equal chance to participate in this study.

The yearly university evaluation for teacher education programs might be the major reason why the MOE did not have the document indicating the total number of the pre-service social studies teachers who were enrolled in teacher education programs in 2009. According to MOE Department of Secondary Education, the yearly evaluation of teacher education programs included: 1) normal/education universities and universities with departments of teacher education, and 2) universities with teacher education centers. The formal universities did not have to be evaluated yearly and evaluations depended on the actual needs of these schools: MOE Department of Education planned and evaluated these schools if they requested.

Criteria for yearly evaluation for university with teacher education centers include: 1) the development of teacher education program is new or has been in
existence for a year, 2) the evaluation result of the teacher education program is not First Class\textsuperscript{8} (Less than 85 points) from the previous year, 3) the teacher education programs have not been evaluated for more than four consecutive years, 4) the MOE teacher education program evaluation committee has examined and approved schools that should be evaluated, and 5) universities that send application for self-evaluation. MOE has the right to ask schools to reduce the amount of student enrollment, require schools to improve based on certain improvement criteria, and even close some teacher education programs based on the evaluation results.

A total of 295 surveys were collected from pre-service secondary social studies teachers. Twenty out of the 295 student surveys were collected from the pilot study. A total of 12 faculty surveys were collected. Only one out of 12 was collected from the pilot study. Data collected from the pilot study will be used to test the reliability and the clarity of the survey questions. The 275 pre-service teachers’ surveys and 11 faculty surveys data collected after the pilot study will be used to answer the research questions proposed in this study.

\textsuperscript{8} The results for the teacher education program evaluation are based on a 100 point scale. Three classes are rated to 100 point scale: First, Second, and Third Classes. The First Class: 85 points and higher. The Second Class: 75-84 points. The Third Class: Less than 75 points.
<table>
<thead>
<tr>
<th>Pre-service Teacher Participants</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Students</td>
<td>235</td>
</tr>
<tr>
<td>Master Students</td>
<td>25</td>
</tr>
<tr>
<td>Doctoral Students</td>
<td>1</td>
</tr>
<tr>
<td>Student interns</td>
<td>13</td>
</tr>
<tr>
<td>Certified Teachers</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>275</td>
</tr>
</tbody>
</table>

| Faculty Participants            | 11                     |

Table 3.2: Total Number of Pre-service Teacher and Faculty Participants

The 275 post pilot study pre-service teachers’ surveys were collected from 11 universities out of all the 17 universities that provided teacher education programs for pre-service secondary social studies teachers in 2008-2009 school year. Details for these 11 universities included: 1) two out of two normal universities, 2) two out of two universities with departments of education, and 3) seven out of 13 universities with teacher education centers. A total of 11 faculty surveys were collected from nine different schools. Three faculty surveys came from two normal universities and eight other faculty surveys came from seven other universities with teacher education centers.
Table 3.3: Number of Participating Schools

<table>
<thead>
<tr>
<th></th>
<th>Normal/Educational Universities</th>
<th>Universities with Departments of Teacher Education</th>
<th>Universities with Teacher Education Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Participating Schools for Pre-service teacher participants</td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Number of Participating Schools for Faculty Participants</td>
<td>2</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Total:</td>
<td>11</td>
<td>Total: 9</td>
<td>7</td>
</tr>
</tbody>
</table>

In regards to the non-participating schools, two universities with teacher education centers reported a total of three students enrolled in pre-service secondary social studies teacher programs. One school reported there were less than five students enrolled, and therefore, did not want to participate in the survey research. One school provided a list with a total of six pre-service social studies teacher email accounts. E-version of surveys and reminders were sent out. However, no survey was collected from this attempt.

The total number of the aforementioned pre-service social studies teachers enrolled in these four non-participating schools was less than 17 which contained only 0.06% of the total pre-service teacher participants. On the other hand, the percentage of these four non-participating schools stand for 23.5% of the total participating schools. Therefore, the actual sample size in these non-participating schools was much smaller compared to the sample size in the participating schools.
A review of the course offered in the non-participating schools was then applied to check whether there were major differences of course requirements for pre-service secondary social studies teachers. Generally speaking, the required courses and credit hours for the non-participating schools were very similar to those participating schools. The list of the course requirements was adopted from MOE. A total number of 26 credit hour requirements including 14 credit hours for the required courses of education foundation courses, education methodology courses and teaching practicum courses and 12 credit hours for the elective courses.

3.4 Instrumentation

Surveys and document analysis were employed in this study. The survey instrument was designed to assess pre-service social studies teachers’ preparedness in teaching global education. The researcher collected perspectives from both pre-service social studies teachers and faculty who were in-charge of teaching subject/ specified learning area teaching practicum or teaching practicum of subject/ specified learning area in teacher education programs in Taiwan. Therefore, two sets of different questionnaires were designed.

The survey questionnaire for pre-service secondary social studies teacher survey questionnaires intended to collect both quantitative and qualitative data to

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9 Subject/ specified learning area teaching practicum and teaching practicum of subject/ specified learning area are two of the required courses for pre-service social studies teachers.

10 Subject/ specified learning area teaching practicum in pre-service social studies teaching preparedness include courses of 1) Teaching practicum of history, 2) Teaching practicum of geography, and 3) Teaching practicum of civic education. Subject/ specified learning area of teaching materials and method include courses of 1) History teaching materials and methods, 2) Geography teaching materials and methods, and 3) Civic education teaching materials and methods.
assess 1) students’ attitude toward global education, 2) students’ course taking experiences, 3) students’ own evaluation of their own teacher education programs, and 4) students’ own suggestions for the implementation of global education in teacher education programs in Taiwan.

There were three sections in the pre-service teachers’ survey questionnaire. The first section were designed to collect quantitative data to measure students’ attitude toward global education, the frequencies of teaching and learning social studies standards in pre-service social studies teachers training courses, and the pre-service secondary social studies teachers’ self-evaluation of teacher education programs they were enrolled in. The second section surveyed the course taking experiences, the available courses provided by teacher education programs and suggestions related to global education in improving teacher education programs in Taiwan. The third section consisted of demographic data for the pre-service teacher participants.

The survey for faculty members was slightly different. Very similar to the students’ survey, the faculty survey questionnaire also consisted of three sections inquiring about 1) attitude toward global education and the frequency of teaching social studies benchmarks and self-evaluation of teacher education programs, 2) suggestions for the implementation of global education in teacher education programs in Taiwan. Moreover, faculty participants provided course offering information about the teacher education programs they teach in. The major portion of the faculty survey consisted of open-ended questions that asked faculty participants to provide answers.
based on their knowledge about the educational policies issued by the MOE and on
their teaching experience in teacher education programs.

In essence, the survey questionnaires were designed to answer the major
research question “How well are secondary social studies teachers prepared to teach
global education?” and the following research sub-questions.

1a) How well do secondary social studies pre-service teachers think they are prepared
to teach global education?

1b) How well do university faculty in Taiwan think secondary social studies pre-
service teachers are prepared to teach global education?

2a) What needs in the training of secondary social studies teachers to teach global
education in teacher education programs in Taiwan do secondary social studies pre-
service teachers identify?

2b) What needs in training of secondary social studies teachers to teach global
education in teacher education programs in Taiwan do university faculty identify?

3a) What barriers (or potential barriers) in the training of secondary social studies
teachers to teach global education in teacher education programs in Taiwan do
secondary social studies pre-service teachers identify?

3b) What barriers (or potential barriers) in the training of secondary social studies
teachers to teach global education in teacher education programs in Taiwan do
university faculty identify?

It should be noted that both the student and faculty questionnaires included a
definition of global education (see the Appendices). This was a conscious choice that
involved a trade-off. On one hand, it would have been instructive to withhold a definition in a survey and instead gather and analyze the definitions of global education of those surveyed. Such an analysis might have been strong evidence of the effect of the teacher education programs. For example, if student in general had no clear conceptualization of global education, that could indicate that the teacher education program was not very effective no matter the purported content. On the other hand, the absence of a common definition would have rendered much in the questionnaires useless. Answers about the courses containing global education content, for example, could be based on widely differing conceptualizations. In the end, the researcher decided opted for the consistency provided by a common definition.

Document analysis was applied to answer the following research questions.

4) What formal preparation in content areas related to global education is in the curriculum for secondary social studies pre-service teachers in teacher education programs in Taiwan?

5) What differences do the findings of the four previous research questions and the literature in global education identifies in order to prepare pre-service teachers to teach global education?

However, there were overlapping data from both survey and document analysis that will be used to answer research questions 1)-4).

3.5 Validity

“Historically, validity was defined as the extent to which an instrument measured what is claimed to measure” (Ary & Jacobs & Razavieh, 2002, p. 242). In
order to improve the validity of the survey instrument used in the current study, related research and studies were reviewed in education, global education and multicultural education, pre-service teachers preparation, educational policies and administration, psychology, research design and measurements to build on theory for the planned survey instrument.

The preliminary survey questionnaire was reviewed by a panel of experts to determine if the survey questions were relevant and appropriate for the target participants and to ensure the content validity of the survey instrument. This panel of experts included one social studies professional from the United States, one teacher educator who is now teaching in one of the teacher education programs for pre-service social studies teachers preparation in Taiwan, one teacher educator in the field of English and children’s literature who is now teaching in Taiwan, two researchers with doctoral degrees in the fields of education and agricultural, environmental and development economics and in quantitative research.

After being verified by experts in relevant fields, the survey questionnaire was then pilot tested. A pilot study helps “the researcher to decide whether the study is feasible and whether it is worthwhile to continue. It provides an opportunity to assess the appropriateness and practicality of the research methodology” (Ary & Jacobs & Razavieh, 2000, p.111). In the pilot study of the survey questionnaire, the researcher sought to find out if the words were clearly stated and understood, if the questions were easy to answer and if they implied different meanings to different people, if the response categories for the demographic data were appropriate and adequate, if the
timing estimate was accurate and acceptable and if the overall reaction to the survey questionnaire was favorable. In order to protect all participants, however, no personal information was solicited in the survey. As argued by Ary & Jacobs & Razavieh (2000), a pilot study “gives some indication of its tenability and suggests whether further refinement is needed” (p.111).

The pilot participants of this study were 20 pre-service secondary social studies teachers and one faculty in teacher education programs in Taiwan. The survey questionnaires were distributed via email. Permission was gained after contacting the students’ instructors via phone conversation. Information about students’ email accounts were received via email and obtained from the list posted on the teaching and learning related websites. The pre-service social studies teachers pointed out the unfavorable arrangement of questions and difficulties in answering specific items. Feedback to improve the survey questionnaire was collected which included making the questions shorter and easier to read, making changes in the categories in the demographic data questions, and rearranging some items based on the relationships of items themselves, and grouping quantitative questions and all open-ended questions together.

It is worth noting that an unexpected result was obtained from the pilot study that affected the sampling strategy later. Some of the pre-service social studies teachers who participated in the pilot study revealed that they did not have much experience with taking courses and lack of knowledge about some of the survey
questions since they were just first year\textsuperscript{11} students in teacher education programs.

Before the pilot study, the researcher intended to include all first and second year pre-service social studies teachers enrolled in teacher education programs in Taiwan to participate in the survey questionnaire. After the pilot study, the researcher changed the research focus of the study based on the data collected from the pilot study. The study now mainly sampled the participants who had at least one year of courses and had more experiences in teacher education programs. It was not an unattainable goal to sample only the second year students enrolled in teacher education programs in Taiwan. The lists of course requirement issued from different universities clearly stated specific courses that were only offered to second year students enrolled in teacher education programs. Therefore, the researcher was able to reach these students by focusing on these specific courses and gained permission from universities and courses instructors to solicit their participation in the study.

3.6 Reliability

“Reliability is concerned with the extent to which the measure would yield consistent results each time it is used” (Ary & Jacobs & Razavieh, 2002, p. 227).

Cronbach’s coefficient alpha is the widely used statistic to test the internal consistency (Ary & Jacobs & Razavieh, 2002; Gliem & Gliem, 2003). The maximum value for Cronbach’s alpha is 1.0 and “the closer Cronbach’s alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale” (Gliem & Gliem, 2003, p.87).

\textsuperscript{11} According to the “Teacher Education Law”, the time duration in order to finish courses works for pre-service teachers’ preparation is at least one year plus six months of student internship training. Therefore, normally students who are enrolled in teacher education programs in Taiwan will need around two years to finish their preparedness training in teacher education programs. Extensions may be granted based on the situations.
Specifically, based on George and Mallery’s (2003) rules of thumb for Cronbach’s alpha, a Cronbach’s alpha of .70 or above is considered acceptable; .80 and above is good; and .90 is excellent. (Cited from Gliem & Gliem, 2003, p.87). However, an alpha of .80 is considered a reasonable goal (Gliem & Gliem, 2003).

Cronbach’s alpha was calculated to test the reliability of the survey data completed by the twenty pre-service teacher participants after the pilot study. In section one of the survey, there was a total of thirteen items to measure 1) attitudes toward global education (8 items), 2) the frequency of teaching and learning about social studies benchmarks (2 items), and 3) the effectiveness of teacher education programs (3 items). The Cronbach’s alpha for each measurement was from .85, .73, and .92, respectively. The values were above or close to .80, indicating that the survey achieved good measure of the internal consistency based on George and Mallery’s (2003) rules of thumb (Cited from Gliem & Gliem, 2003). Table 3.3, 3.2, and 3.3 show Cronbach’s Alpha Coefficients for the pre-service teachers’ survey responses.
<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It is important that courses offered by the teacher education program emphasize developing a global worldview or perspective.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
<tr>
<td>2. It is important that the teacher education program provide courses to promote the understanding of different cultures and ethnic groups.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
<tr>
<td>3. The understanding of world history and different cultures will benefit your future teaching of social studies’ content.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
<tr>
<td>4. Courses that discuss global issues, conditions and development will help you to develop a global worldview or perspective.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
<tr>
<td>5. Cross-cultural experiences will help you to develop a global worldview or perspective.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
<tr>
<td>6. Applying different teaching methods will promote students’ understanding of social studies content knowledge.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
<tr>
<td>7. Making global connections is one of the important goals for teaching social studies.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
<tr>
<td>8. It is important that the teacher education program prepare teachers to teach global education.</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
</tbody>
</table>

Reliability Coefficients

Cronbach’s Alpha .85

Table 3.4: Eight-item Statements to Measure Students’ Attitude Toward Global Education and Its Cronbach’s Alpha Coefficient
<table>
<thead>
<tr>
<th>Item</th>
<th>Never</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Making global connections is one of the benchmarks for social</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>studies. How often do your teachers mention this standard from those</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>courses you have taken (INCLUDE this semester) from the teacher</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>education program?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How often do your teachers teach you how to reach the social</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>studies standards from those courses you have taken (INCLUDE this</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>semester) from teacher education program?</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Reliability Coefficients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>.73</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.5: Two-item Statements to Measure the Frequencies of Teaching about Social Studies Benchmarks and Its Cronbach’s Alpha Coefficient

<table>
<thead>
<tr>
<th>Item</th>
<th>Extremely</th>
<th>Poor</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How effective are the courses offered by the teacher education</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>program in developing a global worldview or perspective?</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>2. What is the effectiveness of the teacher education programs in</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>preparing preservice social studies teachers to teach global</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>interconnectedness?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Overall, what is the effectiveness of the courses offered by the</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>teacher education program to prepare pre-service social studies</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>teachers to teach global education?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability Coefficients</td>
<td>Cronbach’s Alpha</td>
<td>.92</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.6: Three-item Statements to Measure the Effectiveness of Teacher Education Programs in Taiwan in Preparing Pre-service Teachers and Its Cronbach’s Alpha Coefficient
3.7 Data Collection

Two primary data collection methods were included in this research: 1) survey, and 2) document analysis. In this study, there were two phases of survey data collections because of the time constraints on the first phase of collecting survey data and different ways to collect data in a survey were chosen and implemented in order to reach more participants. According to Fowler (2009), “The choices of data collection mode, mail, telephone, the Internet, personal interview, or group administration, is related directly to the sample frame, research topic, characteristics of the sample, and available staff and facilities,…” (p.69). Hence, three methods of data collection were included: 1) self-administered, 2) email survey and 3) mailed out survey.

3.7.1 The First Phase of Survey Data Collection

The major method for data collection of a survey at this time was self-administered to a group of pre-service social studies teachers by the researcher herself. That is, the researcher went to different universities and classrooms to deliver a short verbal explanation about the study to the participants, distributed the questionnaires, and answered their related questions in completing the survey questions. In the late May of 2009, the researcher went to Taiwan to collect the survey data by herself after receiving the IRB approval in May 5th 2009. Before distributing the surveys, the researcher contacted school administrators, directors of teacher education centers, departments’ heads, and classroom instructors of different universities through phone calls and via emails in order to gain permissions to conduct research in different
schools and classrooms. A total of 129 surveys from the pre-service teacher participants and five surveys from the faculty participants were collected.

Mailed-out questionnaires were also included in this study in order to reach the far-distanced participants. After contacting some of the relevant schools in Taiwan, one of the directors from one of the teacher education centers suggested that the researcher mailed the questionnaires to him. The researcher clearly explained the purposes of the study, the participants for the study, the content of the survey questionnaire, and the required time to complete the survey to the director. A total of 10 surveys from the pre-service secondary social studies teacher participants were mailed out and collected. In addition, one faculty survey was collected through mail.

A total of six questionnaires for the pre-service teacher participants and one faculty questionnaire were emailed out to a school located in the southern part of Taiwan. The list for the students and email accounts was obtained after contacting one of the school administrators through both phone calls and email exchange to provide some information about the researcher and to explain the purpose of the study. The faculty’s email address was obtained from the school website. Even though two follow-up reminders were sent out via email, no survey was collected from the pre-service teacher participants. However, two faulty surveys were collected via email in different schools.
3.7.2 The Second Phase of Survey Data Collection

Due to the time constraints of the research and of school academic calendars\textsuperscript{12} from the first phase of survey data collection, the second phase of survey data collection was implemented from September 2009 to March 2010. Methods of survey data collection at this time included direct administration of the survey, mail-out and email out surveys.

Beginning September 2009, the researcher continued to contact the target schools or schools that were left out during the first phase of data collection based on the list obtained from the MOE Department of Secondary Education. In addition, the researcher asked two friends to help with the survey data collection in Taiwan and the researcher herself was in-charge of contacting schools and teachers and asking permissions for survey distribution and collection because there were still schools that needed to be surveyed and there were still students from different departments that had not been surveyed in schools that have already been surveyed.

The direct administration of the survey distribution and collection at this time was done by one of the two friends who had a PhD degree in Children’s Literature and is now teaching in a university in Taiwan. The researcher sent her both pre-service teacher and faculty surveys a couple of days before the scheduled time to distribute and collect data in classrooms. We discussed the previous survey data collections and talked about possible questions and concerns through phone calls and via emails. A total of 98 surveys from the pre-service teacher participants were collected at this time.

\textsuperscript{12} Normally, universities hold final exams in the mid-June and summer break follows one week after. Some schools have early final exams scheduled for graduating seniors.
The method of mail-out questionnaires was applied in the second phase of the survey data collection. Permissions were gained by the researcher from phone calls and via emails. The other friend of the researcher in Taiwan mailed out all the needed questionnaires after receiving confirmation from the researcher. Returned postages were attached and surveys were sent to the instructors who agreed to participate themselves and their students. There were follow up phone calls and email confirmations from the researcher to ensure the classrooms instructors received the survey questionnaires and to confirm that the finished questionnaires had been sent back. A total of 38 surveys from the pre-service teacher participants were received. One faulty survey was also collected through the mail.

<table>
<thead>
<tr>
<th>Methods of Data Collection</th>
<th>Number of Survey Received from the First Phase of Survey Data Collection</th>
<th>Number of Survey Received from the Second Phase of Survey Data Collection</th>
</tr>
</thead>
</table>
| Direct Administration      | Pre-service teachers: 129  
Faculty: 5                                                                                   | Pre-service teachers: 98  
Faculty: 0                                                                                   |
| Mail-out                   | Pre-service teachers: 10  
Faculty: 2                                                                                   | Pre-service teachers: 38  
Faculty: 1                                                                                   |
| Email                      | Pre-service teachers: 0  
Faculty: 1                                                                                   | Pre-service teachers:  
Faculty: 2                                                                                   |
| Sub-total                  | Pre-service teachers: 139  
Faculty: 8                                                                                   | Pre-service teachers: 136  
Faculty: 3                                                                                   |
| Survey Total              | Pre-service teachers: 275  
Faculty: 275                                                                                   | Pre-service teachers:  
Faculty: 11                                                                                   |

Table 3.7: Number of Surveys Collected from Pre-service Teacher and Faculty Participants
Relevant document was collected and analyzed before and during the first phase of survey data collection. The reason why relevant document had to be collected before the distribution of questionnaires was because the researcher had to obtain information about the target schools and to decide on what research population to use. The first phase of the survey distribution began after the researcher had a list of participating schools and received permission from individual school and faculty members. Similar data collection procedures were applied on the second phase of data collection. Survey questionnaires were distributed focusing on the target population that did not participate or was left out in the initial survey distribution due to the time constraints. Document analysis at this time aimed to find relevant data to answer the research questions and to inform and assist the survey data collected.
<table>
<thead>
<tr>
<th>School Semester</th>
<th>Research Calendar</th>
<th>Research Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Second Semester of 2008-2009</td>
<td>May</td>
<td>• The Ohio State University reviewed and officially approved the study.</td>
</tr>
<tr>
<td></td>
<td>June</td>
<td>• Collected and reviewed related document on-line.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Traveled to Taiwan to collect survey data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contacted the officials and administrators of the target schools and ask for permission to conduct the survey research via email or by phone.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contacted departments and teacher education centers of target schools and ask permission to participate in the survey research via email or by phone.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Conducted the survey research in individual schools.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Continued the survey research in different schools.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Traveled back to the United State.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Continued document collection and analysis.</td>
</tr>
<tr>
<td>Summer 2009</td>
<td>July</td>
<td>• Reviewed collected survey data.</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>• Collected and analyze related document continued.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Set up plans for the second phase of survey distribution and collection and focused on the individual schools and departments that did not</td>
</tr>
<tr>
<td></td>
<td></td>
<td>participate due to the time constrain of the researcher.</td>
</tr>
<tr>
<td>The First Semester of 2009-2010</td>
<td>September</td>
<td>• Contacted the schools, departments, teacher education centers, and faculty that did not participate in the first phase of survey research due to the time constrain and ask permission to conduct the survey research via email or by phone.</td>
</tr>
<tr>
<td>School Year</td>
<td>October</td>
<td>• Began the second phase of survey distribution and collection via email or mail out.</td>
</tr>
<tr>
<td></td>
<td>November</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December</td>
<td></td>
</tr>
<tr>
<td></td>
<td>January</td>
<td></td>
</tr>
<tr>
<td></td>
<td>February</td>
<td></td>
</tr>
<tr>
<td>The Second Semester of 2009-2010</td>
<td>March</td>
<td>• Finished survey data collection.</td>
</tr>
<tr>
<td>School Year</td>
<td>April</td>
<td>• Collected any further relevant document</td>
</tr>
<tr>
<td></td>
<td>May</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.8: Timeline for the Study

Continued
Table 3.8 Continued

<table>
<thead>
<tr>
<th>School Semester</th>
<th>Research Calendar</th>
<th>Research Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Second Semester of 2010-School Year</td>
<td>June-September</td>
<td>• Completed data analysis, writing, and revisions of the study.</td>
</tr>
</tbody>
</table>

3.8 Data Analysis

Different data analysis approaches were utilized to analyze the data that were collected from the survey questionnaires. The Statistical Package for the Social Sciences (SPSS) was used to analyze quantitative data from survey questionnaires. Quantitative data were entered into an electronic database sorted by survey questions. Descriptive data was used to organize and summarize the demographic data and faculty survey data. Means, ranges, and standard deviations were calculated for coursetaking and availabilities as well as for the demographic variables. T-tests were used to determine whether there were statistical significances that existed among the groups.

The second section of the survey questionnaire consisted of open-ended questions that were used to collect qualitative data. The survey participants were asked to provide answers to questions consisting factors that constrain or support the implementation of global education in teacher education programs in Taiwan. In order to analyze these qualitative data collected from the survey responses, key-word-in-
context, word counts techniques, coding and assigned categories were utilized in the study.

“Researchers create key-word-in-context lists by finding all the places in a text where a particular word or phrase appears and printing it out in the context of some number of words before and after it” (Ryan & Bernard, 2000, p.775). After gathering all the survey responses, the researcher listed all the answers for the open-ended questions and circled key words for each answer. Word counts were then applied to discover patterns and themes from the responses of open-ended questions (Ryan & Bernard, 2000).

Based on the patterns emerged from the analysis, the researcher assigned different categories and put all those assigned categories in order. These assigned categories included as the followings.

<table>
<thead>
<tr>
<th>Categories of the Support Factors</th>
<th>Categories of the Constraining Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  The impact of globalization</td>
<td>Curriculum</td>
</tr>
<tr>
<td>2  Curriculum</td>
<td>Teachers’ expertise and preparation</td>
</tr>
<tr>
<td>3  Teachers’ expertise and preparation</td>
<td>Government Policies</td>
</tr>
<tr>
<td>4  The improvement of technology</td>
<td>Time constraints for courses completion</td>
</tr>
<tr>
<td>5  Policies</td>
<td>Exam/ Test driven system</td>
</tr>
<tr>
<td>6  International perspectives</td>
<td>Teaching materials</td>
</tr>
<tr>
<td>7  Course contents and Teaching materials</td>
<td>Language training/ constraints</td>
</tr>
<tr>
<td>8  Insufficient resources</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.9: Emerging Categories for the Support and Constraining Factors
3.9 Conclusion of Chapter Three

In this chapter, the researcher discussed the research design of the study, populations and sampling strategies, the development of the survey instrument including the concerns of validity and reliability, methods of data collection and survey data analysis and some preliminary results. Related tables were listed in order to report the details and to summarize some of the statements such as a list of universities with teacher education programs for pre-service teachers, the reliability of the survey instrument with the Cronbach’s Alpha Coefficient reported, methods of survey data collection, and the overall project timeline for the study.
Chapter 4

Research Findings

This study investigated “How well are secondary social studies teachers prepared to teach global education? Pre-service teachers and faculty’s perspectives of the implementation of global education in teacher education programs in Taiwan. Five related sub-questions were posed in the research.

This chapter presents the research findings of the study and consists of the following sections: description of the participants and findings for research questions one through five.

4.1 Description of the Participants

According to the “Teacher Education Law,” there are three different kinds of institutions that provide teacher education in preparing both primary and secondary teachers. These three types of institutions include: 1) normal universities, 2) universities with departments of teacher education, and 3) universities with teacher education centers.
Based on the list\textsuperscript{13} provided by the MOE Department of Secondary Education, there were a total of 17 universities that provided teacher education programs for pre-service secondary social studies teachers\textsuperscript{14} in the 2008-2009 school year. Among the 17 universities, there were two normal universities, two universities with departments of teacher education, and 13 universities with teacher education centers. The pre-service teacher participants were from two out of two normal universities, two out of two universities with departments of teacher education, and seven out of 13 universities with teacher education centers. The faculty participants were from two out of two normal universities and seven out of 13 universities with teacher education centers. Table 4.1 presents the list of the total number of universities with teacher education programs.

\textsuperscript{13} There were a total of 54 universities that provided teacher education programs on the original list posted on the MOE Department of Secondary Education website. These 54 universities included eight normal/educational universities, 10 universities with departments of teacher education, and 36 universities with teacher education centers that provided teacher education programs for primary, secondary, and special education. Not every university has a teacher education program for secondary pre-service social studies teachers.

\textsuperscript{14} The result of the final list was examined by the researcher and double-checked with individual universities through phone calls, as well as from school websites.
Table 4.1: Participating Schools of Universities with Teacher Education Programs for Pre-service Secondary Social Studies Teachers in the 2008-2009 School Year

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Number of Participating Schools for Pre-service Teachers</th>
<th>Number of Participating Schools of Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Normal Universities</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2. Universities with Departments of Teacher Education</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3. Universities with Teacher Education Centers</td>
<td>13</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>% of Total</td>
<td>64.71%</td>
<td>52.94%</td>
<td></td>
</tr>
<tr>
<td>Total Number of Participants</td>
<td>275</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

4.1.1 Pre-service Teacher Participants

The pre-service teacher participants were all college students who were enrolled in the teacher education programs in the 2008-2009 and 2009-2010 school years in Taiwan. There were a total of 275 students took the survey. One hundred and ninety-eight (72%) of the pre-service teacher participants were female while 77 (28%) were male. A total of 235 (85.5 %) pre-service teacher participants who took the survey were undergraduate students. Thirty-eight participants (13.8 %) pre-service teacher were master’s students and two (0.7 %) participants were doctoral students.

The fields of study (majors) of the pre-service teacher participants varied. There was a total of 13 different majors reported from the survey data for the pre-service teacher participants. These 13 majors include: 1) history (32.3%), 2) civic education and leadership (32.3 %), 3) geography (27.2 %), 4) education (4%), 5) politics (0.7%), 6) law (0.7%), 7) philosophy (0.4%), 8) public affairs (0.4%), 9)
religion (0.4%), 10) linguistics (0.3%), 11) arts (0.3%), 12) special education (0.3%), 13) civics and society (0.3%).

Among these major categories, history, civic education and leadership and geography majors consisted a total of 253 pre-service teacher participants, 91.8% of the total population of the pre-service teacher participants. The possible reason that explains this finding was that even though the Grade 1-9 Curriculum named social studies as one of the seven learning areas, secondary social studies teachers have to teach separate subjects—history, geography, and civics or civic education instead of social studies in the middle and senior high schools. Furthermore, while taking courses provided by the teacher education program, the pre-service social studies teachers did not have to take more courses related to their subject areas since they came from related majors. Therefore, most of the students who decided to become social studies teachers came from the history, geography, and civic education and leadership majors.

In terms of student status in the teacher education program, there was a total of 160 (58.2%) second-year students enrolled in teacher education programs who participated in this study. Seventy-five (27.3%) of the pre-service teacher participants were third-year students enrolled in teacher education programs. Thirteen (4.7%) were student teaching interns and two (0.7%) were certified teachers.

Survey data reported the average completed credit hours of the required courses and elective courses by the pre-service teacher participants when they took the survey. Six-nine percent of pre-service teacher participants had completed at least 10 or more required credit hours in the teacher education programs. Only 30.9% of the
pre-service teacher participants had completed less than 10 credit hours in required
courses. In terms of elective courses, 41.5% of the pre-service teacher participants
have finished more than ten credit hours of elective courses and 58.5% have
completed less than 10 elective credit hours in teacher education programs. The mean
scores and standard deviation for the hours in required courses are 11.37 and 5.53,
respectively. The mean scores and standard deviation for the elective courses are 9.87
and 5.66, respectively.

The above survey finding showed that most of the pre-service teacher
participants had some coursetaking experience in teacher education programs. In
essence, according to the “Teacher Education Law,” all college students who are
enrolled in a teacher education program have to finish their degree and all the required
coursework by the teacher education programs within four years\(^{15}\) and the six-month
student teaching internship. Pre-service teachers are able to receive their degree and
finish course requirements in the teacher education programs in less than four years if
they receive excellent grades. However, the six-month long student teaching
internship for pre-service teachers is still required despite early graduation.
Universities with teacher education programs can admit university graduates into
teacher education programs. At least one year of coursework and six months of
internship is the required time for university graduates to finish the required
coursework in teacher education programs.

\(^{15}\) All the universities with teacher education programs are four-year universities. Students who are
enrolled in teacher education programs are required to earn their college degree and to complete their
pre-service teacher coursework in four years. However, extensions may apply based on different
situations for individual students.
Compared to the students who had less experience taking courses in teacher education programs, most of the pre-service teacher participants in this study had some, and therefore had more knowledge about and experience with available courses provided in teacher education programs. This survey finding also helped to explain why the researcher decided to focus on at least the second year pre-service teachers in the teacher education programs—the second or the third year of pre-service teachers enrolled in the teacher education programs had more knowledge about and experience in taking courses and were more capable of answering the survey questions the researcher intended to explore. Table 4.2 presents the characteristics of the pre-service teacher participants.
<table>
<thead>
<tr>
<th>Sex</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>198</td>
<td>72</td>
</tr>
<tr>
<td>Male</td>
<td>77</td>
<td>28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Education Level</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>235</td>
<td>85.5</td>
</tr>
<tr>
<td>Master</td>
<td>38</td>
<td>13.8</td>
</tr>
<tr>
<td>Doctoral</td>
<td>1</td>
<td>0.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field of Study/ Major</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic Education</td>
<td>89</td>
<td>32.3</td>
</tr>
<tr>
<td>History</td>
<td>89</td>
<td>32.3</td>
</tr>
<tr>
<td>Geography</td>
<td>75</td>
<td>27.2</td>
</tr>
<tr>
<td>Education</td>
<td>11</td>
<td>4.0</td>
</tr>
<tr>
<td>Politics</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Law</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Philosophy</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Public Affairs</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Religion</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Linguistics</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Arts</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Special Education</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Civic &amp; Society</td>
<td>1</td>
<td>0.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Status in Teacher Education program</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Year</td>
<td>160</td>
<td>58.2</td>
</tr>
<tr>
<td>Third Year</td>
<td>75</td>
<td>27.3</td>
</tr>
<tr>
<td>Student Interns</td>
<td>13</td>
<td>4.7</td>
</tr>
<tr>
<td>Certified Teachers</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Others</td>
<td>25</td>
<td>9.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hours of Completed Courses</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;10 Credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥10 Credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;10 Credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥10 Credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>11.37</td>
<td>5.53</td>
</tr>
<tr>
<td>Standard Deviation (SD)</td>
<td>5.66</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2: Characteristics of Pre-service Teacher Participants (n=275)
More demographic data were collected pertaining to 1) overseas travel experience and their impact, and 2) resources for getting global issues and information for the pre-service teacher participants. A total of 31.6% of the pre-service teacher participants reported that they had no overseas experience. More than half (56.8%) of the pre-service teacher participants reported that they had 1-4 times of overseas travel experience, 11.6% reported more than 5 times of traveling abroad. A total of 52.6% reported that traveling abroad had a great impact or helped them to develop a global worldview or perspective, 43.3% reported that traveling abroad had some impact or help. Only 4.1% reported no impact or help. The average length of overseas stay were 57.5 days. Table 4.3 presents the survey data of the participants’ overseas travel experience.

<table>
<thead>
<tr>
<th>Overseas Travel Experiences</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Time</td>
<td>31.6</td>
<td></td>
</tr>
<tr>
<td>1~4 Times</td>
<td>56.8</td>
<td></td>
</tr>
<tr>
<td>&gt;5 Times</td>
<td>11.6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impacts from Overseas Travel</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Impact</td>
<td>4.1</td>
</tr>
<tr>
<td>Some Impact</td>
<td>43.3</td>
</tr>
<tr>
<td>Great Impact</td>
<td>52.6</td>
</tr>
</tbody>
</table>

| Average Days of Overseas Stay | 57.5 days |

Table 4.3: Overseas Travel Experience of the Pre-service Teacher Participants

There were 86.3% of the pre-service teacher participants reported that news or information from the Internet influenced them the most regarding their understanding
of global conditions and development or important issues. Others responses, to “check all that apply” survey questions included: 1) 82.5% reported “broadcast or newspaper,” 2) 51.6% reported “school classes or extracurricular activities,” 3) 36.7% reported “what you encountered from traveling abroad,” 4) 36% reported “issues discussed by classmates and relatives,” and 5) 1.1% reported “others.”

A total of 92.7% of the pre-service teacher participants reported that the Internet was their main source of obtaining global information, 80.4% reported TV, 60.7% reported Newspaper, 53.5% reported periodicals and magazines, 14.5% reported radios and 2.9% reported others. A total of 93.8% reported the frequencies of discussing current issues or politics was 1-10 times, 1.8% reported more than 11 times and 4.4 reported none. Table 4.4 summarizes the survey data.
### Sources that Influenced Understanding of Global Conditions or Issues

<table>
<thead>
<tr>
<th>Items</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>News or Information from the Internet</td>
<td>86.3</td>
</tr>
<tr>
<td>Broadcast or Newspaper</td>
<td>82.5</td>
</tr>
<tr>
<td>School Classes or Extracurricular Activities</td>
<td>51.6</td>
</tr>
<tr>
<td>What You Encountered from Traveling Abroad</td>
<td>36.7</td>
</tr>
<tr>
<td>Issues Discussed by Classmates and Relatives</td>
<td>36.0</td>
</tr>
<tr>
<td>Others</td>
<td>1.1</td>
</tr>
</tbody>
</table>

### Sources of Getting Global Information

<table>
<thead>
<tr>
<th>Items</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet</td>
<td>92.7</td>
</tr>
<tr>
<td>TV</td>
<td>80.4</td>
</tr>
<tr>
<td>Newspaper</td>
<td>60.7</td>
</tr>
<tr>
<td>Periodicals and Magazines</td>
<td>53.5</td>
</tr>
<tr>
<td>Radio</td>
<td>14.5</td>
</tr>
<tr>
<td>Others</td>
<td>2.9</td>
</tr>
</tbody>
</table>

### Frequencies of Discussing Current Issues and Politics Weekly

<table>
<thead>
<tr>
<th>Frequencies</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Time</td>
<td>4.4</td>
</tr>
<tr>
<td>1-10 Times</td>
<td>93.8</td>
</tr>
<tr>
<td>11 and more</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Table 4.4: Sources that Influenced Understanding of Global Issues and Obtaining the Global Information from and Frequency of Discussing Current Issues and Politics Weekly of Pre-service Teacher Participants

### 4.1.2 Faculty Participants

The faculty participants in this study taught the required courses for pre-service secondary social studies teachers in teacher education programs in Taiwan. A total of 11 faculty surveys were collected from nine universities. Among those, two were normal universities and seven were universities with teacher education centers.
There were a total of 10 (90.9%) male faculty participants and one (9.1%) female faculty participant in this study. All 11 faculty participants held Ph.D. degrees. Five (45.5%) had doctoral degrees in geography, four (36.4%) had doctoral degrees in history, and two (18.1%) had doctoral degrees in education. The average number of years they have been teaching is 15.75 years ranging from forty years for the longest and four years for the shortest. The average number of years of overseas stay was 1.5 years, ranging from 8.5 years for the longest and two weeks for the shortest. Table 4.5 presents the demographic data for the faculty participants.

<table>
<thead>
<tr>
<th>Sex</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>90.9</td>
</tr>
<tr>
<td>Highest Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctoral</td>
<td>11</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fields where Doctoral Degrees were Received from</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography</td>
<td>5</td>
<td>45.5</td>
</tr>
<tr>
<td>History</td>
<td>4</td>
<td>36.4</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
<td>18.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Years of Teaching</th>
<th>15.75</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Years of Staying Abroad</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.5: Characteristics of Faculty Participants (n=11)

4.2 Results for Research Question One

Research Question 1a) *How well do secondary social studies pre-service teachers think they are prepared to teach global education?*
The survey question: Overall, what is the effectiveness of the courses offered by the teacher education program to prepare pre-service social studies teachers to teach global education? Possible answers are “Extremely poor,” “Below average,” “Average,” “Above average,” and “Excellent,” which were ranked from 1 to 5, respectively. Descriptive statistics and the frequencies and percentages for all possible responses are listed in Table 4.6.

<table>
<thead>
<tr>
<th>Effectiveness in preparing pre-service social studies teachers to teach global education</th>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>117</td>
<td>42.6</td>
</tr>
<tr>
<td></td>
<td>Below Average</td>
<td>80</td>
<td>29.1</td>
</tr>
<tr>
<td></td>
<td>Above Average</td>
<td>60</td>
<td>21.8</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>16</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>Extremely Poor</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>Excellent</td>
<td>2</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Table 4.6: Effectiveness in Preparing Pre-service Social Studies Teachers to Teach Global Education (n=275)

The table shows that the scores of the pre-service social studies teachers’ self-evaluation in regards to the effectiveness of the courses offered by the teacher education programs in preparing pre-service social studies teachers to teach global education. A total of 117 (42.6%) pre-service teacher participants rated the overall effectiveness of courses provided by the teacher education program were about the
“Average.” Eighty (29.1%) pre-service teacher participants rated them “Below Average” and 60 (21.8%) pre-service teacher participants rated them “Above Average.” Sixteen (5.8%) rated them “Extremely Poor” and two (0.7%) rated them “Excellent.”

A total of 179 (65.1%) pre-service teacher participants rated the teacher education programs “average” and above while 34.95% rated the opposite. The mean score is 2.83 and the standard deviation is 0.86. If ranked using the possible responses ranging from 1 to 5, the mean score stands between the categories of “Average” and “Below Average” which indicates that the result is closer to but less than the “Average.”

Two related survey questions were added to the survey questionnaire to collect data for the effectiveness of courses provided by teacher education programs in developing a global worldview or perspective and in preparing pre-service teachers to teach global interconnectedness. As stated in Chapter one, MOE mandated a requirement for social studies students to learn how to create global connections and to develop an international worldview or perspective, and thus two survey questions then became critical indicators in helping to evaluate the effectiveness of teacher education programs in preparing pre-service teachers to teach global education. The survey findings are listed below.

In regards to the effectiveness of courses offered by teacher education programs in developing a global worldview or perspective, 128 (46.6%) pre-service teacher participants reported “Average,” 66 (24%) reported “Below Average,” 57
(20.7%) reported “Above Average,” 20 (7.3%) reported “Extremely Poor,” and four (1.4%) reported “Excellent.” The mean score is 2.85 and the standard deviation is 0.88.

The finding of the previous survey question is very similar to the survey result that pre-service teacher participants reported regarding the overall effectiveness of teacher education programs in preparing pre-service teachers to teach global education. A total of 189 (68.73%) reported “Average” and better. Eighty-six (31.27%) reported “Below Average” and worse. The mean score 2.85 stands between “Average” and “Below Average” but is close to the “Average” if ranked from 1 to 5.

In terms of the effectiveness of the teacher education program in preparing pre-service social studies teachers to teach global interconnectedness, a total of 119 (43.2%) pre-service teacher participants reported “Average,” 71 (25.8%) reported “Below Average,” 62 (22.4%) reported “Above Average,” 17 (6.1%) reported “Extremely Poor,” and four (1.4%) reported “Excellent.” The mean score is 2.86 and the standard deviation is 0.87. Table 4.7 presents the survey findings of the effectiveness in the teacher education programs in helping and preparing pre-service social studies teachers to develop a global worldview or perspective and to teach global interconnectedness.
Table 4.7: Effectiveness in Preparing Pre-service Social Studies Teachers to Develop a Global Worldview or Perspective and to Teach Global Interconnectedness (n=275)

The mean score reported by the pre-service teacher participants regarding the effectiveness of the teacher education programs in preparing pre-service secondary social studies teachers to teach global education was less but closer to the “Average.” The pre-service teacher participants thought that the preparation they received from teacher education programs were very similar to other pre-service teachers enrolled in different teacher education programs in Taiwan. To some degree, the pre-service teacher participants were not very confident about their preparation in teaching global
education. Furthermore, if interpreting this mean score by pointing out that there were a total of 197 (71.7%) of the pre-service teacher participants reported the “Average” and “Below Average,” it is reasonable to say that the results of the effectiveness of teacher education programs tend to be insufficient in preparing pre-service teacher participants to teach global education.

However, the mean scores alone are not sufficient to determine the result because the evaluation of effectiveness of teacher education programs in Taiwan cannot be based solely on one research finding. Therefore, in order to get a better understanding of the effectiveness of teacher education programs in preparing pre-service secondary social studies teachers to teach global education, the research results of teaching social studies standards in the classes, course taking experiences, attending seminars or activities on different cultures were then discussed in the following pages.

4.2.1 Social Studies Standards

Global connections is one of the social studies thematic strands. “The purposes of the social studies thematic strands are to categorize the context of the social studies curriculum and to organize the competition indicators into the nine thematic strands; however, there are no priorities among these nine thematic strands” (Zhan, 2003). Based on the sequences and design of the nine social studies thematic strands we can see some logic and meanings behind them. These nine social studies thematic strands include: 1) people and time, 2) people and space, 3) evolution and change, 4) meanings and values, 5) self, interpersonal, and group, 6) power, rules and human rights, 7) production, distribution, and consumption, 8) science, technology, and
society, and 9) global connections. The first eight thematic strands connect together then focus on creating global connections—the last thematic strand. Therefore, the thematic strand of global connections plays an important role in helping students to connect all the aspects together in order to make the learning of the social studies area more meaningful and practical.

In order to reach the curriculum goals, the curriculum design for social studies learning area “was based on the structures of 1) thematic strands, 2) learning stages \textsuperscript{16}, and 3) competition indicators” in order to reach the curriculum goals (Zhang, 2002, p.5). Even though the term of global education is not list on the social studies standards, it is a critical issue of global education and a primary condition of explaining the necessity of global education implementation—global connections is required from the social studies standards. As one of the nine thematic strands of social studies learning area and as playing a role to synthesize the other eight thematic strands, the importance of creating “global connections” cannot be over-emphasized. Due to this reason, two survey questions were designed to collect data to investigate the preparation in teaching and achieving social studies standards. While discussion global connections, it is inevitable that the pre-service social studies teachers gain knowledge and perspectives of and have better understanding of the complex relationships among the self, social, cultural, political, economical issues. The followings are these two survey questions and their results.

\textsuperscript{16} There are three learning stages in the elementary levels and one in the middle school level. Grades 1 to 2 is the first learning stage, grades 3 to 4 is the second learning stage, grades 5 to 6 is the third learning stage, and grades 7 to 9 is the fourth learning stage.
Survey Question: Making global connections is one of the benchmarks for social studies. How often do your teachers mention this standard from those courses you have taken (INCLUDE this semester) from the teacher education program. Possible answers include: Never, Very Rarely, Rarely, Occasionally, Very Frequently, and Always.

The survey result shows a total of 102 (37.1%) pre-service teacher participants who reported “Occasionally” and 75 (27.3%) who reported “Very Frequently.” These two categories consisted of 64.4 % of the total population of the pre-service teacher participants. The mean score is 4.12 which stands between the two possible answers, “Occasionally” and “Very Frequently” and the standard deviation is 1.11. Even though there were 45 (16.4%) pre-service teacher participants who chose “Rarely,” over 64% of the participants reported that their teachers talked about social studies standards “Occasionally” and “Very Frequently” in their classrooms. Table 4.8 presents the result of the frequency of teaching social studies standards in the classroom.
Table 4.8: The Frequency of Teaching Social Studies Standards in the Classroom (n=275)

Survey Question: How often do your teachers teach you how to reach the social studies standards from those courses you have taken (INCLUDE this semester) from the teacher education program. Possible answers include: Never, Very Rarely, Rarely, Occasionally, Very Frequently, and Always.

Even though more than 64% of the pre-service teacher participants reported that their teachers talked about social studies standards “Occasionally” and “Very Frequently” in the classrooms, the survey results of the frequency in regards to teaching how to reach social studies standards in the classes indicated some contradictions. Ninety-three (33.8%) of the per-service teacher participants reported “Occasionally,” whereas 62 (22.5%) reported “Rarely.” The mean score is 3.79 which is slightly lower than the previous survey result and the standard deviation is 1.17. The mean score puts the survey result between the possible answers of “Rarely” and “Occasionally.” Therefore, this survey result shows that although most of the pre-
service teacher participants thought their teachers talked about the social studies standards “Occasionally” and “Very Frequently;” the frequency of teaching of how to reach social studies standards in the classrooms tended to be done “Occasionally” and “Very Rarely.” Table 4.9 reports the results of the frequency of teachers teaching how to reach social studies standards in classes.

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>6</td>
<td>2.2</td>
</tr>
<tr>
<td>Very Rarely</td>
<td>36</td>
<td>13.1</td>
</tr>
<tr>
<td>Rarely</td>
<td>62</td>
<td>22.5</td>
</tr>
<tr>
<td>Occasionally</td>
<td>94</td>
<td>34.2</td>
</tr>
<tr>
<td>Very Frequently</td>
<td>60</td>
<td>21.8</td>
</tr>
<tr>
<td>Always</td>
<td>17</td>
<td>6.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>275</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.9: The Frequency of Teachers Teaching How to Reach Social Studies Standards (n=275)

### 4.2.2 Courses Related to Global Education

There were four survey questions designed to collect data on pre-service teacher experience with taking courses related to global education and the availability of courses related to global education in teacher education programs. These four questions include: 1) courses discuss global issues, conditions, or development, 2) courses introduce different countries, cultures or people, 3) courses teach global
connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe, and 4) courses deal with the power conflict or discrimination of different countries, people, and cultures. When participants were asked how many courses discussed global issues, conditions, and development they have taken, the survey result shows the following.

A total of 142 (51.6%) pre-service teacher participants reported that they have never taken any courses that discussed global issues, conditions, or development in teacher education programs they were enrolled. One hundred and seventeen (42.6%) reported that they took less than three course and 16 (5.8%) reported that they took four and more courses.

Among the taken courses, a total of 195 (70.9%) reported that none of the courses were required. Seventy-one (25.8%) reported that there were fewer than three required courses and five (1.8%) reported that there were more than four required courses. Table 4.10 presents the result of pre-service teacher experience with taking courses discussed global issues, conditions, or development.
<table>
<thead>
<tr>
<th>Courses Discuss Global Issues, Conditions, or Development.</th>
<th>Number of Courses being Taken</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>142</td>
<td></td>
<td>51.6</td>
</tr>
<tr>
<td>1-3</td>
<td>117</td>
<td></td>
<td>42.6</td>
</tr>
<tr>
<td>4-5</td>
<td>11</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>6 &amp; More</td>
<td>5</td>
<td></td>
<td>1.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Required Courses</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>195</td>
<td>70.9</td>
</tr>
<tr>
<td>1-3</td>
<td>71</td>
<td>25.8</td>
</tr>
<tr>
<td>4-5</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td>6 &amp; More</td>
<td>1</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Table 4.10: Pre-service Teacher Experience with Taking Courses Discussed Global Issues, Conditions, or Development (n=275)

When the participants were asked, “How many courses have you taken from teacher education programs that introduced different countries, cultures or people? How many of these courses are required courses?” A total of 113 (41.1%) reported that they did not take any courses that introduced different countries, cultures, or peoples in teacher education programs they were enrolled. One hundred and fifty-eight (50.2%) reported that they took one to three courses, 20 (7.3%) reported taking four to six courses, and four (1.5%) reported taken more than seven courses. Among the courses taken, 168 (61.1%) of the pre-service teacher participants reported none of the courses were required. One hundred (36.4%) reported one to three courses were required and seven (2.5%) reported that there were four to six were required. This survey result shows that more than half (50.2%) of the pre-service teachers have taken more than one course that introduced different countries, cultures, or people. Table
4.11 presents the result of pre-service teacher experience with taking courses that introduce different countries, cultures, or people.

<table>
<thead>
<tr>
<th>Courses Introduce Different Countries, Cultures, or People</th>
<th>Number of Courses being Taken</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>113</td>
<td>41.1</td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>158</td>
<td>50.2</td>
<td></td>
</tr>
<tr>
<td>4-6</td>
<td>20</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>7 &amp; More</td>
<td>4</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Number of Required Courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>168</td>
<td>61.1</td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>100</td>
<td>36.4</td>
<td></td>
</tr>
<tr>
<td>4-6</td>
<td>7</td>
<td>2.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.11: Pre-service Teacher Experience with Taking Courses Introduced Different Countries, Cultures, or People (n=275)

A total of one 149 (54.2%) reported that they have never taken any courses that taught global connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe. One hundred and twenty-five (41.8%) reported one to three courses and 11 (4.0%) reported more than four courses did. Among these courses, a total of 207 (75.3%) reported none was required courses. Sixty-one (22.2%) reported one to three were required and seven (2.5%) reported more than four courses were required courses. This survey result indicates that only 45.8% of the pre-service teacher participants have taken courses that teach global connections, the impact of globalization on local communities, or the
interconnectedness between the local and the globe. As one of the critical rationale to implement global education, the understanding with and knowledge of global interconnectedness were the fundamental concepts to build on the knowledge base and positive attitudes toward different countries and people. As stated in chapter one, there are worldwide problems and issues such as global warming and environmental degradation that cross country boundaries and require international cooperation among governments and organizations. Without the understanding with and knowledge of the global interconnectedness, international understanding and cooperation will unlikely to happen in the future. Table 4.12 presents the result of pre-service teacher experiences with taking courses that taught global connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe.

<table>
<thead>
<tr>
<th>Courses Teach Global Connections, the Impact of Globalization on Local Communities, or the Interconnectedness between the Local and the Globe.</th>
<th>Number of Courses</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>149</td>
<td>54.2</td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>125</td>
<td>41.8</td>
<td></td>
</tr>
<tr>
<td>4 &amp; More</td>
<td>11</td>
<td>4.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Required Courses</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>207</td>
<td>75.3</td>
</tr>
<tr>
<td>1-3</td>
<td>61</td>
<td>22.2</td>
</tr>
<tr>
<td>4 &amp; More</td>
<td>7</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Table 4.12: Pre-service Teacher Experience with Taking Courses Taught Global Connections, the Impact of Globalization on Local Communities, or the Interconnectedness between the Local and the Globe (n=275)
The results of the pre-service teacher experiences in taking courses that deal with the power conflict or discrimination of different countries, people and cultures from the survey show that 117 (42.5%) of the participants reported that they never took any courses that deal with power conflict or discrimination of different countries, people and countries. One hundred and forty-five (52.8%) reported one to three courses and 13 (4.7%) reported more than four courses did. Among these courses, 168 (61.1%) reported none were required courses, 100 (36.4%) reported one to three courses were required and seven (2.5%) reported that four and more were required courses. Table 4.13 presents the result of pre-service teacher experiences in taking courses that dealt with the power conflict or discrimination of different countries, people, and cultures.

<table>
<thead>
<tr>
<th>Courses Deal with the Power Conflict or Discrimination of Different Countries, People, and Cultures</th>
<th>Number of Courses</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>117</td>
<td>42.5</td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>145</td>
<td>52.8</td>
<td></td>
</tr>
<tr>
<td>4 &amp; More</td>
<td>13</td>
<td>4.7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Required Courses</th>
<th>0</th>
<th>168</th>
<th>61.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>100</td>
<td>36.4</td>
<td></td>
</tr>
<tr>
<td>4 &amp; More</td>
<td>7</td>
<td>2.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.13: Pre-service Teacher Experience with Taking Courses Deal with the Power Conflict or Discrimination of Different Countries, People and Cultures (n=275)
4.2.3 Seminars and Activities on Different Cultures

The frequency of attending seminars is also a good indicator that shows whether teacher education programs provide opportunities in supplementing insufficient course preparation related to global education for pre-service social studies teachers. If seminars related to different cultures/global issues/international perspectives/global education are available and are held frequently in teacher education programs, it shows that teacher education programs are working on providing more opportunities in helping their students to gain knowledge of and information about global education. Attending seminars on different cultures then proves that the pre-service teachers are engaged in preparing themselves to become effective global educators.

The survey result shows a total of 120 (43.6%) of the pre-service teacher participants did not attend any seminars or activities on different cultures. One hundred and three (37.5%) attended them one to three times. Eleven (4.0%) reported to have attended eight to ten times and only five (1.8%) reported that they had attended seminars and activities on different cultures for more than 15 times. Table 4.14 presents the result of the frequency of attending seminars and activities on different cultures.
Table 4.14: The Frequency of Attending Seminars and Activities on Different Cultures of the Pre-service Social Studies Teachers (n=275)

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>120</td>
<td>43.6</td>
</tr>
<tr>
<td>1-3 Times</td>
<td>103</td>
<td>37.5</td>
</tr>
<tr>
<td>4-6 Times</td>
<td>11</td>
<td>4.0</td>
</tr>
<tr>
<td>8-10 Times</td>
<td>8</td>
<td>2.9</td>
</tr>
<tr>
<td>15 &amp; More</td>
<td>5</td>
<td>1.8</td>
</tr>
<tr>
<td>Missing Data</td>
<td>28</td>
<td>10.2</td>
</tr>
<tr>
<td>Total</td>
<td>275</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.4 Interpretation of the Previous Findings

The previous research findings not only helped the researcher to interpret the results regarding the effectiveness of teacher education programs in preparing pre-service teachers to teach global education but also explained why most of the pre-service teacher participants reported themselves as the “Average” for their preparation in teaching global education. In opposition to these results, nearly 50% of the pre-service teacher participants reported that they did not take any courses that discussed global issues, conditions or development, introduced different countries, cultures or people, taught global connections, the impacts of globalization on local communities, or dealt with power conflict, discrimination, and so on. Moreover, a total of 43.6% of the pre-service teacher participants reported that they did not attend any seminars or activities on different cultures.

A review of course syllabi provided by teacher education programs indicated that global issues, conditions, problems and topics were covered in both the required and elective courses provided by teacher education programs. A possible reason to
explain why nearly 50% of the pre-service teacher participants did not take any of the previous mentioned courses is that there were no systematic or comprehensive plans in teaching related courses for global education in teacher education programs in Taiwan. Even though topics and issues related to global education were taught in different courses and by different instructors, the expertise of the instructor decided what content knowledge related to global education the pre-service teachers would learned from those courses. Therefore, there was no guarantee that every instructor would cover a substantial amount of global education related topics or issues in their teaching. Furthermore, there existed a discrepancy of the perceptions between what the pre-service teacher participants believed what they learned and what the faculty participants believed what they taught in those previous mentioned courses even though course syllabi showed topics related to global education that the instructors planned to cover. However, without a systematic teaching of global education content, the pre-service teacher participants possessed only limited content knowledge, therefore might be able to recall what they had learned while they took the surveys.

4.2.5 Attitudes toward Global Education

A total of eight items from the survey questions were designed to collect data regarding the participants’ attitudes toward global education. On a seven-point scale with seven as the highest level, “Strongly Agree” and one as the lowest, “Strongly Disagree,” the mean score for the pre-service teacher participants is 6.09, with a standard deviation of 0.64, as shown in Table 4.15. The mean score for the faculty participant is 6.33 and the standard deviation is 0.44.
Attitudes toward Global Education

<table>
<thead>
<tr>
<th>Attitudes toward Global Education</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-service Teachers</td>
<td>275</td>
<td>6.09</td>
<td>0.64</td>
</tr>
<tr>
<td>Faculty</td>
<td>11</td>
<td>6.33</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Table 4.15: Mean Score and Standard Deviation for Attitudes toward Global Education, Pre-service Teacher Participants (n=275) and Faculty Participants (n=11)

More specifically, Table 4.16 shows the range of means and standard deviation of the raw scores for all measured items for both the pre-service teacher and faculty participants. The mean scores ranged from 5.54 to 6.32 and standard deviations ranged from 0.77 to 1.10 for the pre-service teacher participants. For the faculty participants, the mean scores ranged from 6.09 to 6.54 with standard deviations ranging from 0.52 to 0.94. The Chonbach’s Alpha for the pre-service teacher and faculty participants are .85 and .79, respectively.
<table>
<thead>
<tr>
<th>Item</th>
<th>Pre-service Teachers</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>1. It is important that courses offered by the teacher education program emphasize developing a global worldview or perspective.</td>
<td>5.97</td>
<td>0.99</td>
</tr>
<tr>
<td>2. It is important that the teacher education program provide courses to promote the understanding of different cultures and ethnic groups.</td>
<td>6.13</td>
<td>0.94</td>
</tr>
<tr>
<td>3. The understanding of world history and different cultures will benefit your future teaching of social studies’ content.</td>
<td>6.27</td>
<td>0.77</td>
</tr>
<tr>
<td>4. Courses that discuss global issues, conditions and development will help you to develop a global worldview or perspective.</td>
<td>6.32</td>
<td>0.90</td>
</tr>
<tr>
<td>5. Cross-cultural experiences will help you to develop a global worldview or perspective.</td>
<td>6.27</td>
<td>0.77</td>
</tr>
<tr>
<td>6. Applying different teaching methods will promote students’ understanding of social studies content knowledge.</td>
<td>6.10</td>
<td>0.77</td>
</tr>
<tr>
<td>7. Making global connections is one of the important goals for teaching social studies.</td>
<td>6.12</td>
<td>0.92</td>
</tr>
<tr>
<td>8. It is important that the teacher education program prepare teachers to teach global education.</td>
<td>5.54</td>
<td>1.10</td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>.85</td>
<td>.79</td>
</tr>
</tbody>
</table>

Table 4.16: Means, Standard Deviation and Cronbach’s Alpha of Attitudes toward Global Education Measured Items, Pre-service Teacher Participants (n=275) and Faculty Participants (n=11)

4.2.6 Application of Global Education

Survey Question: After you become a certified teacher, will you infuse global education in your teaching?

The survey result shows that the majority (93.3%) of the pre-service teacher participants will apply global education in their future classrooms in varying
frequencies. Specifically, 137 (49.8%) of the pre-service teacher participants reported that they will “Sometimes” apply global education in their future classrooms. One hundred and fourteen (41.5%) reported “Very Often,” eight (2.9%) reported “Always,” nine (3.3%) reported “Rarely” and only one (0.4%) reported “Not at all.” The mean score is 3.44 and standard deviation is 0.63. Table 4.17 reports the result of the application of global education in the future.

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Rarely</td>
<td>9</td>
<td>3.3</td>
</tr>
<tr>
<td>Sometimes</td>
<td>137</td>
<td>49.8</td>
</tr>
<tr>
<td>Very Often</td>
<td>114</td>
<td>41.5</td>
</tr>
<tr>
<td>Always</td>
<td>8</td>
<td>2.9</td>
</tr>
<tr>
<td>Missing Data</td>
<td>6</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>275</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.17: Application of Global Education in the Future (n=275)

4.2.7 Faculty’s Perspectives

**Research Question 1b)** How well do university faculty and leaders in Taiwan think secondary social studies pre-service teachers are prepared to teach global education?

The survey result shows that six (54.5%) of the faculty participants reported that the effectiveness of teacher education programs in preparing pre-service social studies teachers to teach global education is “Above Average.” Five (45.5%) faculty participants reported “Average.” The mean score is 3.55 and the standard deviation is
0.52. The mean score stands between the categories of “Average” and “Above Average” but is closer to “Above Average.” This result indicates that compared to the pre-service teacher participants’ responses the faculty participants possessed a more positive attitude toward the effectiveness of their teacher education programs in preparing pre-service teachers to teach global education.

The faculty participants were asked about the effectiveness of the courses provided by teacher education programs that promote the development of a global worldview or perspective. Seven (63.6%) reported “Above Average” and four (36.4%) reported “Average.” The mean score is 3.64 and the standard deviation is 0.5. Table 4.18 shows the result of the effectiveness of teacher education programs in preparing pre-service teachers to teach global education and in developing a global worldview or perspective.
### Table 4.18: Effectiveness in Preparing Pre-service Social Studies Teachers to Teach Global Education and in Developing a Global Worldview or Perspective (n=11)

<table>
<thead>
<tr>
<th>Effectiveness in preparing pre-service social studies teachers to teach global education</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.55</td>
<td>0.52</td>
</tr>
<tr>
<td>Category</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Above</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td>Average</td>
<td>5</td>
<td>45.5</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>3.64</td>
<td>0.5</td>
</tr>
<tr>
<td>Effectiveness in developing a global worldview or perspective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Above</td>
<td>7</td>
<td>63.6</td>
</tr>
<tr>
<td>Average</td>
<td>4</td>
<td>36.4</td>
</tr>
</tbody>
</table>

Six (54.5%) of the faculty members reported that they talked about the social studies standard “Occasionally,” two (18.2%) reported doing so “Very Frequently,” and three (27.3%) reported “Always.” The mean score is 4.73 and the standard deviation is 0.9. In contrast to the faculty survey result, a total of 70 (25.4%) of the pre-service teacher participants who reported “Rarely” and less about how often their teacher talked about the social studies standards in the classes.

In terms of teaching how to reach the social studies standards, four (36.4%) of the faculty participants reported “Occasionally,” five (45.5%) reported “Very Frequently,” and two (18.2%) reported “Always.” The mean score is 4.82 and the standard deviation is 0.75. However, a total of 104 (37.8%) of the pre-service teacher participants reported the opposite. One of the possible reasons to explain the
discrepancy between the pre-service teacher and faculty member responses was the possible differences between the beliefs of the faculty members and the pre-service teachers. That is, the beliefs of what the faculty believed they have done and what the pre-service teachers believed or remembered what they heard and were taught in the classes. Table 4.19 shows the result of the frequency of teaching social studies standards in classes.

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occasionally</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td>Very</td>
<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td>Frequently</td>
<td>3</td>
<td>27.3</td>
</tr>
<tr>
<td>Always</td>
<td>3</td>
<td>27.3</td>
</tr>
</tbody>
</table>

Table 4.19: The Frequency of Teaching the Social Studies Standards in the Classroom (n=11)

By collecting data from the faculty participants, a comparison can be made between the pre-service teachers and the faculty in order to determine whether there are any similarities and differences between the results reported by the pre-service
teachers and by the faculty. These survey questions included: 1) the availability and requirement of the existing courses that discuss global issues, conditions, or developments, 2) the availability and requirement of existing courses that introduce different countries, cultures, or people, 3) the availability and requirement of existing courses that teach global connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe, and 4) the availability and requirement of the existing courses that deal with the power conflict or discrimination of different countries, people and cultures. The results show the mean scores for the available courses in teacher education programs to be ranging from 2.44 to 2.88. The standard deviations for the survey question listed above are 1.7, 1.81, 1.62, and 0.98, respectively. Among the available courses, the mean scores for the required courses range from 0.78 to 1.38. The standard deviations for the required course are 0.89, 0.89, 1.0, and 0.98, respectively.

There are two things worth noting from the above results. First, the standard deviation (1.0) equals to the mean score (1.0) of the required courses that teach global connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe. Second, the standard deviation (0.98) is higher than the mean score (0.78) of the required courses that deal with the power conflict or discrimination of different countries, people and cultures. These two survey results indicate that faculty’s perspectives in regards to these two survey questions are widely distributed. Table 4.20 presents the result for the courses availability in teacher education programs.
<table>
<thead>
<tr>
<th>GE Available Courses</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses discuss global issues, conditions, and development</td>
<td>2.88</td>
<td>1.7</td>
</tr>
<tr>
<td>Required courses</td>
<td>1.38</td>
<td>0.89</td>
</tr>
<tr>
<td>Courses introduce different countries, cultures or people</td>
<td>2.88</td>
<td>1.81</td>
</tr>
<tr>
<td>Required courses</td>
<td>1.0</td>
<td>0.89</td>
</tr>
<tr>
<td>Courses teach global connections, impacts of globalization etc.</td>
<td>2.56</td>
<td>1.62</td>
</tr>
<tr>
<td>Required courses</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Courses deal with the power conflicts</td>
<td>2.44</td>
<td>2.1</td>
</tr>
<tr>
<td>Required courses</td>
<td>0.78</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Table 4.20: Course Availability in Teacher Education Programs (n=11)

### 4.2.8 Summary of Research Question One

More than half (65.1%) of the pre-service teacher participants reported “Average” with a mean score of 2.83 and the standard deviation of 0.86 regarding to the effectiveness of the teacher education programs in preparing pre-service teachers to teach global education. This result is very similar to the faculty participant responses. With the mean score of 3.55 and the standard deviation of 0.52, the faculty participants reported higher evaluation scores that rated “Average” and higher regarding to the effectiveness of the teacher education programs in preparing pre-service social studies teachers to teach global education.

There existed a discrepancy between the pre-service teacher and faculty participants in their responses regarding the frequency in teaching the social studies
standards. A total of 70 (25.4%) of the pre-service teacher participants reported that their teachers “Rarely” mentioned the social studies standards in the classes in contrast to 11 faculty who reported that they mentioned the social studies standards in their classroom “Occasionally” and more often. Furthermore, 104 (37.8%) of the pre-service teacher participants reported that their teachers taught how to reach the social studies standards in the classes “Rarely” and less often while all faculty participants reported that they taught about how to reach the social studies standards “Occasionally” and more often.

Their experiences with taking courses as reported by the pre-service teacher participants and the courses availability reported by the faculty participants showed both similarities and differences. With mean scores ranging from 0.78 to 2.88, the faculty participants reported that there were courses available in discussing, introducing, teaching, and dealing with issues and topics related to global education. The pre-service teacher participants also reported some experiences with taking courses related to global education. However, a total of 142 (51.6%) pre-service teacher participants reported that they did not take any courses in discussing global issues, 113 (41.1%) reported that they did not take any courses in introducing different countries, cultures or people, 149 (54.2%) reported that they did not take any courses in teaching the global connections and the impact of globalization, and 117 (42.5%) reported having no experiences with taking course in dealing with the power conflict or discrimination.
More than half (56.4%) of the pre-service teacher participants had attended seminars and participated in activities on different cultures. However, 120 (43.6%) reported that they had attended none. As the result show above, both pre-service teacher and faculty participants hold a positive attitude toward global education with mean scores of 6.09 and 6.33, respectively and standard deviations of 0.64 and 0.44, respectively.

4.3 Results for Research Question Two

Research Question 2a) What needs in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers identify?

Pre-service teacher participants identified aspects that they thought were the most and least needed in the training of secondary social studies teacher to teach global education in teacher education programs. Possible selections included: 1) Add related courses, 2) Change the existing teaching materials and pedagogy, 3) Add and improve related resources, books, and equipment, 4) Hold related seminars and conferences, 5) Hire teachers whose specialty is in related areas, 6) Arrange exchange programs with different schools of different countries, 7) Globalize the existing curriculum, and 8) Others.

The pre-service teacher participants reported “Add related courses” as the most needed. “Changing the existing teaching materials,” “Hire teachers whose specialty is in related areas,” “Globalize the existing curriculum,” “Hold related seminars and conferences,” “Add and improve related resources, books, and equipment,” “Arrange
exchange programs with different schools of different countries” and “Others” ranked from the second to the eighth, respectively, as the result shown in Table 4.21.

Under the category of “Others,” pre-service teacher participants listed several suggestions. These included: “Website exchange services,” “Teachers lead students to travel and visit schools abroad,” and “Added related topics in existing textbooks.”

<table>
<thead>
<tr>
<th>Rank</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Add related courses</td>
</tr>
<tr>
<td>2</td>
<td>Change the existing teaching materials and pedagogy</td>
</tr>
<tr>
<td>3</td>
<td>Hire teachers whose specialty is in related areas</td>
</tr>
<tr>
<td>4</td>
<td>Globalize the existing curriculum</td>
</tr>
<tr>
<td>5</td>
<td>Hold related seminars and conferences</td>
</tr>
<tr>
<td>6</td>
<td>Add and improve related resources, books, and equipment</td>
</tr>
<tr>
<td>7</td>
<td>Arrange exchange programs with different schools of different countries</td>
</tr>
<tr>
<td>8</td>
<td>Others</td>
</tr>
</tbody>
</table>

Table 4.21: Pre-service Teacher Perspectives of the Most Needed in Teacher Education Program to Prepare Pre-service teachers to Infuse Global Education in the Future

There were open-ended survey questions that asked the pre-service teacher participants to report factors that support the implementation of global education in the existing teacher education programs. A total of seven categories were emerged from the lists of 115 factors collected from the survey data. These seven categories included: 1) The impact of globalization, 2) Curriculum, 3) Teachers’ expertise and preparation, 4) The improvement of technology, 5) Government policies, 6) International perspectives, and 7) Course contents and teaching materials. Table 4.22 lists the result
of the supported factors in implementation of global education in teacher education programs.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Categories</th>
<th>Details</th>
</tr>
</thead>
</table>
| 1    | Globalization                  | 1) The impacts of globalization  
2) The international or global trends |
| 2    | Curriculum                     | 1) More related courses were available  
2) Global and international issues were included in the curriculum  
3) The emphasis of multicultural education  
4) The introduction and comparisons of educational systems and policies backgrounds among different countries were included in regular classes. |
| 3    | Teachers’ Expertise and Preparation | 1) Teachers talked about examples or education experiences of different countries  
2) Teachers had global knowledge and possessed a global worldview or perspective.  
3) Teachers talked about global issues and news and supplemented with related resources in the classes. |
| 4    | The Improvement of Technology   | 1) The improvement of internet and world wide webs  
2) Easier and faster to get information and resources |
| 5    | Government Policies            | Making global connections is one of the requirements for social studies standards. |
| 6    | International/Global Perspectives | The emphasis of possessing a global worldview or perspective |
| 7    | Course Contents and Teaching Materials | Course contents and teaching materials talked about global education. |

Table 4.22: Supporting Factors of the Development of Global Education

The first category is globalization. Detailed factors associated with this category included the impact of globalization and the global or international trends. The pre-service teacher participants reported that the major factor that supported the
implementation of global education in teacher education programs in Taiwan was the impact of globalization. Based on the survey data, the specific factors listed by the pre-service teacher participants that associated with the major factor of the impact of globalization included: 1) the improvement of media, communication and transportation, 2) the need to prepare more competent students with the ability of understanding different cultures, more open mindedness, and perspective taking, and 3) the concern of global issues such as environmental protections and human rights. The second factor associated with the first category of globalization was the global or international trends. Details that included in the factor of global or international trends included: 1) better understanding the world development, 2) the growing numbers of the international exchange activities, and 3) the awareness of the importance of international worldview or perspective.

The second category is curriculum. Specific factors included: 1) there were more courses available related to global education in teacher education programs, 2) global and international issues were included in the existing courses, 3) the emphasis of multicultural education, and the introduction and comparisons of educational systems and the background of policies among different countries.

The third category is teachers’ expertise and preparation. Specific factors included in this category were: 1) teachers talked about examples or educational experiences of different countries, 2) teachers had global knowledge and possessed a global worldview or perspective, and 3) teachers talked about global issues and news and supplemented them with related resources in the classes.
The forth category is the improvement of technology. Details included: 1) the improvement of the World Wide Webs and 2) information and resources were easier and faster to obtain.

The fifth category is government policies. The social studies standards issued from the MOE requiring students to make global connections was the major factor associated with the category of government policies. The sixth and seventh categories are international/global perspectives and course contents and teaching materials. Specific factors associated with the above three categories included: 1) making global connections was one of the requirements from social studies standards, 2) the emphasis of possessing a global worldview or perspective, and 3) course contents and teaching materials talked about global education, respectively.

Research Questions 2b) What needs in training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do university faculty and leaders identify?

The faculty participant responses indicate “Add related courses,” “Change the existing teaching materials and pedagogy,” “Hold related seminars and conferences,” “Hire teachers whose specialty is in related area,” “Add and improve related resources, books, and equipment,” “Globalize the existing curriculum,” “Arrange exchange programs with different schools of different countries” and “Others.” These were ranked from the most to the least needed, respectively, as the result shown in Table 4.23.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Add related courses</td>
</tr>
<tr>
<td>2</td>
<td>Change the existing teaching materials and pedagogy</td>
</tr>
<tr>
<td>3</td>
<td>Hold related seminars and conferences</td>
</tr>
<tr>
<td>4</td>
<td>Hire teachers whose specialty is in related areas</td>
</tr>
<tr>
<td>5</td>
<td>Add and improve related resources, books, and equipment</td>
</tr>
<tr>
<td>6</td>
<td>Globalize the existing curriculum</td>
</tr>
<tr>
<td>7</td>
<td>Arrange exchange programs with different schools of different countries</td>
</tr>
<tr>
<td>8</td>
<td>Others</td>
</tr>
</tbody>
</table>

Table 4.23: Faculty perspectives of the Most Needed in Teacher Education Program to Prepare Pre-service teachers to Infuse Global Education in the Future

Both of the pre-service teacher and the faculty participants reported that the most and second most needed in the teacher education programs to prepare teachers to teach global education are “Add related courses” and “Change the existing teaching materials and pedagogy.” Moreover, both groups of participants reported “Arrange exchange programs with different schools of different countries” as the seventh. The results also showed a slightly differences with the pre-service teachers emphasizing more on the need to “Hire teachers whose specialty is in related areas” and the faculty participants on the need to “Hold related seminars and conferences.” “Globalize the existing curriculum” ranked the fourth for the pre-service teacher participants while the same category ranked sixth as reported by the faculty participants.

Open-ended survey questions included “to list the factors from the MOE policies that support the implementation of global education” and “what factors supported the implementation of global education from the existing courses provided by the teacher education program.” The result showed that four (36.36%) out of 11
faculty participants reported that the MOE policies supported the implementation of global education in teacher education programs. The reported survey data were organized in two major categories: MOE policies and curriculum. Specific factors associated with the category of MOE policies included: 1) teacher education programs were allowed to open elective courses related to global education, 2) emphasis on the importance of knowing different cultures in the world, 3) noticing the connections between Chinese culture and the world culture, 4) emphasis on the importance of the relationships between the Taiwanese historical culture and the global development and 5) the requirement of the pre-service teachers’ coursework was issued from the MOE and 6) the credit hours requirement for the pre-service teachers was issued from the MOE.

Specific factors associated with the category of curriculum included: 1) the required subjects for the social studies learning area were related to global education, 2) courses that discussed the issues of human rights and environment were available, 3) there were field observations for different ethnic groups and schools in the teacher education programs that helped the pre-service teachers to have better understanding of and to pay more attention to different ethnic groups and cultures, 4) courses that focused on the different Cultures around the world were available, 5) there were possibilities that teacher educators implemented global education in their classrooms if they know about global education and have a global worldview or perspective and 6) related courses and activities were available in teacher education programs. Table 4.24 presents the detailed factors associated with MOE policies and curricula in
supporting the implementation of global education in the teacher education programs in Taiwan.

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOE Policies</td>
<td>1) Teacher education programs were allowed to open elective courses related to global education.</td>
</tr>
<tr>
<td></td>
<td>2) Emphasis on the importance of knowing different cultures in the world</td>
</tr>
<tr>
<td></td>
<td>3) Noticing the connections between Chinese culture and the world culture</td>
</tr>
<tr>
<td></td>
<td>4) Emphasis on the importance of the relationships between the Taiwanese historical culture and the global development</td>
</tr>
<tr>
<td></td>
<td>5) The requirement of the pre-service teachers’ coursework was issued from the MOE.</td>
</tr>
<tr>
<td></td>
<td>6) The credit hours requirement for the pre-service teachers was issued from the MOE.</td>
</tr>
<tr>
<td>Curriculum</td>
<td>1) The required subjects for the social studies learning area were related to global education.</td>
</tr>
<tr>
<td></td>
<td>2) Courses that discussed the issues of human rights and environment were available.</td>
</tr>
<tr>
<td></td>
<td>3) There were field observations for different ethnic groups and schools in the teacher education programs that helped the pre-service</td>
</tr>
<tr>
<td></td>
<td>teachers to have better understanding and to pay more attention to different ethnic groups and cultures.</td>
</tr>
<tr>
<td></td>
<td>4) Courses that focused on the different Cultures around the world were available.</td>
</tr>
<tr>
<td></td>
<td>5) There were possibilities that teacher educators implemented global education in their classrooms if they know about global education and</td>
</tr>
<tr>
<td></td>
<td>have a global worldview or perspective.</td>
</tr>
<tr>
<td></td>
<td>6) Related courses and activities were available in teacher education programs.</td>
</tr>
</tbody>
</table>

Table 4.24: Supporting Factors for the Implementation of Global Education in Teacher Education Programs
4.3.1 Summary of Research Question Two

Both the pre-service teacher and faculty participants reported the needs in the training of secondary social studies teachers to teach global education in teacher education programs. There were similarities and differences from the survey results that both groups identified as being the most and least needed factors in teacher training from the available categories on the survey. Both pre-service teacher and faculty participants ranked “Add related courses,” “Change the existing teaching materials and pedagogy” and Arrange exchange programs with different schools of different cultures” as the first, second, and seventh most needed, respectively. Meanwhile, both groups ranked the following categories of “Hire teachers whose specialty is in related areas,” “Globalize the existing curriculum,” “Hold related seminars and conferences” and “Add and improve related resources, books, and equipment” differently, with the pre-service teacher participants ranking them third, fourth, fifth and sixth, respectively and the faculty participants ranking them the fourth, sixth, third, and fifth, respectively.

A total of seven categories were emerged from the survey data gathered from the pre-service teacher participants. These seven categories included: 1) Globalization, 2) Curriculum, 3) Teachers’ expertise and preparation, 4) The improvement of technology, 5) Government policies, 6) International/global perspectives and 7) Courses contents and teaching materials. The faculty participants also reported the supporting factors that help the implementation of global education in teacher
education programs. These factors were organized into two categories: MOE policies and curriculum.

4.4 Results for Question Three

Research Question 3a) What barriers (or potential barriers) in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers identify?

The survey question asked the pre-service teacher participants to report that “Overall, do the existing courses provided by the teacher education program SUPPORT or CONSTRAIN the implementation of global education?” A total of 96 (34.9%) the pre-service teacher participants reported “Support,” 168 (61.1%) reported “Constrain,” three (1.1%) reported neither “Support” nor “Constrain” and two reported both “Support” and “Constrain.” The result is shown in Table 4.25.

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>96</td>
<td>34.9</td>
</tr>
<tr>
<td>Constrain</td>
<td>168</td>
<td>61.1</td>
</tr>
<tr>
<td>Neither Support nor Constrain</td>
<td>3</td>
<td>1.1</td>
</tr>
<tr>
<td>Both Support and Constrain</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Missing Data</td>
<td>6</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Table 4.25: The Frequency and Percentage Regarding whether the Existing Courses Provided by Teacher Education Program “Support” or “Constrain” the Implementation of Global Education (n=275)
A total of 246 constraining factors were reported from the pre-service teacher participant responses. These 246 factors were then organized into eight major categories. These eight categories included 1) Curriculum, 2) Teachers’ expertise and preparation, 3) Government policies, 4) Time constraints, 5) Examination/test system, 6) Teaching materials, 7) Language constraints/training, and 8) Insufficient resources. Table 4.26 lists the factors that constrain the implementation of global education in the teacher education program in Taiwan.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Categories</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Curriculum</td>
<td>1) Fewer or no related courses available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Curriculum design is examination and theory focused</td>
</tr>
<tr>
<td>2</td>
<td>Teachers’ Expertise and Preparation</td>
<td>1) The total number of teachers with specialty in global education is insufficient.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) The content selected and pedagogy used by the teachers constrained the implementation of global education.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) Teachers lack of a global worldview or perspective</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4) Teachers thinking, teaching and materials constrained the implementation of global education.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5) Teachers do not pay enough attention to global education</td>
</tr>
<tr>
<td>3</td>
<td>Government Policies</td>
<td>1) Education policies issued from the government constrain the development of global education.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) The existing education system constrains the development of global education.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) The requirements of becoming certified teachers constrain the development of global education.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4) The government educational priorities constrain the implementation of global education.</td>
</tr>
<tr>
<td>4</td>
<td>Time Constraints</td>
<td>1) The distribution of time focused on finish up the coursework requirement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Insufficient time to teach global education related courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) The pressure of finishing coursework requirement in time</td>
</tr>
<tr>
<td>5</td>
<td>Examination/Test System</td>
<td>Curriculum design focused on passing the examination in order to become a certified teacher.</td>
</tr>
<tr>
<td>6</td>
<td>Teaching Materials</td>
<td>1) The contents of the teaching materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) The limitation of the teaching materials using in teacher education programs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) The insufficient teaching materials in related to global education</td>
</tr>
<tr>
<td>7</td>
<td>Language Training/Constraints</td>
<td>1) The constraints of different languages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Insufficient language training</td>
</tr>
<tr>
<td>8</td>
<td>Insufficient Resources</td>
<td>Insufficient funding and resources</td>
</tr>
</tbody>
</table>

Table 4.26: Constraining Factors in the Development of Global Education
In the table, specific factors associated with the first category, “Curriculum,” included 1) fewer or no courses related to global education are available and 2) curriculum design is examination and theory-focused.

The second category is “Teachers’ expertise and preparation.” Factors associated with this category included 1) the total number of teachers with specialty in global education is insufficient, 2) the content selected and pedagogy used by the teachers constrained the implementation of global education, 3) teachers’ lack of a global worldview or perspective, 4) teachers’ thinking, teaching and materials constrained the implementation of global education and 5) teachers do not pay enough attention to global education.

The third category is “Government policies.” It is not surprising that the government policies received such a high ranking—the third place that constrains the implementation of global education in the teacher education program. As aforementioned, Taiwan is a centralized government and most of the major education policies are from the central government—Ministry of Education. The MOE sets the criteria for the teacher education programs in preparing pre-service social studies teachers in Taiwan. Required credit hours and elective coursework are clearly listed from its issued policies. Inevitably, it seems much easier for the most schools with teacher education programs to follow suit the requirements issued by the MOE even though MOE agreed for individual schools to provide more options for pre-service teachers’ preparations and allowed individual schools to have their own elective courses based on the available resources and expertise in different schools. Factors
associated with this category included: 1) education policies issued from the government, 2) the existing educational system, 3) the requirements of becoming certified teachers, and 4) the government educational priorities constrain the implementation of global education.

The forth category is “Time constraints.” The pre-service teacher participants reported insufficient time in classroom teaching. Specific factors related to this category included: 1) the distribution of time focused on finishing up coursework requirements, 2) insufficient time to teach global education related courses and 3) the pressure of finishing coursework requirements on time.

The fifth category is the “Examination/test system.” The pre-service teacher participants reported that the teacher certification examination lead the design of the existing curricula in teacher education programs. The specific factor is that the curriculum design focused on passing the certification examination in order to become certified teachers.

The sixth category is “Teaching materials” which included: 1) the content of the teaching materials, 2) the limitation of the teaching materials used in teacher education programs and 3) the insufficient teaching materials related to global education.

“Language training/ constraints” is the seventh category which included: 1) the constraints of different language and 2) insufficient language training. The last category is “Insufficient resources” with a concern of insufficient funding.
Generally speaking, the eight categories emerged from the survey results of the pre-service teacher participants were all related to policies issued by the MOE. The teacher education programs designed and organized their curriculum based on coursework requirements of the MOE. Teacher/faculty arrangement is followed by the basic requirement of setting a teacher education program. Required credit hours and limited time duration of completing the required coursework in teacher education programs were all set by the MOE, as well. The pre-service teachers’ certification examinations forced the organization of the teaching materials and contents to mainly focus on passing the exam. Therefore, it is not surprising that there were a couple of pre-service teacher participants suggested that teacher education programs paid more attention to global education. An easy and quick approach is to make global education as an examination requirement to become certified teachers. In order for pre-service teachers to become certified teachers, language training and resources of global education are not required from the MOE; therefore, it is understandable that these two factors do not attract too much attention from the teacher education programs.

Research Question 3b) What barriers (or potential barriers) in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do university faculty and leaders identify?

The researcher believed that faculty members have more knowledge and understanding in answering this research question because the faculty participants have experiences in teaching and performing administrative work in teacher education programs in Taiwan. Therefore, as listed on the faculty survey, there are three major
questions that were designed to collect data from the faculty to answer this research question. These three questions included: 1) Overall, do the mandated educational policies for the teacher education program from the Ministry of Education (MOE) SUPPORT or CONSTRAIN the implementation of global education, 2) What factors SUPPORT the implementation of global education from the existing courses provided by the teacher education program, and 3) What factors CONSTRAIN the implementation of global education from the existing courses provided by the teacher education program? How to overcome these constraints?

The result as shown in Table 4.27 shows that four (36.4%) of the faculty participants reported “Support,” three (27.3%) reported “Constrain,” and one (9.0%) reported “Neither Supports nor Constrains.”

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>4</td>
<td>36.4</td>
</tr>
<tr>
<td>Constrain</td>
<td>3</td>
<td>27.3</td>
</tr>
<tr>
<td>Neither Support nor Constrain</td>
<td>1</td>
<td>9.0</td>
</tr>
<tr>
<td>Missing Data</td>
<td>3</td>
<td>27.3</td>
</tr>
</tbody>
</table>

Table 4.27: The Frequency and Percentage Regarding Whether the Mandated Educational Policies for Teacher Education Programs from the MOE “Supports” or “Constrains” the Implementation of Global Education (n=11)

Based on the survey result of the faculty participants, the most influential factor that constrains the development of global education in teacher education programs is the MOE mandated policy that set the requirements for courses and credit
hours for pre-service teachers. The faculty participants also indicated having insufficient class hours and professional teachers in related areas.

Open-ended survey questions asked the faculty participants to report the factors that related to both MOE policies and the existing courses in teacher education programs that constrained the implementation of global education. There is one thing worth noting regarding their responses. The concern of the required credit hours issued by the MOE was reported five times by the faculty participants. Specific information associated with this category included: 1) the low requirement of credit hours for pre-service teachers, 2) the requirements for cultivating students capabilities were not specified in the MOE policies, 3) the credit hour requirements constrained the development of pre-service teachers’ worldview and abilities and 4) more emphasis should be put on adding accredited subjects related to global education.

Suggestions to overcome the factors that constrained the implementation of global education in teacher education programs were reported by the faculty participants, as well. These two reported suggestions included: 1) to add more global education-related courses to the MOE identified lists and 2) to ask the MOE to provide more funding in order to hire more teacher educators.

The faculty participants also reported the insufficient number of professional teachers in global education constrained the implementation of global education. Teachers’ specialty in teacher education programs was reported to be another constraining factor. Funding issues in regards to hiring more teachers and arranging international activities were also factors that constrained the implementation of global
education in the existing courses provided by teacher education programs. Time constraints as the faculty indicated, were difficult to overcome as well.

The survey result for this research question was organized into two categories: MOE policies and curriculum. “Insufficient number of teacher educators” was reported from the standpoint of both categories. This result seemed understandable because the MOE policies and existing curricula provided by teacher education programs sometimes overlapped. Essentially, individual teacher education program designed its teacher education coursework based on the requirement of MOE in order to meet the criteria as a certified institution that provides coursework and training for pre-service teachers and further to prepare for the yearly evaluations of teacher education programs.

In terms of the concern with regards to teacher educators possessing insufficient knowledge and expertise in global education, the faculty participants suggested that seminars and conferences should be held for both students and teachers in order to promote the expertise and knowledge of global education among both groups. Table 4.28 presents the survey result for the factors that constrain the implementation of global education in teacher education programs in Taiwan.
Table 4.28: Faculty Perspectives on the Factors that Constrain the Implementation of Global Education in Teacher Education Programs in Taiwan

Possible difficulties that will encounter for the teacher education programs if offering more courses that prepared pre-service social studies teacher to teach global education in the future were reported by the faculty participants. A total of 10 possible difficulties were reported and were organized into six categories based on the frequency of each reported difficulty. These six categories included: 1) The limitation of the required credit hours, 2) Insufficient number of teacher educators with expertise in global education, 3) The constraints of the existing curriculum, 4) Adding more
burden of the coursework to the pre-service teachers, 5) The census among teacher educators concerning whether global education should be included in the existing teacher education programs and 6) Insufficient funding.

The limitation of setting the credit hour requirement is the major concern among the possible difficulties that may be encountered in the teacher education programs. It is not only difficult to add courses to or change existing curricula in teacher education programs; but any course add or change will also add more burden to pre-service teachers having to take more or different courses. One faculty then suggested that teacher education programs should emphasize on the infusion of global education instead of adding more related courses. Table 4.29 lists the survey findings.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The limitation of the required credit hours</td>
<td>5 times</td>
</tr>
<tr>
<td>2</td>
<td>Insufficient number of teacher educators with expertise in global education</td>
<td>3 times</td>
</tr>
<tr>
<td>3</td>
<td>The constraints of the existing curriculum of the teacher education program</td>
<td>3 times</td>
</tr>
<tr>
<td>4</td>
<td>Adding more burden of the coursework to the pre-service teachers</td>
<td>3 times</td>
</tr>
<tr>
<td>5</td>
<td>The census among teacher educators in concerned about whether global education should be included into the existing teacher education programs.</td>
<td>1 time</td>
</tr>
<tr>
<td>6</td>
<td>Insufficient funding</td>
<td>1 time</td>
</tr>
</tbody>
</table>

Table 4.29: The Possible Difficulties Regarding Adding More Courses Related to Global Education in the Teacher Education Programs in Taiwan as Reported by Faculty Participants
4.4.1 Summary of Question Three

The factors that constrain the development of global education were reported by the pre-service teacher and faculty participants. Potential barriers were also reported by the faculty participants. Compared to the reported needed lists from the previous research question, the survey results from the pre-service teacher participants are very similar with the most needed factor reported by both the pre-service teacher and faculty participants. “Add related courses” ranked as the most needed in the teacher education programs and the first category “Curriculum” identified here also included the concern with insufficient number of related courses.

Unlike the needed list that ranked “Hire teachers whose specialty is in related areas,” the concerns related to “Teachers’ expertise and preparation” stayed on the second place for the constraining factors. However, the specific information associated with the “Teachers’ expertise and preparation” indicates that there are insufficient numbers of teachers with expertise in global education or related areas.

Teaching methods and materials are included in the “Teachers’ expertise and preparation” category as also reported by the pre-service teacher participants. This result is very similar to the result of needed lists in which the pre-service teacher participants reported the need, “Change the existing teaching materials and pedagogy.”
4.5 Results for Research Question Four

Research Question 4) What formal preparation in content areas related to global education is in the curriculum for secondary social studies pre-service teachers in teacher education programs in Taiwan?

According to the “Teacher Education Law, Article VII,” teacher education includes coursework for pre-service teachers and teacher certification examination. The coursework for pre-service teachers included: 1) general curriculum required by the department the pre-service teachers are enrolled in, 2) professional curriculum, 3) education professional curriculum required by the teacher education programs in cultivating pre-service teachers’ content knowledge of subject matters and specified learning areas and 4) education coursework of teaching practicum.

Not every student enrolled in universities with teacher education programs is eligible to take courses from teacher education programs. In fact, in order to be eligible to take the education professional curriculum, students had to participate in pre-service teacher selection and examination in order to gain admission to teacher education programs.

There are different criteria in different universities in order for students to be admitted as pre-service teachers in teacher education programs. Grade point average (GPA) is one of the major requirements. A total of 16 (94.12%) universities required students’ GPA to determine whether students are eligible for admissions to become
candidates in teacher education programs. Students’ Grade on good moral character\textsuperscript{17} is another criterion schools use to determine student eligibility for admission. The major test forms required for all eligible students to gain teacher education program admission include: 1) paper-pencil test and 2) interview. There were a total of 11 (64.71\%) universities that required students to take both the paper-pencil test and interview in order to be admitting to teacher education programs in Taiwan. Fifteen (54.55\%) universities required students to do the interview. Table 4.30 presents the information on the criteria and types of tests required by universities for student admission into teacher education programs.

<table>
<thead>
<tr>
<th>Criteria for eligibility</th>
<th>Total Universities</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPA</td>
<td>16</td>
<td>94.12</td>
</tr>
<tr>
<td>Grade on Behavior</td>
<td>10</td>
<td>36.36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Types of Tests</th>
<th>Total Universities</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper-pencil Test</td>
<td>13</td>
<td>76.47</td>
</tr>
<tr>
<td>Interview</td>
<td>15</td>
<td>88.24</td>
</tr>
<tr>
<td>Both Paper-pencil test</td>
<td>11</td>
<td>64.71</td>
</tr>
<tr>
<td>and Interview</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.30: The Criteria and Types of Tests Required by Universities with Teacher Education Programs (n=17)

\textsuperscript{17} “Grade on good moral character” is the grade of the daily performance of students’ behavior. Instead of using the Grade on behavior as a single criteria for determining students’ eligibility in gaining teacher education program admission, some universities also require students to have no illegal convictions which is very similar to the background check requirement for students who want to be teachers in the United States.
The education professional curriculum is the major focus of this study. Reasons that explain why this study focused on the education profession curriculum included: 1) students who are interested in becoming certified teachers have to gain admission in order to participate in this curriculum, 2) this education professional curriculum for pre-service teachers is what we called the “teacher education program,” and 3) all candidates are required to take at least 26 credit hours required from teacher education programs and was issued by the MOE, no matter what majors or fields of study the pre-service teachers come from or what subject or learning areas they will have to teach after they become certified teachers.

According to the “Teacher Education Law Enforcement Rules,” the teacher education program includes education professional curriculum and student teaching practicum courses. The education professional curriculum includes at least 26 credit hours coursework for all teachers-to-be. The breakdown of these 26 credit hours is as follows: 1) 14 credit hours of required subjects/courses and 2) 12 credit hours of elective subjects/courses.

The 14 credit-hour required courses issued by the MOE include: 1) education foundation courses for four credit hours, 2) education methodology courses for six credit hours and 3) teaching practicum courses for four credit hours.

There are four courses available for education foundation courses and each course is equivalent to two credit hours. These four education foundation courses include: 1) Educational Psychology, 2) Philosophy of Education, 3) Educational Sociology and 4) Introduction of Education. There are six different courses to choose
from the education methodology courses and each course is two credit hours. These six courses include: 1) Principles of Instruction, 2) Classroom Management, 3) Educational Testing and Evaluation, 4) Instructional Media and Practice, 5) Curriculum Development and Design and 6) Counseling Theory and Practice. There are only two courses available in the category of teaching practicum courses. Both courses are required and include 1) Teaching Practicum: Subject/Subject in Social Studies, and 2) Teaching Practicum of Subject/Learning Area. Table 4.31 presents the list of required courses and corresponding credit hours for teacher education programs in Taiwan.

---

18 Possible subjects include: History, Geography, and Civic.
<table>
<thead>
<tr>
<th>I. Education Foundation Courses</th>
<th>Credit Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Psychology</td>
<td>2</td>
<td>Take at least four credit hours</td>
</tr>
<tr>
<td>Philosophy of Education</td>
<td>2</td>
<td>Take at least two courses out of total four courses</td>
</tr>
<tr>
<td>Education Sociology</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Introduction of Education</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

| II. Education Methodology Courses              |              |                                               |
| Instructional Theories                        | 2            | Take at least six credit hours                |
| Classroom Management                          | 2            | Take at least three courses out of six courses |
| Education Testing and Evaluation              | 2            |                                               |
| Instructional Media & Practice                | 2            |                                               |
| Curriculum Development & Design               | 2            |                                               |
| Counseling Theories & Guidance                | 2            |                                               |

| III. Teaching Practicum                       |              |                                               |
| Teaching Practicum: Subject/ Subject in Social Studies | 2 | Required                                      |
| Teaching Practicum of Subject/Social Studies  | 2            | Required                                      |

Table 4.31: The List of Required Courses for the Teacher Education Program

The credit hour requirement for elective courses for pre-service secondary social studies teachers is at least 12; these credit hours correspond to all the available elective courses provided by their respective teacher education programs. Available
courses related to these 12 credit hours were provided and designed by individual universities based on their philosophy of teacher education, available resources, and individual university characteristics. Moreover, individual universities are allowed to decide on specific credit hours for each offered course. However, all courses designed and offered by individual universities have to be approved by the MOE.


4.5.1 Courses Help to Develop a Global Worldview or Perspective

Five survey questions were designed to answer the following research questions. These five questions include: 1) *Which course helps you the most in developing a global worldview or perspective from those you have been taken*
(INCLUDE this semester) from the teacher education program, 2) Please write down the COURSES provided by the teacher education program that will help pre-service social studies teachers to develop a global worldview or perspective, 3a) How many courses have you taken (INCLUDE this semester) from the teacher education program that discuss global issues, conditions, or development and 3b) How many of these courses that you have taken are **REQUIRED** courses, 4a) How many courses have you taken (INCLUDE this semester) from the teacher education program that introduce different countries, cultures or people and 4b) How many of these courses that you have taken are **REQUIRED** courses, and 5a) How many courses have you taken (INCLUDE this semester) from the teacher education program that teach you global connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe and 5b) How many of these courses that you have taken are **REQUIRED** courses?

A total of 46 different courses were reported by the pre-service teacher participants to have helped them to develop a global worldview or perspective. Eighty-three (30.2%) of the pre-service teacher participants reported none. Based on the frequency of each course as being reported by the pre-service teacher participants, the rank of each course shows as the following is shown in Table 4.32 as follows: 1) Multicultural Education and Education Sociology, 2) Civic Education, 3) Cultural Anthropology, 4) Teaching Practicum of Civic Education, 5) Introduction of Education and Philosophy of Education, 6) World Geography and Introduction of Social Studies Learning Area, 7) Education of Environmental Protection, Education
Currents of the Modern Age and Human Rights Education, and 8) Environmental Education, Instructional Theories, Comparative Education, Teaching Practicum of Geography and Educational Psychology.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Course Title</th>
<th>Frequency</th>
<th>%</th>
<th>Required (R) or Elected (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Multicultural Education</td>
<td>19</td>
<td>6.9</td>
<td>E</td>
</tr>
<tr>
<td>1</td>
<td>Education Sociology</td>
<td>19</td>
<td>6.9</td>
<td>R</td>
</tr>
<tr>
<td>3</td>
<td>Civic Education</td>
<td>9</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Cultural Anthropology</td>
<td>8</td>
<td>2.9</td>
<td>E</td>
</tr>
<tr>
<td>5</td>
<td>Teaching Practicum of Civic Education</td>
<td>7</td>
<td>2.5</td>
<td>R</td>
</tr>
<tr>
<td>6</td>
<td>Introduction of Education</td>
<td>6</td>
<td>2.2</td>
<td>R</td>
</tr>
<tr>
<td>6</td>
<td>Philosophy of Education</td>
<td>6</td>
<td>2.2</td>
<td>R</td>
</tr>
<tr>
<td>8</td>
<td>World Geography</td>
<td>5</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Introduction of Social Studies Learning Area</td>
<td>5</td>
<td>1.8</td>
<td>R</td>
</tr>
<tr>
<td>10</td>
<td>Education of Environmental Protection</td>
<td>4</td>
<td>1.5</td>
<td>E</td>
</tr>
<tr>
<td>11</td>
<td>Educational Currents of the Modern Age</td>
<td>4</td>
<td>1.5</td>
<td>E</td>
</tr>
<tr>
<td>12</td>
<td>Human Rights Education</td>
<td>4</td>
<td>1.5</td>
<td>E</td>
</tr>
<tr>
<td>13</td>
<td>Environmental Education</td>
<td>3</td>
<td>1.1</td>
<td>E</td>
</tr>
<tr>
<td>13</td>
<td>Instructional Theories</td>
<td>3</td>
<td>1.1</td>
<td>R</td>
</tr>
<tr>
<td>13</td>
<td>Comparative Education</td>
<td>3</td>
<td>1.1</td>
<td>E</td>
</tr>
<tr>
<td>13</td>
<td>Teaching Practicum of Geography</td>
<td>3</td>
<td>1.1</td>
<td>R</td>
</tr>
<tr>
<td>13</td>
<td>Educational Psychology</td>
<td>3</td>
<td>1.1</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td><strong>Total 17 Courses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>R=8; E=7</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.32: Courses that Helped Pre-service Teacher Participants in Developing a Global Worldview or Perspective

Note: Civic Education and World Geography are not included on the MOE issued course list for the teacher education programs.
The second aforementioned survey question asked the pre-service teacher participants to list the available courses provided by their teacher education programs. The survey results came from not only the pre-service teacher experience with taking courses in teacher education programs but also from their own acknowledgment and understanding of the available courses related to global education provided by the teacher education programs they attend. The latter, again, explained why this study planned to focus on the pre-service teacher participants who had been enrolled in teacher education programs for more than one year.

4.5.2 Courses that will Help to Develop a Global Worldview or Perspective

Survey Question: Please write down the COURSES provided by the teacher education program that will help pre-service social studies teachers to develop a global worldview or perspective.

This survey question intended to collect multiple answers. The researcher assumed that universities with teacher education programs would have more than one course available that helped or will help pre-service social studies teachers to develop a global worldview or perspective. A total of 64 different courses were reported by the pre-service teacher participants to be helpful.

Thirty-nine (14.2%) of the pre-service teacher participants reported “Educational Sociology” to be helpful, and 34 (12.4%) reported “Multicultural Education.” The ranked 1st and 2nd courses are very similar to the previous survey result which showed Multicultural Education and Education Sociology as both number one courses to have helped them the most in developing a global worldview or
perspective as reported by the pre-service teacher participants. “Philosophy of Education,” “Introduction of Education,” and “Civic Education,” ranked 3rd, 4th, and 5th and were reported by 16 (5.8%), 15 (5.5%), 12 (4.4%) participants, respectively, Table 4.33 shows the survey results.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Course Title</th>
<th>n</th>
<th>%</th>
<th>Required or Elected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Education Sociology</td>
<td>39</td>
<td>14.2</td>
<td>R</td>
</tr>
<tr>
<td>2</td>
<td>Multicultural Education</td>
<td>34</td>
<td>12.4</td>
<td>E</td>
</tr>
<tr>
<td>3</td>
<td>Philosophy of Education</td>
<td>16</td>
<td>5.8</td>
<td>R</td>
</tr>
<tr>
<td>4</td>
<td>Introduction of Education</td>
<td>15</td>
<td>5.5</td>
<td>R</td>
</tr>
<tr>
<td>5</td>
<td>Civic Education</td>
<td>12</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Educational Currents of the Modern Age</td>
<td>11</td>
<td>4.0</td>
<td>E</td>
</tr>
<tr>
<td>6</td>
<td>Comparative Education</td>
<td>11</td>
<td>4.0</td>
<td>E</td>
</tr>
<tr>
<td>8</td>
<td>Environmental Education</td>
<td>10</td>
<td>3.6</td>
<td>E</td>
</tr>
<tr>
<td>9</td>
<td>Cultural Anthropology</td>
<td>8</td>
<td>2.9</td>
<td>E</td>
</tr>
<tr>
<td>9</td>
<td>Introduction of Social Studies</td>
<td>6</td>
<td>2.2</td>
<td>R</td>
</tr>
<tr>
<td>11</td>
<td>World Geography</td>
<td>6</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Educational Psychology</td>
<td>6</td>
<td>2.2</td>
<td>R</td>
</tr>
<tr>
<td>11</td>
<td>Educational Administration</td>
<td>6</td>
<td>2.2</td>
<td>E</td>
</tr>
<tr>
<td>14</td>
<td>Human Rights Education</td>
<td>5</td>
<td>1.8</td>
<td>E</td>
</tr>
</tbody>
</table>

Table 4.33: Courses that will Help Pre-service Social Studies Teacher to Develop a Global Worldview or Perspective (n=275)

4.5.3 Review of Course Syllabi

Course syllabi were reviewed in order to have a better understanding of the taught content and pedagogical knowledge related to global education in the aforementioned courses reported by the pre-service teacher participants. Topics related
to global education were covered in Education Sociology courses such as equity of education, multicultural education, stereotypes, formal and hidden curriculum, ideology and debate of policies, education for foreign spouses and new Taiwanese, social changes and education, social stratification and education, social problems and education, globalization, and education reform in globalization. Education Sociology is one of the required education foundation courses and ranked as the second course that helped students in developing a global worldview or perspective. Education Sociology also ranked as the number one course that will help pre-service secondary social studies teachers in developing a global worldview or perspective. Teaching methods applied in Education Sociology classes included teacher lectures, large and small group discussions and debates. One of the course syllabi indicated that students would debate the topics of globalization, knowledge economy and education, and local/globalization. However, the exact topics for the debate and how the debate was organized were not specified in order to deliver the previously mentioned contents.

The second set of reviewed course syllabi was for Educational Psychology classes. Topics related to global education were covered including the cultural impacts of teaching and learning and the multicultural differences. Pedagogies applied in this course including lectures, discussions, multi-media and practicing teaching.

The third set of reviewed course syllabi was for The Principles of Teaching classes. The Principles of Teaching is one of the required education method courses. According to the course syllabi, one instructor planned to teach the course contents by lectures and discussions. Students were divided into small groups to reflect and share
their experiences, to discuss important issues and topics, to visit teachers, to design lesson plans based on the teaching principles they learn from the class, and to practice teaching in the classroom. Lectures, discussions, asking questions, role plays, small group teaching, cooperative teaching and learning and problem solving were all included in this course. Another instructor indicated that the observation and classroom visits were included in the course and the purposes for this education method course were to assist students to master different teaching pedagogies and to cultivate students with reflective habits.

Topics related to global education were also covered in the Classroom Management course which is one of the required education method courses. However, the pre-service teacher participants did not report Classroom Management as one of the courses that helped to or will help them to develop a global worldview or perspective. Topics of communication and counseling between teachers and parents of new immigrants were listed on the syllabus. Teaching methods included lectures, discussions, small group presentations, role plays, case study, and interviews.

There were no global education related topics were included in Educational Measurement and Evaluation courses from the reviewed course syllabi. These findings echoed with the research results reported by the pre-service teacher participants that they did not report Education Measurement and Evaluation as one of the courses that helped or will help them to develop a global worldview or perspective.

One thing worth noting. Not every teacher education program that participated in this study had its course syllabi available on-line. The previously reviewed course
syllabi were based on those available syllabi on-line, therefore, could not represent all the courses provided by the participating teacher education programs.

4.5.4 Summary of Question Four

Individual universities have their own criteria for determining and admitting students into their teacher education programs. Most (94.12%) universities required students’ GPA and ten (36.36%) required students’ grade on good moral conduct in determining whether students are eligible to apply for teacher education programs. Types of tests required for eligible students to gain admission include: 1) paper-pencil test, 2) interview and 3) both paper-pencil test and interview. Interviews were required by 15 (88.24%) universities.

The list of required courses from the MOE indicated that cultivating education professional knowledge of the pre-service teachers was the major focus of teacher education programs. Although limited, there were elective courses such as Multicultural Education, Human Rights Education, Environmental Education, Gender Education and others related to global education. Without the enforcement of required courses, there is no guarantee that the pre-service teachers will take advantage of these available elective courses in order to become effective global education teachers.

The result from the inquiry on which courses helped the pre-service teacher participants in developing a global worldview or perspective showed similarities with the result on which courses will help them to develop a global worldview or perspective. The purpose of these two survey questions was to investigate the pre-
service teacher experiences with taking courses related to global education and to find out whether there are more related courses available in teacher education programs.

The review of course syllabi supported the previous research findings reported by the pre-service teacher participants. Topics and issues related to global education were covered in both the required courses such as education foundation courses, education methods courses, and the elective courses provided by teacher education programs. However, the previously reviewed syllabi could not represent all courses provided by the participating teacher education programs because not all the course syllabi were collected and reviewed.

4.6 Research Question Five

Research Question 5) What differences do the findings of the four previous research questions and the literature in global education identify in order to prepare pre-service teachers to teach global education?

As stated in Chapter two and based on the literature review, there are five important aspects that need to be addressed in order to better prepare pre-service social studies teachers to teach global education. These five aspects include: 1) conceptualizing global education, 2) teachers’ content knowledge, 3) teachers’ pedagogical knowledge, 4) reflective teaching, and 5) cross-cultural experiences. By the same token, these five important aspects are essential steps and guidelines in developing an effective and comprehensive program for teacher education for global education.
The following are also important guidelines to consider when setting up a teacher education program for global education. First, the conceptualization of global education includes its rationale, program goals, and its definition (Begler, 1993; Merryfield, 1997). This planned program then has to have a plan for pre-service teachers to 1) acquire the essential content knowledge, 2) “explicitly address the relationship between the content objectives of global education and the instructional processes necessary to achieve those objectives” and 3) cultivate the pre-service teachers with pedagogical knowledge and skills in order to teach those needed contents (Begler, 1993, p.19).

Reflective learning and teaching and arranging cross-cultural experiences are important aspects that better prepare pre-service social studies teachers to teach global education. These two learning activities will allow and help the prospective teachers to reflect on their own values, attitudes and thinking and to learn multiple perspectives. As Becker (1982) argued, teachers’ values and attitudes hold the final analysis of global education that will determine whether global education will be implemented in their classrooms. Additionally, according to Becker (1982), “The teacher’s values alone with his or her knowledge of the subject area of, available materials and techniques largely shape the type of experiences students will have in the classroom” (p.229).

Regarding conceptualizing global education, global education was not a subject matter or a course title that was included on the list of the 26 credit hour course requirements issued from the MOE. Since global education was not a required course
or subject matter from the MOE, it is unlikely that the teacher education programs will emphasize conceptualizing the meaning and purpose of global education.

In terms of teachers’ content knowledge related to global education, both the pre-service teacher and faculty participants reported that there were related issues and topics taught in different courses in teacher education programs. The review of some course syllabi supported the previous findings. Topics and issues such as equity of education, multicultural education, stereotypes, education for foreign spouses and new Taiwanese, social changes, problems and education, education reform and globalization, and so on were taught and discussed in some required courses provided by teacher education programs. Elective courses such as Multicultural Education, Multicultural Development and Environmental Education covered and discussed more issues and topics related to global education such as respecting students’ multicultural backgrounds, cross-cultural studies, multicultural and global perspectives, the interaction among different countries, communication among different ethnic groups, global issues of environmental protection, globalization and economy ethics, and so on. Even though elective courses covered and discussed more issues and topics related to global education, there was no guarantee that the pre-service secondary social studies teachers would take advantage of these opportunities.

From the previously mentioned courses, different teaching methods were applied in order to deliver the course content. Lectures, small and large group discussions, cooperative teaching and learning, debates, observations, interviews, practice teaching, reflection of personal experiences, and multi-media were listed on
the course syllabi. However, specific teaching methods that were taught and delivered global education content were not specified. One of the syllabi listed the topics of globalization, knowledge economy and education, localization and globalization with debate. Other reviewed course syllabi only listed different teaching methods that would apply in those courses, but did not indicate which pedagogy would apply to which topics that were covered in the course.

Field trips and classroom observations were applied in different courses and were reported by the pre-service teacher participants. Pre-service teacher participants in one participating teacher education program also reported that the exchange program with a different country was available for the pre-service teachers. Reflective teaching and learning was also a focus of the course content.

Generally speaking, the review of the course syllabi indicated that topics and issues related to global education were taught in required courses provided by different teacher education programs. However, the emphasis of topics related to global education depended heavily on individual teachers. That is, even for the same required courses, if provided by different teacher education programs or taught by different teachers, the course content covered in the course was different. However, not every participating teacher education program had its course syllabi available on-line; therefore, these research results cannot generalized to all the courses provided by teacher education programs in Taiwan.

The statements of individual programs’ goals are listed on their programs’ websites. The overview and descriptions of the coursework are also available online.
Not surprisingly, the 26 credit hours of coursework requirement issued by the MOE leads to the implementation of the teacher education programs in Taiwan despite each program having its own different goals. Even though individual programs have the freedom to design and organize their own courses based on the expertise of their professionals and the available resources, the existence of significant differences of the learning activities and the available courses provided by each teacher education program is highly unlikely.

Subject matters in regards to the teacher professional development provided by individual departments might have more courses with content and perspectives related to global education. However, this aspect is beyond the research scope because the researcher intended to focus only on the 26 credit hours of required courses provided by and available in teacher education programs but are required by all the pre-service teachers who are enrolled in teacher education programs. Furthermore, the yearly program evaluation plays an important role in shaping the allocation of programs’ resources due to the possible threat of limited student enrollment and enforcing closure.

The survey data form both the pre-service teacher and faculty participants reported that the MOE policies constrained and supported the implementation of global education in teacher education programs in Taiwan. The constraining details as reported by the pre-service teacher participants include: 1) The MOE policies, 2) The existing education system, 3) The requirement of becoming certified teachers, and 4) The educational priorities focused by the MOE. The faculty participants reported their
concerns to be: 1) The low requirement of credit hours for pre-service teachers, 2) The requirement of cultivating students’ capabilities were not specified in the MOE policies and 3) The credit hour requirement constrained the development of pre-service teachers’ worldview and abilities. The faculty participants suggested that more emphasis should be put on adding the accredited subjects related to global education. These two sets of survey data support the previous arguments.
Chapter 5
Findings, Implications, and Recommendations

The purpose of the study was to find out “How well are secondary social studies teachers prepared to teach global education: Pre-service teachers and faculty’s perspectives in the implementation of global education in Taiwan.” Data was collected from survey questionnaires and data analysis. A total of 275 pre-service teachers from 11 schools and 11 faculty members from nine schools took the surveys. Documents were collected from 1) teacher education programs that prepare secondary social studies teachers teach global education; 2) the mandated criteria pertinent to global education for secondary social studies from the MOE in Taiwan; and 3) literature pertinent to preparing pre-service teachers to teach global education.

This chapter is divided into three sections. The first section summarizes and interprets the research findings. The second section presents the implications of the study, and the last section lists the recommendations for future research.

5.1 Summary and Interpretation of Research Findings

Summary of Research Findings

Research Question 1a) How well do secondary social studies pre-service teachers think they are prepared to teach global education?
**Effectiveness**

A total of 179 (65.1%) pre-service teacher participants rated the teacher education programs “Average” and better while 34.9% rated them the opposite. The mean score is 2.83 and the standard deviation is 0.86. If ranked using the possible responses ranging from 1 to 5, the mean score stands between the categories of “Average” and “Below Average” which indicates that the result is closer to but less than “Average.”

A total of 179 (65.1%) of the pre-service teacher participants reported the effectiveness of teacher education programs in preparing pre-service social studies teachers to teach global education to be “Average” and better. The mean score shows the result to be closer but less than “Average.” A total of 189 (68.73%) reported the effectiveness of teacher education programs in helping prepare pre-service teachers to develop a global worldview or perspective to be “Average” and better. The mean score shows the results to be closer to but less than the “Average.” Regarding the effectiveness of teacher education programs in preparing pre-service teachers to teach global interconnectedness, 185 (67.0%) reported “Average” and better.

**Social Studies Standards**

The response on the frequency of faculty mentioning social studies standards showed that 64.5% of the participants reported “Occasionally” and “Very Frequently.” A total of 10.2% reported “Always.” The mean score is slightly above “Occasionally.” A total of 62.2% of the pre-service teacher participants reported “Occasionally,”
“Very Frequently,” and “Always.” The mean score is slightly lower than “Occasionally.”

**Courses Related to Global Education**

A total of 51.6% of the pre-service teacher participants reported that they never took any courses discussing global issues, conditions or development while 48.4% reported that they took at least one or more. A total of 41.1% reported that they never took any courses that introduced different countries, cultures, or people while 58.9% reported that they took at least one or more. A total of 54.2% reported that they never took any courses that taught global connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe while 45.8% reported they took at least one or more. A total of 42.5% reported they never took any courses that dealt with power conflict or discrimination of different countries, people and cultures while 57.5% reported they took at least one or more.

**Pedagogy Learned and Will Apply in the Classes**

The pre-service teacher participants recalled 36 different pedagogies that their teachers used in the classes. Among these, teacher lectures, small group discussions, and the use of multi-media/ technology ranked the 1st, 2nd, and 3rd from the list, respectively.

The pre-service teacher participants reported that there are a total of 33 possible pedagogies that they plan to use in their future classrooms. Among these, the top three pedagogies are teacher lectures, the use of multi-media/technology, and small group discussions.
Attending Seminars and Activities on Different Cultures

A total of 43.6% of the pre-service teacher participants reported that they have never attended any seminars and activities on different cultures. There was a total of 46.2% participants who reported having attended one and more seminars and activities.

Attitudes Toward Global Education

With a mean score of 6.09 (the highest score 7 indicates “Strongly Agree”) for the pre-service teacher participants and a mean score of 6.33 for the faculty participants, and standard deviations of 0.64 and 0.44, respectively, these findings indicate that both the pre-service teacher and faculty participants held positive attitudes toward global education.

Applying Global Education

The survey result shows that the majority (93.3%) of the pre-service teacher participants reported that they will apply global education “Sometimes” and “Very Often” in their future classrooms.

Research Question 1b) How well do university faculty and leaders in Taiwan think secondary social studies pre-service teachers are prepared to teach global education?

Effectiveness

The survey result shows that six (54.5%) of the faculty participants reported the effectiveness of teacher education programs in preparing pre-service social studies teachers to teach global education to be “Above Average” while five (45.05%) faculty participants reported “Average.” With a mean score of 3.55 and the standard deviation of 0.52, these findings indicate that the faculty participants reported the effectiveness
of teacher education programs in preparing pre-service teachers to teach global education as higher than “Average” and closer to “Above Average.”

In terms of participant responses on the effectiveness of teacher education programs in helping pre-service teachers to develop a global worldview or perspective, a total of 63.6% reported “Above Average” and 36.4% reported “Average.” The mean score is slightly higher but very similar to the previous findings of the effectiveness of teacher education programs in preparing pre-service teachers to teach global education.

**Social Studies Standards**

The faculty participants reported mentioning and teaching social studies standards more frequently than what the pre-service teacher participants thought the faculty did. With higher mean scores, the results from the faculty responses indicate that the frequency of mentioning and teaching social standards in classes is very close to “Very Frequently.”

**Available Courses on Global Education**

The faculty participants reported that there are available courses related to global education in teacher education programs. The mean scores for each course ranged from 2.0 to 2.43 and the standard deviations ranged from 1.13 to 1.73. The mean scores of the required courses among these available courses ranged from 0.50 to 1.14. However, the standard deviations indicate very widely distributed numbers.

**Interpretation**

Even though “Average” and “Above Average” ratings were reported by the pre-service teacher and faculty participants regarding to the effectiveness of teacher
education programs in preparing pre-service teachers to teach global education, the results from the inquiry about experience with taking courses related to global education reported by the pre-service teacher participants and the available courses related to global education reported by the faculty participants indicate the opposite. Roughly around a half of the pre-service teacher participants reported that they did not take any courses that discussed or taught global issues and problems, different countries and cultures, global connections and the impact of globalization, and power conflict and discrimination.

“Traditional” pedagogies such as teacher lecture, as Tye (1999) pointed out, played and probably will play a dominant role in delivering content knowledge to pre-service teachers. However, as noted in Chapter two, “progressive” pedagogies such as use of technology/multi-media and cooperative learning were reported by the pre-service teachers to have been learned in their classes and will be applied in their future classrooms (Tye, 1999).

Attending seminars and activities of different cultures as supplementary to the insufficient coursework related to global education did not help much. A total of 43.6% of the pre-service teacher participants reported that they did not attend any seminars and activities related to global education. There might be different reasons to explain this result, one of which is that the teacher education programs did not offer these seminars and activities. The other reason might be that the pre-service teachers did not have information about these seminars or activities or simply did not want to attend them.
Both the pre-service teacher and the faculty participants had positive attitudes toward global education. These findings help to explain why the majority of the pre-service teachers reported that they will apply global education in their future classrooms.

**Summary of Research Findings**

*Research Question 2a) What needs in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers identify?*

The pre-service teacher participants reported “Add related courses” as the most needed in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan. “Changing the existing teaching materials,” “Hire teachers whose specialty is in related areas,” “Globalize the existing curriculum,” “Hold related seminars and conferences,” “Add and improve related resources, books, and equipment,” “Arrange exchange programs with different schools of different countries” and “Others” ranked second to the eighth, respectively.

A total of seven categories emerged from the lists of 115 factors that were collected from the open-ended survey questions. These seven categories include: 1) The impact of globalization, 2) Curriculum, 3) Teachers’ expertise and preparation, 4) The improvement of technology, 5) Government policies, 6) International perspectives, and 7) Course contents and teaching materials.
Research Question 2b) What needs in training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do university faculty and leaders identify?

The result shows “Add related courses,” “Change the existing teaching materials and pedagogy,” “Hold related seminars and conferences,” “Hire teachers whose specialty is in related area,” “Add and improve related resources, books, and equipment,” “Globalize the existing curriculum,” “Arrange exchange programs with different schools of different countries” and “Others” ranked as the most to the least needed factors, respectively. Furthermore, the reported data for the open-ended survey questions were organized in two major categories: MOE policies and curriculum.

Interpretation

“Adding related courses” was reported by both of the pre-service teacher and faculty participants as the number one needed factor in the teacher education program in order to prepare pre-service social studies teachers to teach global education in their future classrooms. These findings echo the findings from the first research question as nearly half of the pre-service teacher participants reported that they did not take any courses related to global education. Furthermore, the faculty participants also reported that the available courses related to global education are very limited. Moreover, the results collected from the open-ended survey questions provided more detailed factors that support the implementation of global education and these supporting factors can also be considered as needed factors that support the implementation of global education.
**Summary of Research Findings**

*Research Question 3a)* What barriers (or potential barriers) in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do secondary social studies pre-service teachers identify?

A total of eight categories emerged from the survey data; these included 1) Curriculum, 2) Teachers’ expertise and preparation, 3) Government policies, 4) Time constraints, 5) Examination/test system, 6) Teaching materials, 7) Language training/constraints, and 8) Insufficient resources.

*Research Question 3b)* What barriers (or potential barriers) in the training of secondary social studies teachers to teach global education in teacher education programs in Taiwan do university faculty and leaders identify?

The faculty participants reported that the most influential factor that constrains the development of global education in teacher education programs is the MOE mandated policy that sets the requirements for courses and credit hours for pre-service teachers.

The results for the open-ended survey questions indicate that the factors that related to both MOE policies and the existing courses in teacher education programs constrained the implementation of global education. Among these constraining factors, “the concern of the required credit hours issued from the MOE” was reported five times by the faculty participants.
Interpretation

The pre-service teacher participants reported that there are fewer available courses related to global education in their respective teacher education programs. This finding supports the findings for research question two in which adding related courses was indicated by both the pre-service teacher and faculty participants to be the most needed factor in teacher education programs. The pre-service teacher participants also reported that the curriculum design and focus of teacher education programs is to pass the exam, therefore, constraining the implementation of global education as global education is not considered to be one of the required courses tested in the teacher certification exam.

Summary of Research Findings

Research Question 4) What formal preparation in content areas related to global education is in the curriculum for secondary social studies pre-service teachers in teacher education programs in Taiwan?

According to the “Teacher Education Law Enforcement Rules,” the teacher education program, the focus of this study, includes education professional curriculum and student teaching practicum courses. The education professional curriculum includes at least 26 credit hours of coursework for all teachers-to-be. The distribution of these 26 credit hours is as follows: 1) 14 credit hours for the required subjects/courses and 2) 12 credit hours for the elective subjects/courses.
The 14 credit-hour required courses established by the MOE include: 1) education foundation courses for four credit hours, 2) education methodology courses for six credit hours and 3) courses of teaching practicum for four credit hours.

There are courses related to global education from the elective courses list issued by the MOE; these courses include: Multicultural Education, Human Rights Education, Environmental Education, Gender Education and so forth. The pre-service teachers are required to take at least 12 credit hours of these elective courses in order to meet the basic requirement for completing pre-service teacher coursework.

Review of course syllabi indicated that issues and topics related to global education were covered in both the required and elective courses. However, these findings cannot be generalized to all courses provided by the participating teacher education programs because not every course syllabi were reviewed. Some of the course syllabi were not available on-line; therefore, the researcher did not have access to get those data.

**Interpretation**

Courses related to global education are available as required and elective courses as reported by the pre-service teacher participants. Required courses in teacher education programs focus on education foundation courses, methodology and teaching practicum. Responses to the question regarding which courses helped the pre-service teacher participants in developing a global worldview or perspective showed similarities with participant responses on courses that helped them to develop a global worldview or perspective. However, because elective courses are chosen by individual
students based on availability in teacher education programs and students’ interests, there is no guarantee that the pre-service teachers will take the opportunity of taking global education related courses available to them.

**Summary of Research Findings**

*Research Question 5) What differences do the findings of the four previous research questions and the literature in global education identify in order to prepare pre-service teachers to teach global education?*

As noted in the Literature Review chapter, five critical elements need to be considered in order to prepare pre-service social studies teachers to teach global education. These five elements include: 1) conceptualizing global education, 2) teachers’ content knowledge, 3) teachers’ pedagogical knowledge, 4) reflective teaching, and 5) cross-cultural experiences.

In terms of teacher education programs in Taiwan, statements of the programs’ goals are listed on most of the programs’ websites. The overview and descriptions of the coursework are also available online. However, the 26 credit hour of coursework requirement issued by the MOE led the implementation of the teacher education programs in Taiwan even if each program has its own different goals.

**Interpretation**

As a centralized government, this result is not surprising. The implementation of teacher education programs is heavily influenced by a top-down decision and policy-making approach even if individual schools envision different programmatic goals. As reported by both of the pre-service teacher and faculty participants,
government policies play both supporting and constraining roles in the implementation of global education in teacher education programs in the country.

One aspect worth noting is that as was reported by both of the pre-service teacher and faculty participants, not to mention as asserted by some scholars such as Hong (2003), Kao (2002, 2005), Cheng & Perng (2007), Song & Chen (2008), the MOE recognize the impacts of globalization and the importance of cultivating students with international/global worldview or perspective. One piece of evidence for this recognition is that the education purposes now listed on the “Educational Fundamental Act” includes “to cultivate modern citizens…, and understandings of and concerns for different countries, ethnic groups, sexes, religions and cultures” (p.1).

5.2 Implications

As noted in Chapter two, it is important for education programs with a global education focus to 1) have a “clear conceptualization of global education,” 2) have a comprehensive plan to address the needed content knowledge in relation to the objectives of global education and 3) have the “instructional processes necessary to achieve those objectives” (Begler, 1993, p.39).

By the same token, teacher education programs in Taiwan need to have a clear understanding of the meaning of “the cultivating of international/global worldview and perspective” for individual teacher education programs as the objectives based on the available resources and characteristics of each school. Teacher education programs then have to set up goals to guide their curriculum and select contents and organize instructional priorities in order to achieve their goals (Kniep, 1987).
In terms of having a comprehensive plan to address the needed content knowledge, the research found out that around 50% of the pre-service social studies teacher participants did not take any courses that 1) discussed global issues, conditions or development, 2) introduced different countries, cultures or people, 3) taught global connections, the impacts of globalization on local communities, or the interconnectedness between the local and the globe, or 4) dealt with power conflict, discrimination of different countries, people and cultures. Furthermore, more than 61% of the pre-service social studies teachers reported that there were no required courses in teacher education programs that discussed or taught the above mentioned topics. The faculty participants also reported that each of the previously mentioned topics only had around one course available in teacher education programs.

Based on these research findings, teacher education programs should have more courses available. It is more desirable to include these courses on the required course list for all pre-service secondary social studies teachers. However, the policies should be made from the top down by the MOE in order to make this plan feasible, to be followed by different teacher education programs in Taiwan and to better prepare the pre-service secondary social studies teachers to teach global education in the future.

As stated in the Literature Review, “To adequately address questions of content, we must consider them in the context of today’s local, national, and global realities. To be sure, today’s students need to be grounded, ..., in their own history and culture” (Kniep, 1987, p.44). The rationale of this study clearly stated the realities that Taiwanese society has to deal with. These realities include: 1) the increased numbers
of foreign workers and spouses, 2) global warming and the environmental degradation, 3) the continuing growing economy and cultural integration, 4) population change, and 4) tensions among different ethnic groups. Therefore, acquiring knowledge related to global education will be helpful in facing and dealing issues and problems facing in Taiwanese society and will better prepare people for future cooperation that cross national boundaries. Furthermore, the realization of the interconnection between different countries, culture and people is critical in order to better prepare pre-service teachers to teach diverse student populations in the future. It is also important that teacher education programs prepare future leaders to possess sufficient knowledge and to be capable of initiating effective solutions in dealing with the tensions among different ethnic groups. People need not only acknowledge the problems and issues facing by their own countries but also by the entire planet (Kniep, 1987).

However, we should also consider the constraining factors of the implementation of global education in teacher education programs in Taiwan. Changing the existing curriculum is a long-term goal because it is time-consuming and will need to be pursued gradually. The short-term and feasible goals to achieve are to invite guest speakers, hold seminars and plan learning activities related to global education in order to assist the implementation of global education in teacher education programs in Taiwan. Moreover, more incentives should be added in order to encourage pre-service teachers to attend seminars and activities on different cultures because 43.6% of the pre-service teacher participants never attended them.
The survey data showed that the pre-service teacher participants took some courses in related to global education and pedagogical knowledge. However, the content and pedagogical knowledge of the pre-service teacher participants cannot be evaluated solely based on the number of related courses they took and plan to take. Furthermore, course content knowledge related to global education cannot be evaluated only by course titles. The review of course syllabi helped us to have better understanding of the content knowledge and pedagogy taught in the classes.

The survey results from the pre-service teacher participants’ pedagogical knowledge listed only pedagogies they learned and planned to apply in their future teaching. “What and how secondary social studies teachers teach in their classroom” remains unknown because it is not the scope of the study. Therefore, more research is needed to investigate what and how secondary social studies teachers teach in their classrooms in order to get a more comprehensive picture of the impacts and effectiveness of teacher education programs in preparing pre-service secondary social studies teachers to teach global education.

Roughly half of the pre-service teacher participants reported that there are insufficient courses offerings related to and in preparing pre-service teachers to teach global education in the future. One of the possible reasons to explain this finding is that the priorities of teacher education programs in Taiwan are to provide coursework and internship training required by the MOE and to assist pre-service teachers to pass the certification exam. Therefore, even though individual courses related to global education were offered in teacher education programs, providing systematic
coursework and instructional processes in order to prepare pre-service teachers to
teach global education may be difficult to achieve.

Both the pre-service teacher and faculty participants reported “Hiring teacher
educators with expertise in global education” as a needed factor in assisting the
implementation of global education in teacher education programs in Taiwan.
However, the effects of global education will be very limited depending only on the
expertise and preparation of individual teachers without a systematic course plan to
deliver the relevant contents.

Often times, people advocate for the importance of foreign language learning,
especially the learning of English. Taipei, the capital of Taiwan, now requires students
to learn English beginning first grade. From a news report, the secretary of MOE
asked news channels to report more news in English and asked HBO (a movie
company) to provide English captions for all its movies in Taiwan to help students to
learn English. The secretary of MOE pointed out that the modern citizens should have
international/global worldviews or perspectives. However, learning English does not
equal possessing an international/global worldview or perspective. The import aspect
is to understand and respect different cultures (“HBO,” 2010).

Considering the insufficient preparation of pre-service teacher participants in
courses related to global education, and the limited courses available in teacher
education programs, establishing systematic training for pre-service teachers seems
more important. This should include content knowledge, pedagogical skills in order to
deliver relevant content, reflect on the attitude and values of teachers, and cross-
cultural experiences especially for teachers with little or no experiences. The last
element is more critical for pre-service teacher training in Taiwan because of the
location and population in Taiwan. As an island, Taiwan is isolated compared to other
continental countries that are connected with other countries. Regardless, as overseas
tavel is very common for Taiwanese people, arranging overseas travels with an
educational purpose in the form of exchange programs could easily be facilitated.
These programs should include activities that provide opportunities for exchange
students to learn about different cultures and to reflect on their own values. It is not an
easy task, however, but is worth doing.

It is critical that MOE allocates more resources and provides more funding to
assist the implementation of global education in Taiwan. Policy makers, on the other
hand, have to initiate policies that clearly address the currently social, cultural, and
educational needs for teachers and students as stated in Chapter one. The policies
issued by the MOE emphasize the importance of developing a global worldview or
perspective for all students; however, a more comprehensive plan is needed in order to
better prepare students with this ability. Without a systematic training curriculum in
order to cultivate students of global knowledge and to help them to develop a global
worldview or perspective, the effectiveness of teacher education programs will be very
limited.
5.3 Recommendations for Future Research

This study investigated the preparation for pre-service teachers and the implementation of global education in the teacher education programs in Taiwan. Both pre-service teacher and faculty perspectives were collected and analyzed.

More research is needed in helping the Taiwanese people to have better understanding of global education regarding its rationale, purposes and implementation because currently too little research related to global education is available. Moreover, the research can focus on interpreting what global education is and how it can help in cultivating a global worldview or perspective as advocated by some legislators and policy makers in order to provide better solutions in dealing with the current social and education needs in Taiwan.

Research findings that indicated the insufficient coursework related to global education alone are insufficient to persuade policy makers to agree that teacher education programs need a systematic change in their curriculum. It will be helpful to conduct comparative studies of the impacts of global education between teacher education programs with or without comprehensive and systematic plans and course offering because the pre-service teacher participants reported the limited effect of randomly taught global contents. As more and more legislators and policy makers advocate the importance of cultivating a global worldview or perspective for both teachers and students, a more comprehensive and systematic plan in delivering the relevant contents related to global education is needed.
A close review of the course syllabi and classroom observations is recommended for courses that helped or will help the pre-service secondary social studies teachers in developing a global worldview or perspective reported by both the pre-service teacher and faculty participants. In doing so, we will gain knowledge of and will have better understanding of what content knowledge is taught and what teaching methods are applied in delivering and teaching the relevant contents of global education in the real classrooms.

More research is needed in searching for the needed content knowledge related to global education for teacher education programs in Taiwan. Research focuses on investigating what content knowledge is needed and what content knowledge is taught from the existing teaching materials or textbooks. Research can investigate the impacts of civic education in Taiwan with students possessing insufficient knowledge related to global education (Sung & Chen, 2008).

Comparative study of pre-service teachers’ preparation including curriculum, coursework and learning activities in different programs, schools or countries will shed new lights on teacher education programs in Taiwan. The research findings indicated that the priorities of teacher education programs in Taiwan were to provide education professional coursework required by the MOE and therefore constrained the implementation of global education. Comparative research of pre-service teachers’ preparation will provide more facts and data that can apply to and can lead the future educational reform in teacher education programs in Taiwan.
The study can be expanded to conduct a longitude research to investigate the same group of pre-service teacher participants after they become certified teachers. Specific focuses for this study can be to find out whether there exists a relationship of or impact between the pre-service teacher preparation and the real classroom teaching. Research designs for this study can focus on three different aspects including 1) conducting a comparative study for prospective and practicing teachers, 2) focusing on teachers’ content knowledge and 3) focusing on teachers’ pedagogical knowledge.

The study can also be expended by investigating the professional coursework required and provided by Geography, History, and Civic education departments in different universities in Taiwan. As stated in Chapter four, the professional coursework is one of the requirements for pre-service social studies teachers as well only the professional coursework is provided by individual department. By investigating the professional coursework provided by individual programs, more courses related to global education may be explored and the significant differences between the courses offered by teacher education programs and individual department may appear because individual department have more freedom in designing and providing their coursework for students. Furthermore, individual departments may have clearer goals and systematic coursework in preparing students to meet the department goals that are worth investigating.
References


Alger, C. F. (1974). Your city in the world, the world in your city: Discovering the international activities and foreign policies of people, groups and organizations in your community. Columbus, OH: Mershon Center The Ohio State University.


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Merryfield, M. M. (1990). Teaching about the world: Teacher education programs with a global perspective. Columbus: Mershon Center, the Ohio State University.


Zhan, Z. (2003) Jiu nian yu guan she hui xue xi ling yu e cheng gang yao zhi fa zhan [The development of curriculum guides for social studies learning area of Grade one to nine Curriculum]. In B. Huang (Ed.) She Hui Xue Xi Ling Yu Ke Cheng She Ji Yu Jiao Xue Ce Lu. Taipei, Taiwan: Shi Da Publisher.

Zhan, Z. (2003). Jiu nian yi guan ke cheng she hui xue xi ling yu de zhu ti zhou [The thematic strands for social studies learning area og Grade one to nine Curriculum]. In B. Huang (Ed.) She Hui Xue Xi Ling Yu Ke Cheng She Ji Yu Jiao Xue Ce Lu. Taipei, Taiwan: Shi Da Publisher.


Zhang, D. & Ding, Y. (2005). Wo guo shi zi pei yu zhi du de hui guy u qian zhan [The review and outlook of the teacher education systems in Taiwan].


Appendices
Appendix A

Survey for Pre-service Teachers: English Version
Dear students,

I am conducting a research of the implementation of the global education in teacher education programs in Taiwan. I would like to understand your perspectives in regards to this topic. Your opinions are valuable. Please answer the following questions. Thank you for your support and cooperation.

Section I: For each of the following questions, please circle the number that best describes your opinion.

Strongly Disagree = 1, Slightly Disagree = 2, Disagree = 3, Unsure = 4, Slightly Agree = 5, Agree = 6, Strongly Agree = 7

1. It is important that courses offered by the teacher education program emphasize developing a global worldview or perspective.

2. It is important that the teacher education program provide courses to promote the understanding of different cultures and ethnic groups.

3. The understanding of world history and different cultures will benefit your future teaching of social studies’ content.

4. Courses that discuss global issues, conditions and development will help you to develop a global worldview or perspective.

5. Cross-cultural experiences will help you to develop a global worldview or perspective.

6. Applying different teaching methods will promote students’ understanding of social studies content knowledge.
7. Making global connections is one of the important goals for teaching social studies.

GLOBAL EDUCATION “prepares young people to understand and interact within a culturally diverse and globally interconnected world” (Merryfield, 2004, p.1). “It involves learning about those problems cut across national boundaries, and about the interconnectedness of system—ecological, cultural, economic, political, and technological. Global education also “involves perspective taking—seeing things through the eyes and minds of others” (Tye, 1991; 2009, p.4).

8. It is important that the teacher education program prepare teachers to teach global education.

9. Making global connections is one of the benchmarks for social studies. How often do your teachers mention this standard from those courses you have taken (INCLUDE this semester) from the teacher education program.

_______Never
_______Very Rarely
_______Rarely
_______Occasionally
_______Very Frequently
_______Always

10. How often do your teachers teach you how to reach the social studies standards from those courses you have taken (INCLUDE this semester) from the teacher education program.

_______Never
_______Very Rarely
_______Rarely
_______Occasionally
_______Very Frequently
_______Always
11. How effective are the courses offered by the teacher education program in developing a global worldview or perspective?

[ ] Extremely Poor
[ ] Below Average
[ ] Average
[ ] Above Average
[ ] Excellent

12. What is the effectiveness of the teacher education programs in preparing pre-service social studies teachers to teach global interconnectedness?

[ ] Extremely Poor
[ ] Below Average
[ ] Average
[ ] Above Average
[ ] Excellent

13. Overall, what is the effectiveness of the courses offered by the teacher education program to prepare pre-service social studies teachers to teach global education?

[ ] Extremely Poor
[ ] Below Average
[ ] Average
[ ] Above Average
[ ] Excellent

14. After you become a certified teacher, will you infuse global education in your teaching?

[ ] Not at all
[ ] Rarely
[ ] Sometimes
[ ] Very often
[ ] Always
Section II: Please write down the most appropriate answers that best describe your experiences.

1. a) How many courses have you taken (INCLUDE this semester) from the teacher education program that discuss global issues, conditions, or development? b) How many of these courses that you have taken are REQUIRED courses?
   a) ______________
   b) ______________

2. a) How many courses have you taken (INCLUDE this semester) from the teacher education program that introduce different countries, cultures or people? b) How many of these courses that you have taken are REQUIRED courses?
   a) ______________
   b) ______________

3. a) How many courses have you taken (INCLUDE this semester) from the teacher education program that teach you global connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe? b) How many of these courses that you have taken are REQUIRED courses?
   a) ______________
   b) ______________

4. How many courses have you taken (INCLUDE this semester) from the teacher education program that deal with the power conflict or discrimination of different countries, people and cultures? b) How many of these courses that you have taken are REQUIRED courses?
   a) ______________
   b) ______________

5. Which course helps you the most in developing a global worldview or perspective from those you have been taken (INCLUDE this semester) from the teacher education program?
6. a) How many courses have you taken (INCLUDE this semester) from the teacher education program that introduce different pedagogy? b) How many of these courses that you have taken are \textbf{REQUIRED} courses?

   a) ______________

   b) ______________

7. Please recall and list the pedagogy used by your teachers from those courses you have taken (INCLUDE this semester) from the teacher education program?

8. Please write down the \textbf{COURSES} provided by the teacher education program that will help pre-service social studies teachers to develop a global worldview or perspective.

9. Please rate the most needed to the least needed (#8 the most needed; #1 the least needed). Which of the following is the most needed in the teacher education program in order to prepare pre-service social studies teachers to infuse global education in their teaching in the near future?

   ______ Add related courses
   ______ Change the existing teaching materials and pedagogy
   ______ Add and improve related resources, books, and equipment
   ______ Hold related seminars and conferences
   ______ Hire teachers whose specialty is in related areas
   ______ Arrange exchange programs with different schools of different countries
   ______ Globalize the existing curriculum
   ______ Others ____________________________________ Please indicate

10. After you become a certified teacher, what teaching methods do you plan to apply in your classroom?
11. How many times (INCLUDE this semester) have you attended to seminars or activities on different cultures (eg. Guest speakers, films, presentations etc.)

12. How many friends of different cultural or ethnic background do you have?

13. Please indicate what kinds of teaching materials you plan to use after getting your teaching license and rate the most often to the least often (#7 the most; #1 the least) for each one of the teaching materials on the lists.

- Textbooks
- References related to textbooks
- Information from the Internet
- Newspapers and magazines
- Primary resources
- Periodical and research papers
- Others

14. Overall, do the existing courses provided by the teacher education program SUPPORT or CONSTRAIN the implementation of global education?

- Support
- Constrain

15. Please list the factors that “SUPPORT” the implementation of global education from the existing courses provided by the teacher education program?

16. Please list the factors that “CONSTRAIN” the implementation of global education from the existing courses provided by the teacher education program? What are your suggestions regarding how to overcome these constraints?
Section III: Please check the most accurate answer for each of the following questions.

1. Sex: ________Male ________Female

2. Current school level: (Please **Check One** that apply!)

   ________Undergraduate Student
   ________Master Student
   ________Doctoral Student

3. What is your major?

4. What is your current status in teacher education program?

   ________The second year
   ________Teaching interns
   ________Others ____________________ Please indicate

5. How many credit hours (Include this semester) have you finished from teacher education program?

   Finished credit hours for **REQUIRED** courses __________________

   Finished credit hours for **ELECTED** courses __________________

6. How many times have you traveled outside of your country?

7. *If you have been traveled outside of your country, please answer this question. The degree to which traveling abroad has helped you to develop a global worldview or perspective?

   ________Had Great Impact or Help
   ________Had Some Impact or Help
   ________Had No Impact or Help

8. What is the longest period of time you stayed abroad because of traveling, working, or studying?
9. Which of the following influenced you the most in regards to your understanding of global conditions and development or important issues? (Please Check All that apply!)

- News or information from the Internet
- School classes or extracurricular activities
- Issues discussed by your classmates and relatives
- Broadcast or Newspaper
- What you encounter from traveling abroad
- Others

10. Which of the following is the main source for you to get global information? (Please Check All that apply!)

- Internet
- TV
- Radio
- Newspaper
- Periodicals and magazines
- Others

11. How many times in a week do you discuss current issues or politics with others?
Appendix B

Survey for Pre-service Teachers: Chinese Version
各位親愛的同學：

本人正進行“全球教育在各大專院校教育學程中的實施現況調查”，想要瞭解您對於各大專院校師資培育中心實施全球教育的看法。您的意見非常寶貴，請逐題仔細填答，感謝您的支持與合作！

楊曉經 謹啟

第一部分:

填答說明：在下列的題目中，請選擇一個與您的意見最接近的答案。

| 非 | 稍 | 不 | 沒 | 稍 | 同 | 非 | 常 | 微 | 不 | 同 | 意 | 同 | 同 | 同 | 同 | 同 | 意 | 同 | 意 | 意 | 意 | 意 | 意 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 1  | 2  | 3  | 4  | 5  | 6  | 7  |

1. 師資培育所開設的教育學程的課程，應強調開拓國際視野或培養世界觀。

2. 師資培育所開設的教育學程的課程，應設計及提供可促進學生瞭解不同文化與種族的課。

3. 對世界歷史及不同文化的認識與瞭解將有助於日後社會科領域內容的教學。

4. 討論全球議題、全球局勢或全球發展概況的課，有助於開拓國際視野或培養世界觀。

5. 跨文化經驗有助於開拓國際視野或培養世界觀。

6. 不同的教學方法可促進學生對社會科領域內容的瞭解。

7. 全球關連是社會科領域的重要教學目標之一。
8. 師資培育應培育老師教授全球教育。

全球教育是為了培養年輕人對現今多元文化世界和全球相互關連的瞭解與互動的教育 (Merryfield, 2004, p.1)。它的相關學習內容包括：跨越國界問題以及全球相互連結的各種體系，包括生態、文化、經濟、政治與科技等；並培養及訓練學生能從他人的角度來看待不同的人、事、物 (Tye, 1999; 2009, p.4)。

10. 全球關連是九年一貫社會科領域的能力指標中的要求之一，截至本學期為止，在您修過的教育學程的課程當中，您的授課老師是否常常提及九年一貫社會科領域的能力指標？

11. 截至本學期為止，在您修過的教育學程的課程當中，您的授課老師曾經教授如何達到九年一貫社會科領域的能力指標的方法嗎？
非 比 與 比 非
常 一 一 一 常
般 般 般 般
差 差 相 好 好
的 的 同 的 的
12. 目前師資培育中心所開設的教育學程的課程當中，對個人開拓國際視野或世界觀的成效如何？

13. 您覺得師資培育中心所開設的教育學程的課程當中，對培育社會科領域的老師來教授全球關連的成效如何？

14. 總體而言，您覺得師資培育中心所開設的教育學程的課程當中，對培育社會科領域的老師來教授全球教育的成效如何？

15. 在您正式任教之後，您會常常將全球教育融入您的教學當中嗎？

完全不會
很少會
有時會
常常會
每次都會
第二部分：

填答說明：在下列的題目中，請寫出您認為最適合的答案。

1. 1) 截至本學期為止，在您修過的教育學程的課程當中，您曾經修過幾門有關全球議題、全球局勢或全球發展概況的課？2) 在這些課程當中，有幾門是必修課？
   1) 共__________________門課
   2) 有__________________門必修課

2. 1) 截至本學期為止，在您修過的教育學程的課程當中，您曾經修過幾門介紹不同國家、文化或人民的課？2) 在這些課程當中，有幾門是必修課？
   1) 共__________________門課
   2) 有__________________門必修課

3. 1) 截至本學期為止，在您修過的教育學程的課程當中，您曾經修過幾門有關全球關連、全球化對本地的影響或本地與全球各地相互影響的課？2) 在這些課程當中，有幾門是必修課？
   1) 共__________________門課
   2) 有__________________門必修課

4. 1) 截至本學期為止，在您修過的教育學程的課程當中，您曾經修過幾門討論權力衝突或討論有關國與國、人與人或文化之間相互歧視的課？2) 在這些課程當中，有幾門是必修課？
   1) 共__________________門課
   2) 有__________________門必修課

5. 截至本學期為止，在您修過的教育學程的課程當中，那一門學科對開拓國際視野或世界觀的幫助最大？
6. 1) 截至本學期為止，在您修過的教育學程的課程當中，您曾經修過幾門有
關於教學法的課? 2) 在這些課程當中，有幾門是必修課?

1) 共__________________門課

2) 有__________________門必修課

7. 截至本學期為止，在您修過的教育學程的課程當中，那些教學方法是您的
老師曾經使用過的?

8. 請寫出您認為在現行的教育學程的課程當中，與開拓國際視野或世界觀
相關的科目。

9. 請用數字(1~8)來說明，目前師資培育中心最應加強那一項措施，以培育
社會科領域的職前教師在未來能將全球教育融入教學當中(數字 8 代表最
常使用的數字 1 代表最不常使用的)?

______增加或開設相關課程
______修改現行相關課程的教材和教學方法
______充實相關資料圖書視聽設備
______舉辦相關的講座或學術研討會
______聘請專門的老師來授課
______安排來自於不同學校及國家的交換學習活動
______全球化現行的課程
______其他__________________________________________ 請列出

10. 在您正式任教之後，您打算採用那些教學方法來教授社會科領域相關科
目?
11. 截至本學期為止，您曾經參加過幾次介紹不同國家文化或人民的講座或課外活動?

12. 您有幾個來自不同國家或不同文化背景的朋友或同學？

13. 請用數字(1~7)來說明在不久的將來在您考取教師職照之後您將任教於各公私立國高中的社會科領域相關科目您打算採用下列哪些教學參考資料(數字 7 代表最常使用的數字 1 代表最不常使用的)

______ 教科書  
______ 參考書  
______ 網路上之相關資訊  
______ 報章雜誌  
______ Primary resources (原始資料)  
______ 學術期刊或相關研究論文  
______ 其他 ________________________________ 請說明

14. 整體而言，您覺得現行的教育學程的課程當中，是否支持或限制了全球教育的實施？

______ 支持  
______ 限制

15. 請寫出您覺得在現行的教育學程的課程當中，那些原因支持了全球教育的實施？

16. 請寫出您覺得在現行的教育學程的課程當中，那些原因限制了全球教育的實施？應如何克服這些困難？
第三部分：

填答說明：請依您的實際狀況，選擇或寫出一個答案。

1. 性別：______男      ______女

2. 您現在就讀的是？
   ______大學部
   ______碩士班
   ______博士班

3. 主修科目：

4. 您現在在師資班的身份是？
   ______第二年師資生
   ______實習老師
   ______其他________________________________請說明

5. 請寫出截至本學期為止，您在教育學程的課程當中已修過的學分數。
   已修過的必修科目學分數 ______
   已修過的選修科目學分數 ______

6. 請寫出您曾經出國的次數。

7. *如果您曾經出國請回答本題如果沒有請跳過本題作答
   出國時的見聞對您開拓國際視野或培養世界觀的影響程度如何？
   ______影響、幫助很大
   ______有些影響或幫助
   ______沒有影響或幫助

8. 請寫出您在國外因旅遊居住工作或讀書所停留最長的時間。
9. 下列何種管道影響您對全球局勢議題發展概況或重要事件的看法最大。 (可複選)

_____ 網路新聞或資訊
_____ 學校上課課程或課外活動
_____ 與同學親友交談的議題
_____ 大眾傳播媒體的播出或刊載
_____ 出國時的見聞
_____ 其他 ____________________________ 請列出

10. 下列何種管道是您獲得全球資訊的主要來源。 (可複選)

_____ 網路
_____ 電視
_____ 廣播
_____ 報紙
_____ 期刊雜誌書籍
_____ 其他 ____________________________ 請列出

11. 請寫出平均每週您談論時事或政治的次數。
Appendix C

Survey for Faculty: English Version
Respected teachers:

I am conducting a research of the implementation of the global education in teacher education programs in Taiwan. I would like to understand your perspectives in regards to this topic. Your opinions are valuable. Please answer the following questions. Thank you for your support and cooperation.

Section I: For each of the following questions, please circle the number that best describes your opinion.

Strongly Disagree = 1, Slightly Disagree = 2, Disagree = 3, Unsure = 4, Slightly Agree = 5, Agree = 6, Strongly Agree = 7

1. It is important that courses offered by teacher education programs emphasize developing a global worldview or perspective.
   - Strongly Disagree = 1
   - Slightly Disagree = 2
   - Disagree = 3
   - Unsure = 4
   - Slightly Agree = 5
   - Agree = 6
   - Strongly Agree = 7

2. It is important that the teacher education program provide courses to promote the understanding of different cultures and ethnic groups.
   - Strongly Disagree = 1
   - Slightly Disagree = 2
   - Disagree = 3
   - Unsure = 4
   - Slightly Agree = 5
   - Agree = 6
   - Strongly Agree = 7

3. The understanding of world history and different cultures will benefit your future teaching of social studies’ content.
   - Strongly Disagree = 1
   - Slightly Disagree = 2
   - Disagree = 3
   - Unsure = 4
   - Slightly Agree = 5
   - Agree = 6
   - Strongly Agree = 7

4. Courses that discuss global issues, conditions and development will help you to develop a global worldview or perspective.
   - Strongly Disagree = 1
   - Slightly Disagree = 2
   - Disagree = 3
   - Unsure = 4
   - Slightly Agree = 5
   - Agree = 6
   - Strongly Agree = 7

5. Cross-cultural experiences will help you to develop a global worldview or perspective.
   - Strongly Disagree = 1
   - Slightly Disagree = 2
   - Disagree = 3
   - Unsure = 4
   - Slightly Agree = 5
   - Agree = 6
   - Strongly Agree = 7

6. Applying different teaching methods will promote students’ understanding of social studies content knowledge.
   - Strongly Disagree = 1
   - Slightly Disagree = 2
   - Disagree = 3
   - Unsure = 4
   - Slightly Agree = 5
   - Agree = 6
   - Strongly Agree = 7
GLOBAL EDUCATION “prepares young people to understand and interact within a culturally diverse and globally interconnected world” (Merryfield, 2004, p.1). “It involves learning about those problems cut across national boundaries, and about the interconnectedness of system—ecological, cultural, economic, political, and technological. Global education also “involves perspective taking—seeing things through the eyes and minds of others” (Tye, 1991; 2009, p.4).
11. What is the effectiveness concerning about the courses offered by the teacher education program to develop a global worldview or perspective?

 _______ Extremely Poor  
 _______ Below Average  
 _______ Average  
 _______ Above Average  
 _______ Excellent

12. Overall, what is the effectiveness concerning about the courses offered by the teacher education program to prepare pre-service social studies teachers to teach global education?

 _______ Extremely Poor  
 _______ Below Average  
 _______ Average  
 _______ Above Average  
 _______ Excellent

13. What factors affect the effectiveness of the teacher education program to prepare social studies teachers to teach global education?

Section II: Please write down or select the most appropriate answers that best describe your experiences.

1. a) How many courses in the existing courses provided by the teacher education program discuss global issues, conditions, or development? b) How many of these courses are REQUIRED courses for preservice social studies teachers?

   a) ______________

   b) ______________

2. a) How many courses in the existing courses provided by the teacher education program introduce different countries, cultures or people? b) How many of these courses are REQUIRED courses for preservice social studies teachers?

   a) ______________

   b) ______________
3. a) How many courses in the existing courses provided by the teacher education program teach global connections, the impact of globalization on local communities, or the interconnectedness between the local and the globe? b) How many of these courses are **REQUIRED** courses for pre-service social studies teachers?

a) ____________

b) ____________

4. How many courses in the existing courses provided by the teacher education program deal with the power conflict or discrimination of different countries, people and cultures? b) How many of these courses are **REQUIRED** courses for pre-service social studies teachers?

a) ____________

b) ____________

5. a) How many courses in the existing courses provided by the teacher education program introduce different pedagogy? b) How many of these courses are **REQUIRED** courses for pre-service social studies teachers?

a) ____________

b) ____________

6. In your opinion, what content knowledge should pre-service social studies teachers learn?

7. In your opinion, what pedagogical knowledge should pre-service social studies teachers acquire?
8. What related content knowledge will help students to develop a global worldview or perspective?

9. What related pedagogical knowledge will help students to develop a global worldview or perspective?

10. Please write down the courses provided by the teacher education programs that you think will help pre-service social studies teachers to develop a global worldview or perspective?

11. Making global connection is one of the mandated benchmarks for social studies. Can the existing courses provided by the teacher education programs effectively prepared pre-service social studies teachers to achieve this goal? Why or Why not?

12. What related content and pedagogical knowledge should pre-service social studies teachers learn in order to teach global interconnectedness?
13. Even though global education is not one of the mandated requirements from Ministry of Education (MOE) for the teacher education programs in Taiwan; developing a global worldview or perspective and making global connections are closely related to global education. How can the teacher education programs infuse global education into its existing courses?

14. (Including this semester) From those courses you have taught in the teacher education program, which course helps students the most in developing a global worldview or perspective?

15. Please rate the most needed to the least needed (#8 the most needed; #1 the least needed). Which of the following is the most needed in the teacher education program in order to prepare pre-service social studies teachers to infuse global education in their teaching in the near future?

- Add related courses
- Change the existing teaching materials and pedagogy
- Add and improve related resources, books, and equipment
- Hold related seminars and conferences
- Hire teachers whose specialty is in related areas
- Arrange exchange programs with different schools of different countries
- Globalize the existing curriculum
- Others __________________________ Please indicate

16. Please list the teaching methods you have used from courses you taught in the teacher education program.
17. Please indicate what kinds of teaching materials you use in your classrooms and rate the most to the least (#7 the most; #1 the least) for each one of the teaching materials on the list.

- Textbooks
- References related to textbooks
- Information from the Internet
- Newspapers and magazines
- Primary resources
- Periodical and research papers
- Others

Please indicate

18. Overall, do the mandated educational policies for the teacher education program from the Ministry of Education (MOE) SUPPORT or CONSTRAIN the implementation of global education?

- Support
- Constrain

19. Please list the factors from the MOE policies that “SUPPORT” the implementation of global education?

20. Please list the factors from the MOE policies that “CONSTRAIN” the implementation of global education? What are your suggestions regarding how to overcome these constraints?

21. What factors SUPPORT the implementation of global education from the existing courses provided by the teacher education program?
22. What factors **CONSTRAIN** the implementation of global education from the existing courses provided by the teacher education program? How to overcome these constraints?

23. Assume that the teacher education program should offer more courses that prepare pre-service social studies teachers to teach global education. What difficulties (or barriers) will the teacher education program encounter in providing these courses?

**Section III: Please check the most accurate answer for each of the following questions.**

1. Sex: ________Male ________Female

2. Including this year, how many years have you been teaching?

3. What is your highest degree?
   
   ________Doctoral  
   ________Master  
   ________Bachelor

4. What is your major for your highest degree?

5. What is the longest period of time you stayed abroad because of traveling, working, or studying?
Appendix D

Survey for Faculty: Chinese Version
各位尊敬的老師：

本人正進行“全球教育在各大專院校教育學程中的實施現況調查”，想瞭解您對各大專院校師資培育中心實施全球教育的看法。您的意見非常寶貴，請逐題仔細填答，謝謝您的支持與合作！

楊曉經 謹啟

第一部分:

填答說明：在下列的題目中，請選擇一個與您的意見最接近的答案。

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8. 師資培育應培育老師教授全球教育。

全球教育是為了培養年輕人對現今多元文化世界和全球相互關連的瞭解與互動的教育 (Merryfield, 2004, p.1)。它的相關學習內容包括：跨越國界問題以及全球相互連結的各種體系，包括生態、文化、經濟、政治與科技等；並培養及訓練學生能從他人的角度來看待不同的人、事、物 (Tye, 1999; 2009, p.4)。

9. 全球關連”是九年一貫社會科領域的能力指標中的要求之一，截至本學期為止，在您教過的教育學程的課程當中，您常常提及九年一貫社會科領域的能力指標嗎？

10. 截至本學期為止，在您教過的教育學程的課程當中，您曾經教授如何達到九年一貫社會科領域的能力指標的方法嗎？
11. 目前師資培育中心所開設的教育學程的課程當中，對個人開拓國際視野或世界觀的成效如何？

12. 總體而言，您覺得師資培育中心所開設的教育學程的課程當中，對培育社會科學領域的老師來教授全球教育的成效如何？

13. 結上題，您覺得那些原因影響了師資培育中心培育社會科學領域老師來教授全球教育的成效？

第二部分：

填答說明：在下列的題目中，請寫出您認為最適合的答案。

1. 1) 在現行的教育學程的課程當中，有幾門課是有關全球議題、全球局勢或全球發展概況的課？2) 在這些課程當中，有幾門是社會科學領域職前老師的必修課？

   1) 共__________________門課

   2) 有__________________門必修課

2. 1) 在現行的教育學程的課程當中，有幾門課是介紹不同國家、文化或人民的課？2) 在這些課程當中，有幾門是社會科學領域職前老師的必修課？

   1) 共__________________門課

   2) 有__________________門必修課
3. 1) 在現行的教育學程的課程當中，有幾門課是有關全球關連、全球化對本地的影響或本地與全球各地相互影響的課？2) 在這些課程當中，有幾門是社會科領域職前老師的必修課？

   1) 共__________________門課
   
   2) 有__________________門必修課

4. 1) 在現行的教育學程的課程當中，有幾門課是討論權力衝突或國與國、人與人或文化之間歧視的課？2) 在這些課程當中，有幾門是社會科領域職前老師的必修課？

   1) 共__________________門課
   
   2) 有__________________門必修課

5. 1) 在現行的教育學程的課程當中，有幾門課是有關教學法的課？2) 在這些課程當中，有幾門是社會科領域職前老師的必修課？

   a) 共__________________門課
   
   b) 有__________________門必修課

6. 您覺得正在修教育學程的社會科領域的職前老師應學習那些相關的內容知識？

7. 您覺得正在修教育學程的社會科領域的職前老師應學習那些相關的教學方法知識？
8. 您覺得那些相關的內容知識有助於開拓學生的國際視野或世界觀？

9. 您覺得那些相關的教學方法有助於開拓學生的國際視野或世界觀？

10. 請寫出您認為在現行的教育學程的課程當中，與開拓社會科領域的儲備師資的國際視野或世界觀相關的科目。

11. “全球關連”是九年一貫社會科領域的能力指標中的要求之一，您認為在現行的教育學程的課程當中，能否有效的培養社會科領域的職前老師達到這個要求？為什麼？

12. 您覺得社會科領域的職前老師需要學習那些相關內容知識和教學方法，才能達到教授“全球關連”的要求？
13. 全球教育雖非教育部明令要求的師資培育課程或學習要求之一，但開拓學生的國際視野或世界觀及全球關連卻與全球教育密不可分，您認為應如何將全球教育融入現行的教育學程的課程當中？

14. 截至本學期為止，在您已經教過的教育學程的課程當中，那一門學科對開拓國際視野或世界觀的幫助最大？

14. 請用數字(1~8)來說明，目前師資培育中心最應加強那一項措施，以培育社會科領域的職前教師在未來能將全球教育融入教學當中(數字 8 代表最常使用的數字 1 代表最不常使用的)？

______ 增加或開設相關課程
______ 修改現行相關課程的教材和教學方法
______ 充實相關資料圖書視聽設備
______ 舉辦相關的講座或學術研討會
______ 聘請專門的老師來授課
______ 安排來自於不同學校及國家的交換學習活動
______ 全球化現行的課程
______ 其他________________________________ 請列出

16. 在您教過的教育學程的課程當中，您曾經使用過那些教學方法？
17. 請用數字(1~7)來說明在您曾經教的社會科領域相關科目從您最常使用的至最不常使用的教學參考資料(數字 1 代表最常使用的數字 7 代表最不常使用的)

______ 教科書
______ 參考書
______ 網路上之相關資訊
______ 報章雜誌
______ Primary resources (原始資料)
______ 學術期刊或相關研究論文
______ 其他___________________ 請說明

18. 整體而言，您覺得目前教育部所頒行的師資培育相關的教育法令中，是否支持或限制了全球教育的實施?

______ 支持
______ 限制

19. 請寫出您覺得目前教育部所頒行的師資培育相關的教育法令中，那些原因支持了全球教育的實施?

20. 請寫出您覺得目前教育部所頒行的師資培育相關的教育法令中，那些原因限制了全球教育的實施？應如何克服這些困難?

21. 您覺得現行的師資培育中心所開設的教育學程的課程當中，有那些原因支持了全球教育的實施？
22. 您覺得現行的師資培育中心所開設的教育學程的課程當中，有那些原因限制了全球教育的實施？您覺得應如何克服這些困難？

23. 假設為了能更有效的培養社會科領域的老師來教授全球教育，需要在現行的師資培育中心所開設的教育學程的課程當中加入更多有關全球教育的課程，您覺得可能會遭遇到的困難為何？

第三部分：

填答說明：請依您的實際狀況，選擇或寫出一個答案。

12. 性別：______男 ______女

13. 至今年為止，您共有幾年的教學經驗？

14. 您的最高學歷？

______博士
______碩士
______學士

15. 請寫出您的最高學歷的主修科目。

16. 請寫出您在國外因旅遊居住工作或讀書所停留最長的時間。