
Implications of the Family and Consumer Sciences Curriculum in the USA

This study examined the Family and Consumer Sciences (FCS) National Standards with some examples at the state level, analyzed the previous studies relevant to curriculum implementation in the USA, and explored critical success factors in moving toward the new perspective curriculum in exemplary states. The process, in which the FCS discipline struggled to clarify the identity and image as well as to find the mission and vision, produced the FCS National Standards in 1998 and 2008 in the USA. The FCS National Standards were established to fulfill the mission of the FCS based on a critical science perspective. The previous research on a state level implementation indicated that the majority of FCS state administrators agreed that the National Standards positively influenced curriculum development. The critical success factors in integrating National Standards into local programs included the dissemination of the philosophical works of Marjorie Brown, the foundation of the FCS curriculum with a critical science perspective, the establishment of National Standards corresponding to the philosophical works and a critical science perspective, the openness of state FCS administrators to educational reform, the construction of an infrastructure to support reform, and the commitment by university professors to develop a teacher training program. The critical success factors identified can be employed as an informative guide for the future development and implementation of the Family and Consumer Sciences curriculum in Korea.

Post-doctoral Research Fellow, Dept. of Educational Psychology and Learning Systems, Florida State University, USA
(nyu@fsu.edu)

Key Words: Family and Consumer Sciences Education, Family and Consumer Sciences National Standards, Curriculum development, Curriculum implementation

Korea has had a Family and Consumer Sciences¹ (FCS) curriculum² for elementary and secondary schools for several decades, during which they have undergone a great deal of changes and development through eight curriculum revisions. Since the 4th revision, the FCS curriculum has focused on family and consumer life, while the FCS curriculum had previously emphasized career (Lee, Choi, & Yoo, 2001). The elementary and secondary FCS curriculums have shared the same content areas with different scopes since the 7th revision (C. Lee, *et al.*, 2001). A critical curriculum perspective was partially introduced in the 2007 revised curriculum (Yoo, 2006; Y. Lee, *et al.*, 2005).

However, FCS education is now facing a crisis with the 2009 revised curriculum in Korea (Chae, Yoo, & Lee, 2010). According to the 2009 revised curriculum, or the latest version, it is mandatory that only students from 5th through 9th grades attend FCS classes, but becomes an elective course for 10th grade students. As the authority of principals in deciding school curriculum increases, subject matters that are not part of the Scholastic Aptitude Test (SAT) of college entrance (such as FCS) are not likely to be included (Chae, *et al.*, 2010). The crisis is related to the educational settings that focus on the academic

¹Prior to 1994, this field was commonly called "Home Economics". This study used the term, "Family and Consumer Sciences" throughout unless the term might misrepresent the original meaning owing to the historical context.

²Since the 7th curriculum revision, FCS education in elementary and secondary schools was combined with Technology and adopted the formal name, Practical Arts (Technology and FCS). However, FCS was used as a subject matter throughout this study in order to focus on FCS education in elementary and secondary schools.

knowledge and the internal crisis of FCS education as well. The reasons for the internal crisis are confusion of identity in FCS, fragmented listings of information and skills in the FCS curriculum from a technical perspective, and failure to address the changes in family relations and consumer issues (M. -J. Park, 2006). They have led stakeholders to ignore the needs of FCS education in schools.

Similar concerns have emerged in the USA, but the reaction there was more proactive. Twice, there were struggles to clarify the FCS identity and debates about what the FCS name should be since the formative stage. First, "Home Economics" (a new name of the field) was adopted at the Lake Placid Conference in 1899–1909. The other name "Family and Consumer Sciences" was suggested at the conference in Scottsdale, Arizona, in 1993, and officially adopted in 1994 (Stage, 1997). Social changes in the USA prompted a name change from Home Economics to FCS, and the profession has changed the entire focus of the program.

In accordance with the social changes and the name change, the technical discipline of FCS has evolved into a critical science-based field of FCS since the early 1980s. The transition was evidenced by the development and adoption of the critical science perspective curriculum in many states such as Nebraska, Ohio, Oregon, and Wisconsin (C. K. Fox, 2001; Smith, 2004), Idaho, Minnesota, and Pennsylvania (Smith, 2004), and Virginia and Missouri (Arendt, Boggs, & Glasscock, 2000).

Marjorie Brown³ and others led to a different approach by using critical theory-based writings (Baldwin, 1989, 1991, 1999; Brown, 1978, 1980; Brown & Paolucci, 1979; Hultgren, 1989). The focus of the critical science-based perspective is for individuals, families, and communities to think about the problems of everyday life and to take action toward the improvement of those problems under the consideration of valued ends and moral consequences (Brown, 1978). These problems can be based on perennial and evolving issues of family, career, and community (Montgomery, 2008).

The focus by Brown on a practical problem-based curriculum model with a critical science philosophy inspired new hope in curriculum planners (Thomas, Baum, Laster, & Fedje, 1999). Utilizing Brown's decision rules (1978), the FCS curriculum has two major approaches – a competency approach and a process approach with a critical science perspective (National Association of State Administrators of Family and Consumer Sciences [NASAFACS], 1998).

The *National Standards for Family and Consumer Sciences Education* (National Standards) was established in 1998 to provide a strong vision, clear conceptualization, and a common direction for FCS education at the national, state, and local levels (NASAFACS, 1998). The new National Standards, *2nd Edition* (2008–2018) revalidated the vision and mission for FCS education of the first edition (American Association of Family and Consumer Sciences, 2010). Vision, planning, resources, marketing, evaluation, and tenacity are required to put the FCS National Standards into action (Arendt, *et al.*, 2000). Implications can be established through the identification of the critical success factors that set the exemplary cases of some states in the USA.

This study analyzed the FCS National Standards, the states' FCS curricula, and studies related to the implementation of FCS National Standards in the USA in order to examine the critical success factors of the states that actively adopted a critical science perspective to the FCS curriculum in elementary and secondary schools. This study discussed the implications for the Korean FCS curriculum process and suggested future research questions for comprehensive and systematic FCS curriculum development in Korea.

THE EVOLUTION TO NATIONAL STANDARDS

The Vision, Mission, and Name of FCS

Home Economics studies emerged during the Lake Placid Conferences in 1899–1909 and the *American Home Economics Association* and the *Journal of Home Economics* were established in 1909 (Stage,

³Marjorie Brown was a professor of FCS education in the College of Education at the University of Minnesota. She was highly respected in FCS as a philosopher and scholar (Vincenti, 1997).

1997). The mission of this academic field has been to improve family well-being by enabling families to be successful in their mutual relationships with the environments in which they function. With the industrial revolution, some family functions shifted to factories, hotels, bakeries, restaurants, nursing homes, and schools. Consequently, the field has provided many career options for both men and women in nonprofit organizations, businesses, and governments.⁴

Specialization within the Home Economics field has been created according to social changes, such as diversification of family structures, the aging population, increases in the number of working women, the number of men in the Home Economics field, and technological changes.

The name, *Home Economics*, became increasingly inappropriate in describing the work of this discipline with subspecialties investigating various family functions and problems. The years 1993 and 1994 were significant for FCS. These years were filled with debates regarding what the field was about and what it should be called (Hetherly, 2000). The new name, *Family and Consumer Sciences*, was selected at a conference held in 1993 in Scottsdale, Arizona, entitled *Positioning the Profession for the 21st Century*. The vision and mission statements and the name change were officially adopted in 1994.

The vision is that “Family and Consumer Sciences Education empowers individuals and families across the life span to manage the challenges of living and working in a diverse global society. Our unique focus is on families, work, and their interrelationships (NASAFACS, 1998, p. 2). The mission of FCS education is “to prepare students for family life, work life, and careers in FCS education by providing opportunities to develop the knowledge, skills, attitudes, and behaviors needed (NASAFACS, 1998, p. 3).

Both the vision and mission statements emphasized preparation for improvement of both family life and career; in addition, the National Standards includes areas of study related to both (Reichelt, 2001). The vision and mission statements

have been widely used to influence the directions taken by the FCS curriculum and program development at the national, state, and local levels (NASAFACS, 2008).

Developing the First and Second Edition of National Standards

The National Association of State Administrators for Family and Consumer Sciences Education (NASAFACS), an affiliate of the *Family and Consumer Sciences Education Division of the Association for Career and Technical Education*, first started a project to develop the National Standards in May 1995. The atmosphere created by this project celebrated the diverse philosophies of states and combined various approaches to standards and educational delivery systems. The resulting work provided a powerful tool for presenting the movement from Home Economics education with a technical perspective to FCS education with a new direction focused on broader family and society issues. For the last decade, the National Standards has presented a significant new direction and a strong and clear conceptualization for FCS education at the national, state, and local levels (NASAFACS, 1998). In May 2005, NASAFACS initiated a project to update the National Standards, through a highly participatory process to collect recommendations from various stakeholders.

The new *National Standards, 2nd Edition*, reconfirmed the vision and mission for FCS Education of the first edition (NASAFACS, 2008) and continued the format of the first edition except for a few changes. Compared to the first standards, the second edition concentrates on individual, family, career, and community, as well as applies the content areas globally (Botine, 2010).

FCS NATIONAL STANDARDS WITH SOME EXAMPLES OF STATE LEVEL CURRICULUM

The National Standards provides a framework for states to use on a voluntary basis by choosing areas of study and individual standards that fit their

⁴<http://family.jrank.org/pages/785/Home-Economics.html>

Table 1. *Components of FCS National Standards*

Component	Description
Comprehensive Standards	To describe of the overall area
Content Standards	To explain what is expected from the learner
Competencies	To define knowledge, skills, and practices
Academic proficiencies	To relate the academic proficiencies of language arts, math, and science to the content standards of FCS
Process Questions	To guide students in thinking and reasoning about practical problems in real life
Scenario Samples	To provide authentic life and work situations in a problem-solving context

philosophy and needs (NASAFACS, 2008). This section discussed the FCS National Standards with some examples from five states (Minnesota, Nebraska, Ohio, Pennsylvania, and Wisconsin) that have actively developed and implemented the critical perspective curriculum.

Overall Structure of the National Standards

The National Standards includes the Reasoning for Action Standard and sets of standards for the 16 areas of study. The areas of study are designed for minimal overlap and not analogous to courses at the state and local level. Instead, standards from a particular area of study would be addressed in several different courses. Similarly, any one course could include standards from several different areas of study (W. S. Fox, 2000).

The FCS National Standards contains components shown in Table 1 and offers a multilayered structure for the 16 areas of study. Three types of standards (comprehensive standards, content standards, and competencies), “are structured in a three-level, nested format” (W. S. Fox, 2000, p. 11). The comprehensive standard is the first level; each set of standards includes one comprehensive standard and several content standards. Each content standard (the second level) contains several competencies. In addition, each content standard includes two or more supporting components (academic proficiencies and process questions). These components (competencies, academic proficiencies, and process questions) are provided for each of the 86 content standards that form the 16 areas of study (W. S. Fox, 2000).

The components of the National Standards

Areas of study and comprehensive standards
Sixteen areas of study are arranged alphabetically by

title (shown in the second column of Table 2) and have two broad areas of FCS education, consumer and family living areas and occupational areas (W. S. Fox, 2000). The distinction between the two areas is noticeable in the comprehensive standard. Comprehensive standards “are not designed for measurement, but to provide a general description and overall direction” (NASAFACS, 1998, p. 11). For example, for 3.0 Consumer Services, the comprehensive standard is to “integrate knowledge, skills, and practices needed for careers in consumer services” (NASAFACS, 2008, p. 14). This shows an emphasis on career preparation, as do the comprehensive standards for eight other areas of study. The comprehensive standards for the remaining seven areas reflect a stronger focus on consumer and family living, as shown in the comprehensive standard for 6.0 Family: “Evaluate the significance of family and its effects on the well-being of individuals and society” (NASAFACS, 2008, p. 18). Consequently, in National Standards, the areas of study that focus on career preparation are 3.0, 4.0, 5.0, 7.0, 8.0, 9.0, 10.0, 11.0, and 16.0; the areas of study that emphasize consumer and family living are 1.0, 2.0, 6.0, 12.0, 13.0, 14.0, and 15.0 (Table 2).

Reichelt (2001) collected data from telephone interviews with 44 FCS administrators in state departments of education. The data she collected pertained to the components of 16 areas of study from the most implemented in the states to the least (see the note below Table 2). The most implemented area of study in the states was 15.0 parenting (Reichelt, 2001).

Table 2 also shows content areas of five states – Minnesota (Minnesota Department Of Education, 2004), Nebraska (Nebraska Department of Education, 2005), Ohio (Ohio Department of Education, 2007), Pennsylvania (Pennsylvania Department of Education,

Table 2. Content areas of National Standards and five states

	National Standards*	Minnesota	Nebraska	Ohio	Pennsylvania	Wisconsin
Term they used	Area of study	Focus area / content area	Major category / subcategory	Content standards	Standard area	Integrative idea
Content Areas	1.0 Career, Community and Life Connections	Interpersonal communications • Family Systems • Lifelong Human Development • Parenting Resource Management • Career Exploration/Investigation • Consumerism • Nutrition, Wellness, and Food Preparation • Community Service • Housing/interior • Apparel, Design, and Textiles	Reasoning for Action Individuals and Families • Interpersonal Relationships • Family as a System • Parenting • Human Growth and Development Personal and Family Resources • Consumer Resources & Management • Nutrition/Wellness/Foods • Living Environments • Textiles and Apparel Family and Work • Work Readiness • Family, Career and Community Connections • Balancing Work and Family	• Advocate a Healthy Lifestyle • Build Relationships • Demonstrate Personal Financial Literacy • Design a Career Blueprint • Become Consumer Savvy • Ensure Food Safety • Manage a Life Plan • Manage Personal Transition • Nurture and Care for Children	Financial and Resource Management • Resource Management • Spending Plan • Housing • Consumer Rights and Responsibilities • Income • Purchasing • Services Balancing Family, Work and Community Responsibility • Practical Reasoning • Action Plans • Team Building • Space Planning • Technology • Family Functions • Family Life Cycle • Communications Food Science and Nutrition Food Supply • Safety and Sanitation • Nutrient Analysis • Nutrition and Health • Calories and Energy • Meal Management • Food Science Child Development • Developmental Stages • Health and Safety • Learning Environments • School Involvement • Literacy	• Continuing Concerns of the Family • Practical Reasoning • Family Action • Personal and Social Responsibility • Work of Family Learning to Learn
	2.0 Consumer and Family Resources					
	3.0 <i>Consumer Services</i>					
	4.0 Education and Early Childhood					
	5.0 <i>Facilities Management and Maintenance</i>					
	6.0 Family					
	7.0 <i>Family and Community Services</i>					
	8.0 Food Production and Services					
	9.0 <u>Food Science, Diets, and Nutrition</u>					
	10.0 <i>Hospitality, Tourism, and Recreation</i>					
	11.0 <i>Housing, Interiors and Furnishings</i>					
	12.0 Human Development					
	13.0 Interpersonal Relationships					
	14.0 Nutrition and Wellness					
	15.0 Parenting					
	16.0 <i>Textiles, Fashion, and Apparel</i>					
Grades	Not specified	K-12	6-12	6-12	K-12	Not specified

Note* Among the sixteen areas of study, the nine components in bold are the most used, six components in italics are the least, underlined areas are the state controversies (Reichelt, 2001).

2002), and Wisconsin (Wisconsin Department of Public Instruction, 1997). Practical reasoning is covered specifically as one of the main content areas, instead of as a vehicle for the active use and functionality of content areas in Nebraska, Ohio, Pennsylvania, and Wisconsin. The Wisconsin content areas are very broad and integrative, unlike those of other states. The criterion for classifying the content areas of Wisconsin is different from other states. The Wisconsin standards are organized around six representative ideas that connect the main features of the discipline according to an integrated approach to FCS education (Wisconsin Department of Public Instruction, 1997). Wisconsin has Integrative topics, such as Continuing Concerns of the Family, Practical Reasoning, and Family Action, instead of specialty areas, made up the core of this research-based field (i.e., the content areas of National Standards). It is similar to the unit structure of the FCS curriculum in the Korean 2007 revised curriculum (Yoo, 2006; Yoo & Lee, 2009). An integrative approach to the FCS content structure is ideal to help students solve practical real life problems (Y. Lee, *et al.*, 2005).

Because of the diversities in state programs, the ways to suggest the academic performance standards for FCS programs vary. The grade level of students is not specified in Wisconsin. Rather, Wisconsin standards for FCS indicates expectations of what students might do to show they have met the content standards at introductory, intermediate, and advanced levels of study. Minnesota, Nebraska, and Ohio have content standards according to the grade and achievement levels of students. Minnesota has four levels: primary, intermediate, middle school, and high school. Nebraska has two levels: middle/junior high and senior high. Ohio has introductory, intermediate, and advanced levels. All the grade levels from kindergarten to grade 12th can choose FCS programs in Minnesota and Pennsylvania, while FCS courses in Nebraska and Ohio can be taken by secondary school students, from grades 6 to 12 (Ohio Department of Education, 2009) as shown in Table 2. Pennsylvania (Pennsylvania Department of Education, 2010) suggests grade levels through the Standards Aligned System (SAS) web site. The SAS provides curriculum framework, materials and

resources, instruction, and assessment for all subject areas in detail. Some materials are linked with the related standards of other subject areas (e.g., for the FCS program's lesson on safe food handling techniques, the material can be shared with a related standard of the subject area 'Health, Safety, and Physical Education').

Academic proficiencies FCS programs provided life skills as well as emphasized academic areas and created competencies or standards stressing reading, writing, science, and mathematics (Antuna, 2010). For each area of National Standards, corresponding proficiencies are identified for language arts, mathematics, and science. The academic proficiencies of FCS are intended to coordinate with state and local academic standards of language arts, mathematics, and science. They focus on the contextualized use of academic proficiencies in combination with an FCS area. Curriculum integration is accomplished in various ways. For example, for the Content Standard 15.4 of parenting, "analyze physical and emotional factors related to beginning the parenting process" (NASAFACS, 1998⁵, p. 228), a contextualized language arts statement is that it "applies the reading process and strategies to directions or tasks that are relatively short, with limited categories of information, directions, concepts, and vocabulary (LA 1)" (NASAFACS, 1998, p. 228). In this example of corresponding proficiency for science, if the students would learn to "analyze physical and emotional factors related to beginning the parenting process" (NASAFACS, 1998, p. 228) in an FCS parenting class, they also can "describe and explain the human reproductive system" (NASAFACS, 1998, p. 228) in their science classes. Miller and Tulloch (1989) presented basic skills activities of math, science, and social studies in FCS classrooms.

State and local entities are encouraged to develop contextual statements that describe how the academic standards are used. Such contextualized statements provide a strong foundation for curriculum

⁵The second edition of the National Standards (2008) revalidated almost all components of the first one with some minor revisions, but did not show the academic proficiencies associated with specific content standards in detail. Therefore, the academic proficiencies of the first edition of National Standards (1998) were presented as examples.

integration, an approach promoted in federal legislation and widely advocated for educational reform that has been represented by the *National Educational Goals: Building a Nation of Learners* since 1990 (Hetherly, 2000). States have local terms corresponding to the academic proficiencies of National Standards, e.g., *Essential Learnings* in Nebraska (Nebraska Department of Education, 2010), *Practical Application of Academic Skills* in Minnesota (Minnesota Department Of Education, 2004), and an academic content benchmark in Ohio (Ohio Department of Education, 2007). Students understand and reinforce what they learned in mandatory academic programs, including language arts, math, and science through FCS classes. It makes the student recognize the value of academic knowledge and skills (W. S. Fox, 2000).

Process questions In the National Standards, 12 process questions are provided for each content standard, with three systems of action for each of the four process areas: thinking, communication, leadership, and management. The process questions are created to help students interpret and reflect the content standards (NASAFACS, 2008). They are used simultaneously and interactively to address issues in all 16 areas of study. Regardless of which FCS content is being conveyed, the process questions and systems of action are used to apply it to real life.

The process questions are grounded in a critical science curriculum approach based on three systems of action that individuals and families use to deal with issues they encounter. Technical actions emphasize knowledge, facts, and manipulative skills. Interpretive actions are used to develop shared meanings and understandings. Reflective questions are used to criticize the issues, to investigate the

stereotypes and ideology behind the phenomena, and to make choices that will be best for themselves, others, and society (NASAFACS, 1998). Table 3 shows the question examples of the three systems of action (W. S. Fox, 2000).

Research Studies Related to Implementation of FCS National Standards

Reichelt (2001) identified the implementation of the FCS National Standards published in 1998 in secondary schools. The interview results reported that 93% FCS state administrators of Departments of Education who participated were implementing the National Standards in their states. The reasons why they implemented the National Standards were that it was helpful to improve the existing curriculum and develop a new curriculum. They also agreed that National Standards was a positive tool for public relations and for promoting a positive image of FCS as a discipline (Reichelt, 2001).

C. K. Fox (2001) reported that the prevalent mode of FCS teachers (76.7%) for professional teaching practice was the process-oriented practice. Smith (2004) examined how extensively the critical science perspective was used in secondary schools. Sixteen state FCS supervisors responded through an electronic survey in November 2001. Results indicated that 7 of the 16 states implemented the critical science perspective. A total of 11 of the 16 (69%) state supervisors were familiar with the FCS chapter on the critical science curriculum in the *Curriculum Handbook* published by the Association of Supervision and Curriculum Development (ASCD). Among the eleven supervisors who were familiar with the ASCD chapter, six reported that it is helpful to implement programs.

Grogan-Faorcloth, Smith, and Hall (2001) and

Table 3. *The Question Examples of the Three Systems of Action*

Technical questions	Interpretive questions	Reflective questions
<ul style="list-style-type: none"> - What is happening here? - What facts apply? - What skills do you need? 	<ul style="list-style-type: none"> - What is important to you? - What does it mean? - How would you describe the situation? - What alternatives and consequences do you see? 	<ul style="list-style-type: none"> - What should we do? - What is really happening here? - Why is this important to us? - What are the underlying causes of this situation? - How will this choice affect other people? - Why would this be a good or poor choice, in the short and long run?

Smith, Hall, and Jones (2001) examined the concerns and perceptions of FCS stakeholders. These studies provided the information to diagnose the situation, identify the direction, and design the strategies. Grogan-Faorcloth, *et al.* (2001) measured the level of concern about the FCS standards of 173 FCS teachers. The results indicated that the majority of the teachers were at the stage three level of concern and perceived innovation as a personal threat. The researchers presumed that it might be concerned with a lack of understanding of the standards or a lack of time and resources. Smith, *et al.* (2001) examined the perception of parents, professionals, and vocational administrators about national FCS standards. They chose 7 out of 16 content areas of FCS National Standards for this study. A total of 7 content standards contained career, community and family connections, family, family and community services, human development, interpersonal relationships, and nutrition and wellness. They identified that the three groups of participants supported that all the seven areas should be included. The vocational administrators showed the highest level of support, followed by professionals and parents. However, the participants who believed the content actually was included in contemporary programs were lower than the response of those who believed it should be included. The researchers suggested the need to educate the public about the FCS profession by workshops because the three groups were considered decision makers.

A follow-up study was conducted to determine whether the original participants of the intervention program have made substantial changes in their teaching practice (Shelton, 2004). The purpose of the intervention program was to initiate the critical perspective curriculum. The results revealed that the majority of the respondents made lasting changes in their curriculum orientation since their involvement in workshops ten years earlier. The personal readiness and growth of participants mainly influenced the change in their curriculum orientation (Shelton, 2004). The results supported the findings of Lichty (1996) who examined factors of previous studies that created obstacles or support for a change to take

place that included a possible change of curriculum orientation. Twenty-nine teachers who participated in learning communities six times in three years learned the various curriculum orientations and kept writing reflective journals. The reflective journals indicated that as they experienced the change of curriculum orientation, many psychological factors including excitement, challenge, revitalization, and commitment are involved. Resources of time, skill, knowledge, and finances as well as support from family members, school administrators, and colleagues provided assistance for teachers involved in change activities.

The majority of the participants from the previous studies were in favor of a critical science perspective and National Standards relevant to it. Some studies mentioned that the professionals, supervisors, and teachers experienced a range of emotions such as delight, excitement, empowerment, and challenging frustration throughout the journey of the formation and implementation of the critical science perspective in the FCS curriculum (Arendt, *et al.*, 2000; Ashby, *et al.*, 2000; Lichty, 1996; Montgomery, Brozovsky, & Lichty, 1999; Thomas, *et al.*, 1999; Vail, *et al.*, 1999).

McClelland (an FCS teacher) chose dancing as the metaphor for her struggle with a new orientation. She described her uncertainty about the steps in this new dance and her resulting clumsiness, as shown below (Vail, *et al.*, 1999):

The change in curriculum requires change in my teaching. For me to teach authentically in this new dance, I have to change the way I am in the classroom. It is not easy to learn a new genre of dance. I will try again next year to improve my teaching of grading as an example of the manifestation of power in the classroom (Vail, *et al.*, 1999, p. 277).

Critical Success Factors in Integrating National Standards of FCS Into Practice in the USA

The implementation of a critical science approach is difficult because of the complexity of the philosophical basis. A critical science-based approach would examine the problems that deal with continuing

concerns, focusing on the broader problems of individuals, families, and societies (C. K. Fox, 2001). The Ohio curriculum reform was created in FCS classrooms by teachers and students, and resulted in a 267% enrollment increase from 1982 to 1997; in addition, it consisted of 41.5% males (Thomas, *et al.*, 1999). It is useful to identify the critical success factors of the most successful cases for the implications of the FCS curriculum process for Korea.

The key factors to moving toward a critical science perspective, curriculum development, and implementation work included: the revolution of thinking about FCS based on Brown's philosophical studies, the inauguration of a new curriculum by the Department of Education, federal vocational education grants, the openness to new curricular perspectives by state FCS administrators, and the collaboration of universities for a professional development program for FCS teachers (Thomas, *et al.*, 1999). Among the critical success factors that the researchers mentioned, this section addressed Brown's contribution to the foundation of an FCS curriculum with a critical science perspective, the effort of state FCS supervisors, and teacher training programs that resulted from the collaborative work of professors and administrative personnel.

Foundation of the FCS curriculum with a critical science perspective derived from Brown's work The FCS curriculum as a critical science-based approach was based on Brown's intellectual and professional work. The two educational perspectives in FCS include the empirical-rational science-based perspective and the critical science-based perspective (Brown, 1978; Brown & Paolucci, 1979; Montgomery 2003, 2006). Historically, empirical-rational science provided the foundation for FCS education; however, FCS education has been moving toward a more critical science-based approach (Montgomery, 2008).

Starting with the *Vocational Education Act of 1917*, the 1976 *Vocational Education Amendment* encouraged parenting, nutrition, and consumer education as required subjects for funded programs in the FCS. The act served as a force for curricular initiatives and/or renewal concerning delivered courses (Smith, 2004). Two years later, Brown (1978)

claimed that the philosophical basis of the FCS should be scrutinized. She proposed a different curriculum approach using a critical science perspective. One year later, Brown and Paolucci (1979) clarified the basic mission and philosophy of FCS in their publication, *Home economics: A definition* that gave a more comprehensive view of FCS. Brown (1980) did a further analysis for FCS education in her publication, *What is Home Economics Education?*

These documents were valuable in establishing the foundation of critical science in FCS. Brown reviewed the FCS curriculum and argued for a practical science curriculum rather than the traditional technical orientation of FCS (Smith, 2004). The practical approach would help students learn to think critically and take actions by exploring practical problems (Brown, 1978). Since then, a number of scholars have conducted research focused on critical science perspectives and more FCS programs have increasingly employed the critical science perspective (Smith, 2004).

The efforts of state FCS supervisors The role of FCS administrators in state departments of education was significant to initiate, implement, and continue the new curriculum. Reichelt (2001) identified various implementation strategies by examining how the states worked to integrate the National Standards for FCS education into local programs. Generally, the effort started within the state policy context of educational reform and accountability. These administrators launched the new curriculum starting with the formation of curriculum teams that typically included state level personnel, university teacher educators, and secondary FCS teachers. The team was in charge of developing a state FCS curriculum (Reichelt, 2001).

Mileham, a state FCS administrator, attested to the process of moving toward a critical science perspective curriculum in FCS over nine years in Oregon (Vail, *et al.*, 1999). The process has three phases: the decision of change, the commitment to change, and the management of the uncertainty of change. The administrator recognized that they need to prioritize the needs and concerns of teachers for a

successful transition (Vail, *et al.*, 1999).

Arendt, *et al.* (2000) reported several challenges that the state department of education faced. First, state leaders had to compare the present state curriculum guidelines with National Standards in terms of the unique educational transformation context of the state. A second challenge involved building support for the standards among stakeholders including teachers, teacher educators, parents, community members, business, and industry partners. Each of these groups must understand the importance of standards and the relationship of the group in the implementation of standards. Consequently, the teachers faced many challenge as they design instructional strategies to help students achieve expectations during the implementation of standards. Teachers need to be provided high-quality curriculum materials and professional development opportunities instead of the traditional one-shot in-service training (Arendt, *et al.*, 2000).

The availability of federal vocational education funding is essential for all steps of the curriculum. Acts play the significant role by providing federal assistance to states to facilitate cooperation with the states in the preparation of teachers of vocational subjects and to provide appropriate funding. The *Vocational Education Act of 1917* (or the *Smith-Hughes Act*) and the *Carl D. Perkins Act of 1997* (or *Perkins III*) have promoted vocational training in the areas of agriculture, FCS, and trade industrial education.

Teacher training programs as a result of collaboration of professors and administrative personnel Nebraska had a learning communities project as a model for an FCS in-service teacher program in 1993. This program was developed to change the curriculum orientation of teachers from the traditional or technical method of teaching to the critical science approach. The program provided an opportunity for FCS teachers to be involved in learning communities. It also provided a safe environment for teachers to learn about curriculum orientation, to reflect on personal beliefs, to practice new techniques, and to make changes (Shelton, 2004).

Ohio began to establish a statewide network of

teacher-leaders (C. K. Fox, 2001). This was to provide opportunities for teachers to evaluate individual practices as well as plan ways to generate and accomplish program goals. It also provided experiences in learning environments like those predicted for students in upcoming new programs. Teacher-leaders had been engaged in helping other teachers enhance practices through group or community-building activities in their own locales. Curriculum resource guides were developed through the collaborative work of teams of teachers to help individual teachers make the transition from a technical to a problem-based orientation (C. K. Fox, 2001; Thomas, *et al.*, 1999).

The Virginian FCS program reform began in 1990 with the meeting of a state restructuring task force, a literature review, and visits to other states with similar contexts. In 1992, the Virginian FCS program revised its vision and mission statement to align with national statements. The state training team delivered programs through small local meetings, regional meetings, state conferences, university courses, and other applicable experiences (Thomas, *et al.*, 1999).

Missouri prioritized the revision of the document that defined the state programs with changing the name, vision, and program philosophy. Then they considered establishing professional development programs to help teachers make this transition. An effort to disseminate the change in program philosophy was to buy curriculum guides and distribute them to teachers. Another strategy was to begin building an infrastructure to support and continue with the changes (Thomas, *et al.*, 1999).

CONCLUSION

This study examined the FCS National Standards with some examples at the state level, analyzed previous studies relevant to curriculum implementation in the USA, and analyzed critical success factors in moving toward the new perspective curriculum in exemplary states. The critical success factors identified here can be employed as an informative guide for future development and the

implementation of an FCS curriculum in Korea.

Summary

The ongoing efforts to fulfill the mission of the FCS through National Standards have resulted from the continuous debates and agreement based on enthusiasm and the commitment of practitioners of this field since the beginning of FCS. The process, in which the FCS discipline struggled to make clear the identity and image as well as to find the mission and vision, produced the FCS National Standards in 1998 and 2008 in the USA.

Sates have voluntarily adopted National Standards; however, state curriculum documents and previous research studies indicated that the National Standards was employed with some modifications in accordance with each state educational context. Many FCS state administrators agreed that the National Standards was a helpful tool for public relations and for promoting a positive image of FCS as a discipline. In addition, National Standards adequately contributed to curriculum development.

The findings identified critical success factors at the federal and state levels in integrating National Standards into local programs. The critical success factors at the federal level are Brown's philosophical works, the foundation of the FCS curriculum with a critical science perspective, and the establishment of the National Standards according to the philosophical works and perspectives. The critical success factors at the state levels include the openness of state FCS administrators to educational reform, the construction of infrastructure to support educational reform, and the commitment of university professors to developing a teacher-training program.

Discussion

The implications for Korean curriculum design and implementation need to be discussed. Curriculum processes have four interrelated process phases including curriculum conceptualization, development, implementation, and evaluation (Laster, 1986). At the FCS curriculum conceptualization stage, specialists who are familiar with the philosophical basis of FCS education need to play a key role in building the curriculum orientation. At this time, the process of

reaching a consensus of the nature and mission of FCS in the USA is an exemplary case.

FCS experts have incorporated a philosophical discussion to search for identity and its place in society through their regular and special meetings under the leadership of the *American Home Economics Association* (AHEA) in the USA. To celebrate the 50th anniversary of the AHEA in 1959, they have performed many studies on the content structure of FCS education, disciplinary structure of the FCS, and the nature of the FCS (Vincenti, 1997). In 1961, the AHEA held a national conference in French Lick Indiana to develop outlines of the basic concepts and generalizations in the subject matter content within the field of the FCS (Vincenti, 1997). In 1973, the *Eleventh Lake Placid Conference* developed a consensus among members for the future direction of FCS. There was also a national meeting in Scottsdale Arizona to culminate the work to identify the mission, breadth, scope, and name of the FCS in 1993 (Vincenti, 1997).

We lack long-term established procedures to develop and revise the FCS curriculum in Korea. Therefore, the discussion on the goals and content structures in the curriculum revision has been carried out in a temporal way (Yoo, 2003). One of the perennial problems in curriculum development is that the FCS curriculum revision has not been considered from the comprehensive perspective, but has been biased by the specialties of the developers and reviewers.

It was in 2005 that the development of 2007 revised FCS curriculum was initiated under the leadership of *Korean Home Economics Education Association* (KHEEA) for the first time (Yoo, 2006). This was a good example to establish a collaborative and conceptual framework in developing an FCS curriculum with the support of the academic association. This practice has to be employed in future curriculum revisions. The KHEEA organized a Task Force team and asked the team to discuss the conceptualization of the FCS curriculum and to lead in the development of an FCS curriculum in 2005. A practical problem focused curriculum approach was partially adopted in a model of the FCS curriculum proposed by the Task Force team (Yoo, 2006).

The FCS curriculum development stage in Korea has focused on the selection of subject matters regardless of the discussed conceptual framework. While some studies investigated the curriculum perspective of FCS teachers in Korea (Chae, 1996; Choi, Chae, & Park, 2009; Park & Yoo, 2001; Ryu, 1998), these research findings were not considered in the development stage. It is essential to establish a systematic approach to connect the conceptual framework to the concerns and perspectives of FCS teachers as well as the selection of subject content.

At the implementation stage, FCS administrators from the education authorities should understand and interpret the FCS curriculum orientation and hold the leadership responsible for rallying the learning community that consists of teachers, teacher educators, and university content specialists. A teacher-leader institute or mentor training program, as well as teacher training programs established in Ohio, Virginia, and Missouri, are good models for teacher quality improvement. If teachers were not educated for the curriculum, the newly adopted curriculum would fail in implementation due to the inertia of the teachers stuck to their own knowledge (M. -H. Park, 2006). Yoo (2006) found that FCS teachers and FCS teacher educators lacked understanding of the newly adopted curriculum or the practical problem focused curriculum. These studies showed the need for curriculum training for in-service teachers and teacher educators.

The capacity and leadership of supervisors in the whole curriculum process were in essential part of the critical success factors. They initiated the process, promoted the participation of experts and teachers, networked the key stakeholders, and supported implementation at the school level. Furthermore, they bridged the gap between the concepts of National Standards and state programs by reflecting upon the local context and the concerns of FCS teachers. However, the administrative experts of FCS education were lacking in national and local education offices in Korea.

Suggestions for Future Research

The Following suggestions for future research

emerged from the results and limitations of this study.

This study focused on examining how the perspective of FCS curriculum in the USA changed and how the challenges through the whole curriculum process were met by some exemplary states during the transition period. Therefore, an investigation of the current state of FCS education in the USA may be a future research topic to mitigate the limitations of this current study.

This study focused on the analysis of the FCS curriculum and literature related to the successful implementation of an FCS curriculum in several states in the USA to understand the critical success factors. The contrast of the successful cases against the unsuccessful ones can be the focus for further research to supplement the limitations of this study.

Among the stages of the curriculum process, the researchers of an FCS curriculum need to pay more attention to FCS curriculum evaluation. Kwon (2003) evaluated how the 7th FCS curriculum was operated in schools by using context evaluation, input evaluation, process evaluation, and product evaluation (or CIPP model). Even though she identified the criteria for evaluating the FCS curriculum systematically, it was limited to a one-province case. Therefore, a national level FCS curriculum evaluation with nationwide sample cases using the CIPP model is required of by future research. The models for FCS curriculum evaluation should be discussed and developed more.

The FCS supervisors at the local education offices play a key role to implement the curriculum and maintain successful practices, therefore case studies to investigate and analyze their jobs concerning the FCS curriculum in Korea may be prospective research topic.

REFERENCES

- American Association of Family and Consumer Sciences (2010, October 28). *National Standards for Family and Consumer Sciences Education*, from <http://www.doe.in.gov/octe/facs/NASAFACS/index.html>.

- Arendt, C., Boggs, H., & Glasscock, S. (2000). Strategies for state leadership. In A. Vail, W. S. Fox & P. Wild (Eds.), *Leadership for Change: National Standards for Family and Consumer Sciences Education* (Vol. Year book 20, pp. 219-230). Peoria, IL: Glencoe/McGraw-Hill.
- Antuna, A. (2010). *The extinction of home economics: A study of Family and Consumer Sciences*. Unpublished Dissertation. Capella University.
- Ashby, A., Conkin, M. & O'connor, E. (2000). Implementing process in FACS classrooms. In A. Vail, W. S. Fox & P. Wild (Eds.), *Leadership for Change: National Standards for Family and Consumer Sciences Education* (Vol. Year book 20, pp. 208-218). Peoria, IL: Glencoe/McGraw-Hill.
- Baldwin, E. E. (1989). A critique of home economics curriculum in secondary schools. In F. H. Hultgren & D. L. Coomer (Eds.), *Alternative modes of inquiry in home economics research* (pp. 236-250). Peoria, IL: Glencoe Publishing, Inc.
- Baldwin, E. E. (1991). The home economics movement: A "new" integrative paradigm. *Journal of Home Economics*, 83(4), 42-49.
- Baldwin, E. E. (1999). Family and consumer sciences curriculum: What ought to be? In J. Johnson & C.G. Fedje (Eds.), *Family and Consumer Sciences curriculum: Toward a critical science approach* (pp.32-44). Peoria, IL: Glencoe/McGraw-Hill.
- Botine, K. (2010). National Standards for Family and Consumer Sciences education: Summary of changes between original standards and the 2008 re-validation, from http://www.doe.in.gov/octe/facs/NASAFACS/docs/National_FACS_Standards_1998-2008_Comparison.pdf.
- Brown, M. M. (1978). *A conceptual scheme and decision-rules for the selection and organization of home economics curriculum content*. Madison, WI: Wisconsin Department of Public Instruction.
- Brown, M. M. (1980). *What is home economics education?*. Minneapolis, MN: University of Minnesota.
- Brown, M. M. & Paolucci, B. (1979). *Home economics: A definition*. Washington, DC: American Home Economics Association.
- Chae, J. (1996). *Assessment of Korean secondary school Home Economics curriculum with implications for change*. Unpublished dissertation. The Ohio State University. Columbus, OH.
- Chae, J., Yoo, T., & Lee, S. (2010). *Social Contribution and Vision of Home Economics Education*. Paper presented at the summer meeting of the Korean Home Economics Education Association, Seoul.
- Choi, Y., Chae, J., & Park, M. (2009). A study on the curriculum perspectives of secondary school Home Economics teachers and the Home Economics teacher efficacy. *Journal of Korean Home Economics Education Association*, 21(1), 89-106.
- Fox, C. K. (2001). *Teacher efficacy, professional development, professional practices, and critical science-based FCS curriculum implementation*. Unpublished Dissertation, The Ohio State University. Columbus, OH.
- Fox, W. S. (2000). National Standards Model. In A. Vail, W. S. Fox & P. Wild (Eds.), *Leadership for Change: National Standards for Family and Consumer Sciences Education* (Vol. Year book 20, pp. 11-19). Peoria, IL: Glencoe/McGraw-Hill.
- Grogan-Faircloth, E., Smith, B., & Hall, H. (2001). FCS teachers' stages of concern regarding national standards. *Journal of Family and Consumer Sciences*, 93(4), 29-32.
- Hetherly, J. A. (2000). Influencing Public Policy. In A. Vail, W. S. Fox & P. Wild (Eds.), *Leadership for Change: National Standards for Family and Consumer Sciences Education* (Vol. Year book 20, pp. 264-271). Peoria, IL: Glencoe/McGraw-Hill.
- Hultgren, F. H. (1989). Using interpretive-critical inquiry perspective to study critical thinking in Home Economics. *Journal of Vocational Home Economics Education*. 7(1), 10-35.
- Kim, D. (2010). 2009 revised curriculum: The concepts, advantages, disadvantages, and suggestions. Paper presented at Educational policy conference entitled *How should the problems on the implementation of the revised 2009 curriculum be solved?* on July 24, 2010.
- Kwon, J. (2003). *An evaluation of the 7th Technology and Home Economics curriculum implementation in the mid-*

- dle schools: Focused on the Home Economics area. Unpublished Thesis. Korea National University of Education, Chung-Buk, Korea.
- Laster, J. F. (1986). Introduction. In J. F. Laster & R. E. Dohner (Eds.), *Vocational Home Economics curriculum: State of the field*. Illinois: Bennett & McKnight Publishing Company.
- Lee, C., Choi, Y., & Yoo, T. (2001). *A study on the systematization of goals and contents of school Practical Arts, Technology, and Home Economics (I)*. Research report RRC 2001-2. Korea Institute for Curriculum and Evaluation.
- Lee, Y., Park, M. -H., Wang, S., Jun, M., Chung, M., & Chae, J. (2005). *An alternative curriculum model of Home Economics for curriculum revision*. Paper presented at the summer meeting of the Korean Home Economics Education Association.
- Lichty, M. E. (1996). *Obstacles and supporting factors involved in teacher change*. Unpublished Thesis, University of Nebraska-Lincoln. Lincoln, NE.
- Miller, S. W. & Tulloch, C. R. (1989). *Teaching basic skills through home economics: Instructional activities for home economics students*. Washington, DC: Home Economics Education Association.
- Minnesota Department of Education (2004). *Chapter Nine: Frameworks for Family and Consumer Sciences Education*, from http://education.state.mn.us/MDE/Academic_Excellence/Academic_Standards/Family_Consumer_Sciences/index.html.
- Montgomery, B. (1999). Continuing concerns of individuals and families. In J. Johnson & C. Fedje (Eds.), *Family and consumer sciences curriculum: Toward a critical science approach* (pp. 80-90). Peoria, IL: Glencoe/McGraw-Hill.
- Montgomery, B. (2003). Reasoning for action in consumer education. *Journal of Consumer Education*, 21, 1-11.
- Montgomery, B. (2006). Rethinking sewing as an educational experience in middle and high schools. *Journal of Family and Consumer Sciences*, 98(1), 47-52.
- Montgomery, B. (2008). Curriculum Development: A Critical Science Perspective. *Journal of Family and Consumer Sciences*, 26, 1-16.
- Montgomery, B., Brozovsky, S., & Lichty, M. (1999). Taking action regarding change. In J. Johnson & C. Fedje (Eds.), *Family and consumer sciences curriculum: Toward a critical science approach* (pp. 226-237). Peoria, IL: Glencoe/McGraw Hill.
- National Association of State Administrators of Family and Consumer Sciences [NASAFACS] (1998). *National Standards for Family and Consumer Sciences Education*. Decatur, GA: Vocational-Technical Education Consortium of States.
- National Association of State Administrators of Family and Consumer Sciences [NASAFACS] (2008). *New Family And Consumer Sciences National Standards*, from http://www.alcareertech.org/files/new_national_family_and_consumer_sciences_standards.doc.
- Nebraska Department of Education (2005). *Nebraska Family and Consumer Sciences Essential Learnings*, from <http://www.education.ne.gov/HSR/documents/StudentDemosofELs.pdf>.
- Nebraska Department of Education (2010). *Family and Consumer Sciences: Links to standards report*, from http://links2learn.education.ne.gov/reports/linkstomany_fcs.pdf.
- Ohio Department of Education (2007). *Family and Consumer Sciences Content Standards with Academic Content Standards in English Language Arts, Mathematics, Science and Social Studies*, from <http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?Page=3&TopicRelationID=1754&Content=87968>.
- Ohio Department of Education (2009). *Family and Consumer Sciences 2009-2010 Program Guidelines*, from <http://www.ode.state.oh.us/GD/DocumentManagement/DocumentDownload.aspx?DocumentID=68770>.
- Park, M. -J. (2006). *A study on Development Strategies for the Future Home Economics Education*. Unpublished Dissertation. Korea National University of Education, Korea.
- Park, M. -H. (2006). A study on the content innovation of Home Economics curricula reflected in social change and need. *Journal of Korean Home Economics Education Association*, 18(1), 77-93.

- Park, M. J., & Yoo, T. (2001). A study on the perspectives on curriculum of middle school Home Economics teachers and Technology teachers by socio-demographic variables, *Journal of Korean Home Economics Association*, 39(11), 161-174.
- Pennsylvania Department of Education (2010). *Curriculum Framework*, from <http://www.pdesas.org/module/sas/curriculumframework/>.
- Pennsylvania Department of Education (2002). *Academic Standards for Family and Consumer Sciences*, from <http://www.pafcs.org/mc/page.do?site PageId=43546&orgId=pafcs>.
- Reichelt, S. A. (2001). *Family and consumer sciences education national curriculum standards: Implementation plans for reform*. Unpublished Dissertation, Iowa State University, Ames, Iowa.
- Ryu, S. (1998). *Curriculum orientation and professional teaching practices reported by Korean secondary school Home Economics teachers and teacher educators*. Unpublished Dissertation. The Ohio State University. Columbus, OH.
- Shelton, P. J. (2004). *Family and Consumer Sciences curriculum change: A follow-up study*. Unpublished Thesis. The California State University, Long Beach, CA.
- Smith, B. P. (2004). FCS Curriculum Development and the Critical Science Perspective. *Journal of Family and Consumer Sciences*, 96(1), 49-51.
- Smith, B., Hall, H., & Jones, K. (2001). National standards for family and consumer sciences education: Perceptions of parents, professionals, and vocational administrators. *Journal of Family and Consumer Sciences*, 93(4), 49-57.
- Stage, S. (1997). Home economics: What's in a name?. In S. Stage & V. Vincenti (Eds.), *Rethinking home economics: Women and the history of a profession*. (pp. 1-13), Ithaca, NY: Cornell University Press.
- Thomas, R., Baum, S., Laster, J., & Fedje, C. (1999). Emerging practices: A view from three states. In J. Johnson & C. Fedje (Eds.), *Family and consumer sciences curriculum: Toward a critical science approach* (pp. 238-258). Peoria, IL: Glencoe/McGraw Hill.
- Vail, A., Mberengwa, L., Parmell, L. M., Kastl, R. M., Arner, J., McClelland, J., & Mileham, C. (1999). Reflecting on change. In J. Johnson & C. Fedje (Eds.), *Family and consumer sciences curriculum: Toward a critical science approach* (pp. 259-283). Peoria, IL: Glencoe/McGraw Hill.
- Vincenti, V. (1997). Home Economics moves into the twenty-first century. In S. Stage & V. Vincenti (Eds.), *Rethinking home economics: Women and the history of a profession*. (pp. 301-320), Ithaca, NY: Cornell University Press.
- Wisconsin Department of Public Instruction (1997). *Wisconsin's Model Academic Standards for Family and Consumer Education*, from <http://dpi.state.wi.us/standards/index.html>.
- Yoo, T. (2003). A basic study for the development of secondary Home Economics curriculum on characteristics and contents structure of Home Economics, literacy through Home Economics education (I): A delphi study. *Journal of Korean Home Economics Association*, 41(10), 149-171.
- Yoo, T. (2006). The nature of practical problem focused Family and Consumer Sciences curriculum. *Journal of Korean Home Economics Education Association*, 18(4), 193-206.
- Yoo, T., & Lee, H. (2009). Effects of Practical Reasoning Instruction on Problem Solving Ability. *Journal of Korean Home Economics Education Association*, 21(2), 203-215.

Received October 4, 2010

Revised November 29, 2010

Accepted December 12, 2010