SPECIAL CONTRIBUTION

National, State, and Professional Conditions in the United States: What is the Impact on FCS Teacher Training?

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In Japan, the home economics curriculum content and learning objectives are revised about every 10 years at the national level according to social and educational changes (Ueno, 2004). In the United States, family and consumer sciences (or FCS) curriculum and teacher training undergo frequent but irregularly timed modifications prompted by national, state, and professional trends and conditions. In both countries, changes are implemented with the hope of further helping individuals and families survive and thrive with both perennial and contemporary challenges that confront them. However, FCS expertise is sometimes overlooked in the flux of educational reforms and other issues, reducing opportunities for students to learn valuable skills needed to create a high quality life (Makino, 2004; Thompson, 1986; Ueno, 2004). We can learn from each other ways to best position home economics/FCS education as a dynamic field that promotes good health and wellbeing, cooperation, management skills, and wise thinking-simultaneously empowering individuals to make important contributions for family betterment, civic progress, and global understanding.

The purpose of this paper is to describe how FCS teacher training is affected by current conditions in the United States. First, I will summarize important conditions at various levels, starting with national social trends and legislation and followed by state and professional conditions. Then, I will discuss implications of these conditions for FCS teacher training in terms of curriculum and practical reasoning/critical thinking processes. Next, considerations for the future, including teacher training practices and research needs, are described. Finally, just a few examples of how FCS teachers have creatively put their university training into action in their communities will be provided. Throughout the paper, I'll suggest how current trends could potentially affect FCS teacher training in both positive and negative ways.

National Conditions

There is no national curriculum for FCS in the United States, but the government does have strong influence through its policies and funding formulas. It is different from Japan, where all students must take home economics, in that FCS is not a school requirement across the U.S. States and local school districts retain options and influence to determine what, if any, FCS programs and courses are offered and required based on their particular needs, values, politics, and philosophies. The result is that the existence and types of FCS offerings vary considerably from one location to another. At the same time, certain social conditions do lead to some commonality in FCS educational goals.

Social Trends: Need for FCS

A number of social trends in the United States affect FCS teachers and teachers of all subjects. Too many middle and high school students cannot adequately comprehend or express themselves through the written word. Despite increasing dependence on education for success in life, test scores of basic knowledge and skills often are somewhat lower in the U.S. compared to other nations. Not surprisingly, this trend has led to a national push devoted to reading, math, science, and other academic programs of students, making it more difficult for FCS to remain visible and maintain its unique identity. Violence in schools occasionally erupts, but more typical behavior problems relate to fighting, disrespect of teachers and peers, or disruptive behaviors. Alcohol, drug abuse, neglect, emotional abuse, and other serious problems plague too many students (U.S. Department of Health and Human Services, n.d.). The U.S. has many types of family structures such as divorced and single parent families, stepfamilies, dual income families, and teenage or older unwed parents. Whereas some of these trends are unique to the U.S., other trends seem to be shared by families in the U.S. and Japan. For example, Ueno (2004) notes that the hectic lives of children, the new power of the media and Internet, and loss of traditional communities are hindering the quality of interpersonal relationships. Each circumstance affects the ideas and behaviors of students when they come to school.

Students in the U. S. also have a variety of needs that affect their ability to succeed with a regular curriculum: learning disabilities, "attention deficit disorder," conduct disorder, depression, and poverty to name only a few (U.S. Department of Education, n.d.). All students in the U. S. have a right to education, and students with special needs often are enrolled in FCS classes because of the helpful and practical nature of the subject. Students are becoming increasingly diverse, and FCS teachers interact with youth who come from many parts of the world and sometimes do not speak English. My colleague, Dr. Barbara Allison, and I (2006) surveyed 81 FCS teachers who together had students from over 37 countries and who spoke more than a dozen languages other than English. Seventy percent of teachers had to adapt teaching strategies by using more visuals, demonstrations, modified assignments, applied evaluation methods, and peer teaching.

Teaching FCS in the United States has become quite challenging because of these complicating trends. As Vincenti and Turkki (2008) noted, "Change is our challenge" (p. 50). It can seem almost impossible for a teacher to become an expert in every issue that affects students, and the role of FCS can be weakened amidst the rapid current of changes in modern societies. On the optimistic side, despite all the pressures, creative and caring FCS teachers always make an impac. Ueno (2004) reports on the concept of IKIRU-CHIKARA, broadly understood as students learning to act for themselves and to create their own lifestyles, as underlying school reform in Japan. Laster (2008) describes a similar concept of critical literacy and practical problem solving underlying reform in the U.S. In both nations, teachers have special FCS expertise in the concepts and processes that enable students to create their own lives and contribute to their surroundings (Arai, 2004; Laster, 2008; Makino, 2004).

Legislation and Career Framework: Changes and Concerns

FCS is one subject (among others such as business education, agricultural education, etc.) under the funding and policy-making auspices of a U.S. Department called Career and Technical Education (CTE). Recent 2006 legislation directed government support toward CTE programs that are designed and implemented around 16 Career Clusters. These Career Clusters are broad occupational groupings of specific industry based jobs and provide an organizing framework for CTE programs in schools. Each state then typically determines more specialized Career Pathways within each Career Cluster, based on state economies and needs. Career Pathways typically consist of a series of four courses over four years of high school that build high skill for a particular career field, often leading to industry credentials for work directly after high school

or in-depth preparation for post-secondary education.

A momentous question and serious concern is: Where does FCS fit? There are no Career Clusters specifically labeled FCS or focused on unpaid work of the family. Most FCS courses traditionally have been linked to personal and family development, and not industries. Thus, state supervisors, teachers, and teacher educators have had to think creatively to position FCS courses into a new framework of Career Clusters and Pathways. Some FCS courses have been discontinued or altered, and other new courses have been created.

FCS is now being reorganized within a variety of Career Clusters, with "Human Services" as the most common cluster for early childhood services and other FCS human development programs. An FCS culinary arts pathway also seems to fit naturally within a "Hospitality and Tourism" Cluster. Early childhood fits into "Education & Training" and food/nutrition areas fit into "Health Science." Florida has created new programs in design services to fit the Career Cluster of "Arts, Technology and Communications." All people in all careers benefit from wellness, family and work balance, character development, critical thinking, relationship building, and other core strengths of FCS, so some states and schools require a personal development FCS course within many Career Pathways.

When FCS teachers were surveyed about their perceptions of the Career Cluster framework (Alexander & Wragg, 2007), they reported the following disadvantages: the fit is not always clear, not all administrators recognize the essential nature of FCS knowledge for all of career and life success, and many teachers do not know enough about career aspects of FCS. Benefits included: a new image, visibility, status as part of the nation's economic future, and national impact.

Thinking optimistically, teachers have a new CTE stage on which to emphasize the unpaid work of the family and the worker as a relational being. FCS has the opportunity at this very moment to infuse career and work education with core qualities of meaningful personal lives, strong relationships, and autonomous action for happiness. Still, there are potentially damaging possibilities that need vigilant monitoring and action. As stated by Vincenti and Turkki (2008), "The vocational perspective prepares students for the workplace 'as it is' in terms of its values, power relationships, assumptions, and use of humans instrumentally" (p. 37). Schools that seek or need federal money thus might promote only those FCS courses that are restricted to job training. A lack of FCS teachers trained to understand career development along with family development could lead to the closing of some FCS programs. If the family-focused nature of FCS is weakened, the field might even be changed into something quite different. A challenge is to remain true to the FCS transformative mission to empower individuals and families for confidence in their abilities, practices of efficacy, and social change (McGregor, 2008).

State Influence on Teaching Certificates

Teachers obtain a certificate or license from the state in which they will work, but there are many commonalities. This paper discusses Florida as one example of how states affect teacher licensure.

Florida: Indicators of Teaching Ability Called Accomplished Practices

Legislators in Florida determined that all new teachers must demonstrate 12 abilities they named "Accomplished Practices." The first Accomplished Practice, Subject Matter Knowledge, is the only one that distinguishes FCS from other teachers. The remaining 11 Accomplished Practices must be demonstrated regardless of subject and grade level taught. Below is a list of the Accomplished Practices, some indicating traditional expectations for teachers and other indicating expectations that teachers must be able to manage modern issues in classrooms.

- 1. Subject Matter Knowledge
- 2. Planning

- 3. Critical Thinking
- 4. Learning Environments (goal oriented, safe, supportive of students)
- 5. Role of the Teacher (leadership, participatory, creative)
- 6. Ethics
- 7. Continuous Improvement
- 8. Assessment
- 9. Communication
- 10. Diversity
- 11. Human Development (needs of students a different levels)
- 12. Technology

All university students in a teacher education program are regularly monitored and evaluated on these 12 Practices; no one can graduate from a program of any subject or level without being able to demonstrate varied examples of competence within each ability area. For example, to prove competence in "Continuous Improvement" (#7), a person in FCS teacher training might take a number of actions: attend professional meetings regularly and increase the degree of active participation by running for office, use constructive criticism to improve, and seek out new experiences beyond those required. Teacher educators in Florida universities made considerable effort to redesign courses, units in courses, field experiences, and assignments/evaluative methods to align with the 12 Accomplished Practices. Some of the positive outcomes of this effort are that teacher education programs are more consistent, goals are focused, and common understanding is promoted among prospective teachers.

Like many states, Florida also offers an alternative route to becoming a teacher that bypasses university teacher education programs. Any person with a baccalaureate degree in any major can apply to the state for a teaching certificate in one or more of an array of possible subjects. Such a person interested in obtaining a license to teach FCS would need 30 semester credit hours in FCS, but these credits would not need to be in the varied areas as required in the university FCS teacher training program. For example, a person with an exclusively food science degree could become certified to teach FCS. This might be advantageous if the person was hired to teach foods and nutrition courses, but it could be very problematic for the person to teach clothing, family development, or housing without background knowledge. Anecdotal evidence indicates that alternatively certified FCS teachers have had degrees in areas such as art, biology, or history; some need extensive help to understand the content and skills they are expected to teach and how to teach them. Others can do well if they are willing to seek out further knowledge.

Prospective teachers seeking alternative certification in Florida also are required to take two teaching methods courses and several other courses that provide depth and ability to meet selected Accomplished Practices. This additional training can be provided in varied ways: traditional university courses, school districts, apprenticeship under an experienced mentor, or online courses after being hired on a provisional basis. Some teacher educators and parents are concerned that alternatively certified teachers come through an "easy" route and do not have depth of understanding needed for rigorous instruction. Research shows conflicting results about the benefits and pitfalls of alternative certification. Whereas some experts argue that it generates low standards and minimal mentoring, others note that it encourages talented specialists to share their experience and knowledge with students (Powers, 2008).

Professional Trends Toward Process and Critical Thinking

The FCS/home economics profession around the world is increasingly focused on critical thinking processes and developing ways to teach problem-solving regarding the complex issues facing all individuals and families (e.g., Aoki, 2004; Arai, 2004; Benn, 2004; McGregor, 2004). In

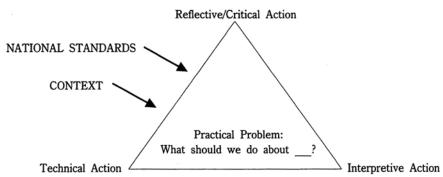
the U.S. two sets of National Standards—one for learners taking FCS courses and one for teachers of FCS—are increasingly used for guidance. Although these Standards are not mandatory and are flexibly adaptable to local interests, they are increasingly used to bring commonality for FCS education across the 50 states (Smith, 2004; Wild, 2004).

National FCS Standards for Student Learning

National Standards for Family and Consumer Sciences of 1998 were updated in 2008. Revised National Standards¹ continue a long tradition of empowering students for personal responsibility, optimal wellness and nutrition, resource management, family and work balance, critical and creative problem solving, effective providers and consumers of goods and services, interpersonal communication, and appreciation of human worth. One significant update in 2008 was the addition of an Overarching Standard called Reasoning for Action. Given the fluctuations, pace, and complexity of modern society, students need to develop abilities to clarify problems, analyze and synthesize information, reason about ethical dimensions of problems, take multiple perspectives, and collaborate for solutions. New problems and information continually emerge, implying that education should focus on developing process-oriented knowledge and skills such as those within the Reasoning for Action standard.

The comprehensive Reasoning for Action goal is that the learner: "Uses reasoning processes, individually and collectively, to take responsible action in families, workplaces, and communities." The Reasoning for Action standard also contains its own set of more detailed and measurable competencies that are applicable in all areas of FCS. For example, one specific competency (of a total of 34) listed under Reasoning for Action is "Describe recurring and evolving concerns facing individuals, families, workplaces, and communities." Another example is "Synthesize information from a variety of sources that are judged to be reliable."

Reasoning for Action can help learners determine what to do about "practical problems" (Brown & Paolucci, 1979) in everyday life. Three systems of action that individuals and families use to address practical problems are incorporated into the Reasoning for Action standard. 1. Technical action emphasizes knowledge, facts, and skills (knowing nutrients contained in a food and preparing that item, describing developmental tasks of two-year-olds, or explaining ways to save money and live within a budget). Technical action is essential for successful life, and historically formed the basis of FCS education. However, technical action has a supportive rather than a central role in solving practical problems. 2. Interpretive action emphasizes interacting with other people through writing, reading, speaking, listening, and other forms of communication. Interpretive action is used when individuals and families share ideas, seek to understand how other people view issues and problems, and consider consequences of choices. 3. Reflective or critical action is a key component in addressing problems. Reflective actions include critique of root issues and causes of problems, posing and critiquing various alternatives, and taking the best action.



The Reasoning for Action standard defines family and consumer sciences education by connecting the three systems of action with FCS content and contextual conditions (Fox & Laster, 2000). The scheme shown above can be used with the Reasoning for Action competencies to bring key aspects of each system to bear on selected topics. An example is given in the Table below.

Table

Example of Reasoning for Action in Three Systems of Action

Practical Problem: What should we do about a sustainable environment?

Reasoning Competency: "Synthesize information from a variety of sources that are judged to be reliable." The task for the FCS teacher would be to help students find reliable sources and then combine the information in a comprehensive useful way.

- 1. The technical system directs students to factual or procedural information.
 - a. Existing scientific studies showing the health effects of home product chemicals, plastics, and other materials on families and communities.
 - b. Gathering facts from their own habits: studies of personal and family habits of recycling vs. waste, monetary effects of recycling, time effects.
 - c. Learning how to make environmentally friendly products that can substitute for purchased products that contain chemicals. Learning how to recycle.
- 2. The interpretive system directs them to dialogue, meanings, values, and goals.
 - a. Discussions with family members, friends, and community leaders about the value of a sustainable environment, reasons for why it should or should not be a concern.
 - b. Clarification of the values of a sustainable environment: health, aesthetic, economic, pragmatic, safety, education, leisure, etc.
 - c. Determination of social and personal goals for improving the environment.
- 3. The reflective/critical system points toward action toward beneficial change.
 - a. Improvement personal and family habits: reducing chemical use, proper disposal of home products, recycling more, etc.
 - b. The restructuring of certain community habits: setting up recycling areas at workplaces and schools, advocating for and initiating environmentally friendly policies.

Synthesis Project: An FCS class could synthesize the above information in several possible ways: Proposing and designing a school program of recycling or other aspect of sustaining the environment, sponsoring a panel discussion relating personal habits with the nation's natural environment, economy, and education system, or creating informational posters to display throughout the school and local businesses.

Reasoning for Action is grounded in the belief that concepts and processes used for reasoning can be learned and applied to solve complicated problems in real life. This standard is flexible to meet the needs of students regardless of age, gender, interests, cultural background, disabilities, etc. The Reasoning for Action standard encourages high-quality reasoning among individuals, as well as reasoning with others through dialogue, to enable everyone to have a voice in creating policies that benefit families (Fox & Laster, 2000; Johnson & Fedje, 1999; Plihal, Laird, & Rehm, 1997).

Set of National Standards Guiding Teacher Training

In 2004, FCS National Standards for Teachers of FCS² were formed to "provide a national model for what a beginning teacher in family and consumer sciences should know and be able to do" (Fox, Stewart, and Erickson, 2008, p. 1). They are intended to guide teacher training and research by focusing on necessary knowledge, skills, and dispositions (Fox, Stewart, & Erickson,

2007). Four standards relate to foundational content and six standards relate to processes of pedagogy and professionalism.

<u>Content</u> These content standards focus on subject matter expertise and are valuable in preparing teachers to become certified in all 50 states. The four standards are:

- 1. Career, Community, and Family Connections
- 2. Consumer Economics and Family Resources (includes living environments, textiles and clothing, family finances, resource management)
- 3. Family and Human Development
- 4. Nutrition, Food, and Wellness

The first content standard fits well with the career focus of recent legislation, and the other three content standards reflect traditional content areas.

<u>Processes</u> The Process Standards of Curriculum Development overlap with the Florida Accomplished Practices and call attention to both traditional and modern abilities needed by teachers. These are summarized below.

- 5. Curriculum Development (develop, justify, and implement curricula that address perennial and evolving family, career, and community issues)
- 6. Instructional Strategies and Resources (facilitate critical thinking and problem solving through various technologies, strategies, and resources)
- 7. Learning Environments (create and implement safe, supportive learning environments that show respect to all students)
- 8. Professionalism (engage in ethical professional practice through civic engagement, advocacy and ongoing professional development)
- 9. Student and Program Assessment (evaluate and improve student learning and programs using appropriate criteria, standards and processes)
- 10. Student Organization Integration (integrate the Family, Career and Community Leaders of America student organization into FCS programs)

Clearly, the profession and states desire similar qualities in the next generation of FCS teachers. However, the last process standard of Student Organization Integration is unique and adds value to FCS teacher training. The FCS student organization of Family, Career and Community Leaders of America (FCCLA) promotes character, leadership and 21st century skills. FCCLA³ with funding from the Kikkoman Corporation has even sponsored a Japanese Exchange Program: Selected students get to live with a host family and experience local ceremonies, traditional foods, and travels.

FCS Teacher Training at Universities

Approximately 160 universities across the United States offer FCS teacher training but it is difficult to know the exact number and find a simple listing. Most universities name their FCS units by other names such as human ecology, human sciences and many various options; FCS teacher training often is not even associated with the original FCS unit but placed with other units such as agriculture or applied sciences. The detrimental effect of such confusion is that FCS seems almost invisible in many universities (Davis, 2008, July). With up to 70% of current FCS teachers expected to retire in the next decade, it is imperative to re-establish visibility.

Typical FCS Teacher Training Curriculum

Although every university is its own entity, I will summarize a typical FCS curriculum of studies in teacher training. All university students take basic liberal arts courses in sciences, mathematics, language arts, communication, history, economics, etc. Theories and practices in pedagogical processes have a prominent place in teacher training: program and curriculum planning, daily lesson planning, variety of teaching techniques, alternative and authentic methods of assessment, and use of technology for grade books, assignments, and communication.

As noted earlier many youths have problems with basic skills, behaviors, and special needs. Based on the belief that education is a vehicle for positive solutions, university teacher training programs often require a course in teaching reading and other basic skills through specialized content areas. A graduate of FCS teacher training in Florida will be expected to use specific reading strategies to promote comprehension in FCS reading assignments, assess writing skills in student work, and consciously bring in math applications to assignments such consumer projects or nutrition analyses.

Teacher training in classroom management, safety, and the legal rights and responsibilities of teachers and students is essential in the U.S. A graduate must be prepared and confident in using appropriate classroom management and varied motivational techniques for a heterogeneous student population. FCS teacher training also attempts to facilitate competency regardless of students' special needs, cultural diversity, and language diversity. Prospective teachers need to gain practical techniques for teaching those with cognitive, physical, and social/emotional disabilities or without English language skills. One survey found that 91% of FCS teaching methods courses include best practices for teaching students with limited English and varying socioeconomic backgrounds. Eighty-four percent include adaptation for family diversity (divorced, stepfamilies, etc.), and 58% address multicultural education in some depth (Alexander, West, & Ebelhar, 2007).

FCS teacher training programs typically require 30 or more semester hours of courses based in the theories, concepts, and practices of FCS content areas. Future teachers gain research-based knowledge about interpersonal relationships, marriage and family, child development, parenting, family life cycle, family crises, and family in society and political contexts. At least two or three courses covering food preparation and safety principles, nutrition, nutrition issues, health and wellness, and/or foods systems management are required. The curriculum also typically includes housing, interior planning and design, consumer economics, personal finance/resource management, textiles, and the history and mission of home economics/FCS. Although many universities have discontinued apparel construction, Florida has seen an increased interest in sewing but as an expressive art and for service such as making quilts for children in poverty. Most universities also offer courses unique to their program strengths. For example, Iowa State University offers international home economics, and the University of Minnesota offers parenting education courses.

In the United States, FCS teacher training traditionally has provided a broad survey of careers such as food service and childcare through a course in "occupational" curriculum and issues. With new CTE legislation that directs further attention to career pathways, this occupational dimension could feasibly become expanded for greater depth and breadth in FCS teacher training programs. This potentially could lead to either troubling or beneficial outcomes. More time devoted to career information could interfere with a prospective teacher's opportunity to delve into core FCS knowledge. Career language is often couched in much narrower terms (profit, loss, etc.) than FCS language of empowerment and wise consumption, which could limit the prospective teacher's breadth of understanding. At the same time, future teachers have the potential to learn how to infuse a philosophy of reasoning for action, balancing work and family, and developing character traits for everyday settings for ultimate wellbeing of the family.

One of the best features of FCS teacher training programs is that each prospective teacher spends considerable time with a practicing teacher to experience realities of teaching, ending with student teaching and a full teaching schedule the last semester. Research indicates that initial time in classrooms is frustrating and stressful, but time to adjust and overcome struggles through experience often leads to confidence and excitement about the teacher's profession (Kvaska & Lichty, 2004).

Uniqueness of FCS Teacher Training: Practical Reasoning Approach

Perhaps the idea that most strongly ties everything together for FCS teacher training is

what is variously known as Practical Reasoning, Practical Problem Solving, or Reflective Action. The National Standards, including the addition of the Reasoning for Action Standard, add even greater strength. Throughout teacher training, the Practical Reasoning Process is taught as a philosophy and used as a method. Practical problems begin with questions like: What should I do about staying healthy using nutrition and exercise? What should our family do about managing our finances? How can we make certain we maintain good communication in our family?

Practical Problems cannot be solved with easy formulas because they are value laden, situations often change, and multiple alternatives are available. The practical reasoning process helps learners make high quality and satisfying choices based on technical skills, communication and interpretation, and critical thinking and action. A brief summary of the overlapping phases is below:

- 1. Identify problem.
- 2. Examine and set goals or valued ends.
- 3. Interpret contextual information.
- 4. Obtain and use needed information and skills pertinent to the context and problem.
- 5. Consider alternatives and consequences.
- 6. Take actions and evaluate.

FCS teacher training strives to infuse the Reasoning for Action process and three systems of action throughout its programs so that future teachers, and subsequently their students, will learn to take reflective action regarding practical problems. For example, a teacher in training might be assigned to develop a lesson pertinent to learners. One Practical Problem facing most learners is "what to do about establishing good relationships in a fast paced society." 1. This practical problem is value-laden; students might discuss values sought in strong relationships and note that too many people are getting divorced, not committing to others, or lonely. 2. They might set a goal to help people build stronger relationships. 3. and 4. They then would research/analyze the cultural context for both positive opportunities and negative social pressures for relationship strengthening. Students could investigate technical information about how finances, time constraints, work demands, and availability of stress release activities affect relationships. They could clarify interpretations of the issues in small groups. 5. Students would likely be able to arrive at least two possible alternatives to help solve the problem - perhaps producing a class website about positive relationship building or developing a "relationship fair" to compare and contrast multiple perspectives on the issue. 6. After considering potential benefits and risks of each alternative, the FCS learners would then be ready to execute an action plan.

FCS educators know that learners become empowered by delving deeply into issues and critically assessing information and contexts. FCS has a unique message that critical thinking, dialogue, and cooperation will generate empowering qualities of trust, shared power, use of language for possibility, and positive action (Johnson & Fedje, 1999). Readers are highly encouraged to consult an article in this journal by Laster (2008) who has detailed critical literacy "as a teaching strategy and everyday life strategy for a changing world" (p. 269) and as a process that enables transformative solutions to problems.

Looking to FCS Future

Because attention to competing educational issues is intense in the United States, FCS teachers can become overlooked if they do not engage in political discussions, collaborate, and show leadership. FCS teacher training increasingly needs to cultivate public relations, technological communication, marketing, grant writing, service learning, and leadership skills (Vail, Fox, & Wild, 2000; Wild, 2004) so our contributions become more widely recognized and sought. FCS teacher training would also benefit from more research concerning its impact and distinctive contributions to education and society.

Research Findings: FCS Teacher Training

In a review of FCS Education literature in three main journals, from 1996-2006, Johnson (2007) found that teacher preparation accounted for only 12 of the 171 articles. She noted that many questions remain unanswered by research: What are new FCS teacher like? What motivates them to become teachers? What helps them grow and develop as professionals? How can their effectiveness and impact on learning be increased? What is the best type of assessment for different types of learning?

Greater numbers of in-depth studies like that of Mimbs (2005) are needed. She recently studied an intensive program designed to "enhance a teacher's use of critical thinking, problem based curricular approach in FCS." Twenty-five teachers participated in many critical thinking exercises, discussions, and assessments—then were asked about their perceptions as they implemented critical thinking with students. Results were: 1) Teachers observed positive outcomes as students learned to value others, defend their own positions, think independently, use their own learning styles, take ownership of decisions, and evaluate themselves. The process was thought provoking, life-like, and empowering. 2) Teachers needed to model critical thinking each day as "an exciting and consistent example" and "to try new things in a noisy active classroom." 3) Teachers experienced challenges with students who wanted to "take it easy," assessment of new complex skills, and developing new learning materials.

Mimbs concluded that it takes a long time, moral support, and continued training to gain deep understanding and solid skill in using a critical thinking, practical reasoning perspective. Even experienced teachers who participated actively in the problem-based curricular approach took several years to gain comfort and depth of understanding with the use of critical thinking processes. The study clearly supports the early and continuous inclusion of the practical reasoning approach in teacher education. With relatively new circumstances such as a more intensive career focus at the national CTE level and National Standards for Teachers of FCS, further research is needed to identify how they being implemented, outcomes of implementation, and best ways to encourage their use by experienced as well as new teachers. There are also emerging issues of international interest to home economists (such as the global economy and environmental sustainability) and highlighted at the recent World Congress of the International Federation of Home Economics (e.g., Caraher, 2008; Grobly, 2008; Renold, 2008; Vincenti & Turkki, 2008). Research into best practices for incorporating these and other contemporary issues is needed.

Exemplary FCS Programs: Results of Teacher Training

A few examples of some of the best FCS teachers show the positive action-oriented creativity that is possible when a teacher is well educated in processes of practical reasoning, communication, critical thinking, and transformative action. "Bridging the Gap: Intergenerational Appreciation" is a FCS course and graduation requirement developed by teacher Margaret Sowers in Lebanon, Pennsylvania. Her students study process skills of thinking, communication, problem solving, resource management, change across the lifespan, and valued qualities of each generation. One highlight is a "Senior Senior Prom," planned and implemented by the FCS students to celebrate nostalgic times and connect elderly and youth (Sowers, 2007).

Toni Carlton (2007), Exploratory FCS teacher at Mayfield Middle School, instituted an annual event called "Fun, Food, Fitness and Family Night." Students and their families participate in wellness activities by rotating through stations such as yoga, sports, chair massages, and diet analysis at computers. Health fair exhibits include demonstrations, nutrition games, samples, and healthy recipes. Students also produce a quarterly newsletter for all school families, with information gained as they investigate cafeteria habits, interview school personnel, and track down health information. Practical reasoning about the problem of obesity has led to solutions for individuals and is supported community wide. In the hands of exemplary and well-educated FCS

teachers, students are learning to think, communicate, and live well.

Conclusion

Families in all countries face numerous challenges. It is hoped that teacher training prepares FCS teachers to integrate basic skills with complex thinking skills—skills needed by all citizens so they can solve complicated practical problems and contribute to a vital global society. FCS teachers are trained to promote reasoning for empowered action whether in personal and family life or career preparation, and to balance individual differences with collaboration. FCS teachers who both care deeply about families and are trained to take leadership are likely to become the first to detect emergent problems and act for solutions.

As home economists around the world know, FCS involves multiple duties and opportunities! Teacher training in FCS is likewise challenging but inspiring. What could be more satisfying and significant than preparing to teach for the empowerment of students, families, workers, and citizens?

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Footnotes

National Standards for Family and Consumer Sciences are available at http://www.aafcs.org/FCS_standards/ or http://doe.state.in.us/octe/facs/ProcessFramework.html

² National Standards for Teachers of Family and Consumer Sciences are available at http://www.natefacs.org/nationalstandards.htm

Family, Career and Community Leaders of America is described at http://www.fccla.com

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