Notes from the Editors

The *Journal of Family and Consumer Sciences Education* includes a variety of research articles related to education in this field of study. This issue focuses on the *National Standards for Teachers of Family and Consumer Sciences*.

There will be additional issues of the *Journal* published with emphasis on the *Standards* for the preparation of teachers for family and consumer sciences. All of the issues related to the *Standards* are guest edited by Wanda S. Fox, Daisy Stewart, and Patricia M. Erickson, who served as the leadership team for the development of the *Standards*. The articles in this issue and subsequent issues have been peer reviewed and edited using the same requirements approved by the Editorial Board for all articles published in the *Journal of Family and Consumer Sciences Education.*

The first article in this issue, Development of the *National Standards for Teachers of Family and Consumer Sciences*, was authored by the guest editors. It was peer reviewed through the normal journal review process, under Cecelia Thompson's editorship.

We extend our appreciation to the guest editors for their coordination of this series of articles related to the *Standards*. This first issue in the series is designated as Volume 26, National Teacher Standards 1. This special designation for the issue number will be used throughout the series.

JFCSE Editors
Cecelia Thompson
Bettye P. Smith

Notes from Guest Editors

We are pleased to present the first of several issues of the *Journal of Family and Consumer Sciences Education* devoted to the *National Standards for Teachers of Family and Consumer Sciences*. The *Standards* provide a national model for what a beginning teacher in family and consumer sciences should know and be able to do. The *Standards* impact areas such as state-level family and consumer sciences teacher licensure, design and accreditation of teacher education programs, and assessment of teacher candidates.

The set of ten *Standards* that were developed delineate core content and professional practice for teachers of family and consumer sciences. The *Standards* are presented on page v, following these notes. Each of the *Standards* incorporates complex concepts integral to the teaching of family and consumer sciences. Since the *Standards* are utilized in a wide variety of teacher education programs, they are implemented differently depending on state and institutional contexts. This series of articles will include one or more articles on each of the ten *Standards*. With the complexity of the concepts in the *Standards*, the authors of articles often focused on a selected part of the *Standard* or used a specific perspective. All of the articles examine the research related to the *Standards* and apply it to family and consumer sciences education teacher preparation.

This issue includes the first four articles in this series. As guest editors and as the leadership team for the standards-development process, we wrote the first article, Development of the *National Standards for Teachers of Family and Consumer Sciences.* This article was submitted to Cecelia Thompson, editor of the *Journal*, and she directed the peer review process to consider it for publication. This article provides a summary of the research and procedures used to develop the *Standards*. Each of the phases in this process included input from individuals representing diverse institutions and organizations from across the nation. This process resulted in consensus regarding *Standards* that can be a basis for continued improvement of teacher education programs. The remaining articles in this issue examine three of the ten *Standards*: Standards 1 and 3, which focus on content, and Standard 6, which focuses on professional practice.

Wendy Way's article on Standard 1: Career, Community, and Family Connections synthesized research from diverse disciplines that support interrelationships of the concepts of family, career and community. She also discussed legislation and how it impacts the Standard. Resources related to the concepts included in Standard 1 and related legislation are integrated into the article. Way's work provides a foundation for teacher educators to build on as they develop their programs.

The article by Shirley R. Klein and Christine M. Moore examines Standard 3, Family and Human Development, with an emphasis on family life. They outlined linkages between this standard and other state and national standards and professional frameworks. They also identified and discussed several core issues related to preparing individuals to teach this content in middle and high school settings, recommended strategies for assessment of preservice teachers, and described a variety of print and online resources. This article will be a valuable resource for developing capacity for teaching in human and family development content areas.

In their article on Standard 6: Instructional Strategies and Resources, Susan A. Reichelt and Mary J. Pickard emphasized the value of the Internet as a tool to enhance instruction in family and consumer sciences. They discussed literature related to use of the Internet and included a variety of learning activities and online resources. The information in this article will be useful as a reference for teachers as well as teacher educators.

All of the articles in the series were peer reviewed and edited using the requirements approved by the Editorial Board for all articles published in the *Journal of Family and Consumer Sciences Education.* It would not have been possible to publish this issue and subsequent issues of the *Journal* focusing on the *Standards* without the assistance of the reviewers, all of whom met the criteria of the *Journal of Family and Consumer Sciences Education* to serve in this important role. The reviewers for the entire series are listed on page iv. We sincerely appreciate their contributions to this series.

We also would like to thank Cecelia Thompson and Cheryl Mimbs, editor and assistant editor of the *Journal*, for their support and suggestions as we developed the electronic editing procedure for the issues of the *Journal* focusing on the *Standards*. Bettye Smith will be assuming the role of editor, and we look forward to continuing to work with her to provide these issues as a resource for the profession.

Guest Editors
Wanda S. Fox
Daisy Stewart
Patricia M. Erickson

National Standards for Teachers of Family and Consumer Sciences

National Association of Teacher Educators for Family and Consumer Sciences – Approved 12/04

The *National Standards for Teachers of Family and Consumer Sciences* provides an overarching model of excellence for what a beginning teacher in family and consumer sciences (FCS) should know and be able to do. The National Association of Teacher Educators for Family and Consumer Sciences led FCS educators and other stakeholders from across the country to develop the *Standards*. The two-year, highly participatory process yielded an integrated set of standards with a high degree of national consensus, while allowing for variations in state teacher preparation and licensure. These standards are unique to FCS teachers. In addition, the beginning FCS teacher has general education background and meets overall professional education standards. As presented, the first four standards focus on FCS content; the remaining six emphasize professional practice. In each of these two groups, the standards are arranged alphabetically. The FCS process areas of thinking, communication, leadership, and management are incorporated throughout. Across all ten standards, the beginning FCS teacher demonstrates knowledge, skills, and attitudes to enable student learning.

1. Career, Community, and Family Connections
Analyze family, community, and work interrelationships; investigate career paths; examine family and consumer sciences careers; and apply career decision making and transitioning processes.

2. Consumer Economics and Family Resources
Use resources responsibly to address the diverse needs and goals of individuals, families, and communities in family and consumer sciences areas such as resource management, consumer economics, financial literacy, living environments, and textiles and apparel.

3. Family and Human Development
Apply principles of human development, interpersonal relationships, and family to strengthen individuals and families across the lifespan in contexts such as parenting, care giving, and the workplace.

4. Nutrition, Food, and Wellness
Promote nutrition, food, and wellness practices that enhance individual and family well being across the lifespan and address related concerns in a global society.

5. Curriculum Development
Develop, justify, and implement curricula that address perennial and evolving family, career, and community issues; reflect the integrative nature of family and consumer sciences; and integrate core academic areas.

6. Instructional Strategies and Resources
Facilitate students' critical thinking and problem solving in family and consumer sciences through varied instructional strategies and technologies and through responsible management of resources in schools, communities, and the workplace.

7. Learning Environment
Create and implement a safe, supportive learning environment that shows sensitivity to diverse needs, values, and characteristics of students, families, and communities.

8. Professionalism
Engage in ethical professional practice based on the history and philosophy of family and consumer sciences and career and technical education through civic engagement, advocacy, and ongoing professional development.

9. Student and Program Assessment
Assess, evaluate, and improve student learning and programs in family and consumer sciences using appropriate criteria, standards, and processes.

10. Student Organization Integration
Integrate the Family, Career and Community Leaders of America student organization into the program to foster students' academic growth, application of family and consumer sciences content, leadership, service learning, and career development.

Journal Reviewers

The following individuals served as reviewers for the manuscripts submitted for consideration for the series of articles focusing on the *National Standards for Teachers of Family and Consumer Sciences.* They worked with guest editors Wanda Fox, Daisy Stewart, and Patricia Erickson to complete masked reviews of all submitted manuscripts, using criteria approved by the Editorial Board of the *Journal of Family and Consumer Sciences Education*.

Sue Bailey
Katherine Brophy
Barbara Clauss
Kathy Croxall
Merrilyn Cummings
Debra DeBates
Jane Dennis
Ruth Dohner
Candace Fox
Helen Hall
Jacquelyn W. Jensen
Julie M. Johnson
Karen Jones
Shirley Klein
Michelle Krehbiel
Margaret Lichty
Mary Lou Liprie
Lori Matyjas
Joan R. McFadden
Gail McMillon
Janis Meek
Cheryl Mimbs
Bette Montgomery
Christine V. Moore
Mary J. Pickard
Marsha Rehm
Susan A. Reichelt
Ellaline Roy-Macaulay
Cecelia Thompson
Nancy Thompson
Carol Werhan
Jan Wissman
Sally Yahnke
Karen Zimmerman

Development of the *National Standards for Teachers of Family and Consumer Sciences*

Wanda S. Fox
Purdue University

Daisy Stewart
Virginia Tech

Patricia M. Erickson
Bowling Green State University

In this paper, the two-year development process for the National Standards for Teachers of Family and Consumer Sciences *(National Association of Teacher Educators for Family and Consumer Sciences, 2004) is chronicled in five phases: Context and Momentum, Exploration, Foundations, Framework, and Final Design. This development process yielded a set of ten integrated standards: four focusing on content and six on professional practice. The resulting* Standards *serve as a base for national continuity and future directions in family and consumer sciences education. They also allow for variations across states and teacher-education programs. This article provides a historical documentation of the standards-development effort and can inform others involved with similar work.*

The *National Standards for Teachers of Family and Consumer Sciences* (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004) provide a national model for what a beginning teacher in family and consumer sciences should know and be able to do. The *Standards* impact areas such as state-level family and consumer sciences teacher licensure, design and accreditation of teacher-education programs, and assessment of teacher candidates. The *Standards* were developed in a two-year, nationwide process that culminated in their approval by the National Association of Teacher Educators for Family and Consumer Sciences in December 2004. Implementation followed at the national, state, and local levels.

The vision of family and consumer sciences (FCS) education is to "empower 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" ("Vision and Mission," 1994, p. 5). FCS is an essential component of middle and high school education. Nationally, more than 5.5 million students enroll in FCS classes each year, taught by 37,500 teachers (Werhan & Way, 2006). Through FCS classes and participation in the Family, Career and Community Leaders of America (FCCLA) student organization, students build knowledge, skills, attitudes, and behaviors in diverse areas of study, including career, community and family connections; consumer and family resources; human development; nutrition and wellness; and many others (National Association of State Administrators for Family and Consumer Sciences [NASAFACS], 2008).

Over the past 25 years, family and consumer sciences curriculum has undergone many changes, with less emphasis on skill areas such as clothing construction and food preparation,

and more emphasis on decision making and problem solving in preparation for family life, work life, and careers (see, for example, American Home Economics Association, 1989, 1994; American Vocational Association, 1994; Brown & Paolucci, 1979; Fox, 1998; Plihal, Laird, & Rehm, 1999). While a comprehensive discussion of these changes is beyond the scope of this paper, this evolution from home economics to family and consumer sciences reached a milestone in 1994 with adoption of a national conceptual framework and name change (*Positioning the Profession*, 1993; Simerly, Ralston, Harriman, & Taylor, 2000; Stewart, 1994). Subsequently, the National Association of State Administrators for Family and Consumer Sciences spearheaded development of the *National Standards for Family and Consumer Sciences Education* (1998), which delineated goals for middle and high school student learning. The next step was to develop national standards for beginning teachers of family and consumer sciences.

The purposes of this article are to explain how the *National Standards for Teachers of Family and Consumer Sciences* were developed, to present and briefly describe the *Standards*, and to discuss opportunities and issues related to their implementation. The article is a historic documentation of the development of these *Standards*. It also provides an example of a process for others who are involved in similar work.

Background

Being an effective teacher relies on a complex and multifaceted set of qualities ranging from general pedagogical competencies to content-specific knowledge and skills (Danielson, 1996; Shulman, 1987). Having well-prepared teachers in every classroom is a central goal of the No Child Left Behind legislation and subsequent publications, in which a highly qualified teacher is defined as one who "knows what to teach, how to teach, and has command of the subject matter being taught" (United States Department of Education, n.d., ¶2). Most importantly, quality of teaching directly influences student learning. Wenglinsky (2000) found that "the greatest role in student achievement is played by classroom practices, followed by professional development that is specifically tailored to those classroom practices most conducive to the high academic performances of students" (p. 8). Further, the vision of school reform detailed by Zemelman, Daniels, and Hyde (1998) "relies not on new rules and controls, but on improving instruction" (p. xii).

Beginning in the late 1980s, work by the Interstate New Teacher Assessment and Support Consortium (INTASC), a program of the Council of Chief State School Officers, propelled a national movement toward performance-based standards, licensure, and assessment of beginning teachers (INTASC, 1992, 1995). According to INTASC, standards for beginning teachers "articulate what entering teachers should know, be like, and be able to do in order to practice responsibly, and to begin the journey toward deepening expertise" (1995, p. 3). This consortium articulated ten "INTASC Principles" that defined a common core of teaching knowledge for all teachers. The first of these principles stated, "The teacher understands the central concepts, tools of inquiry, and structures of the disciplines(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students" (INTASC, 1992, p. 14). The core standards were "to be followed by additional specific standards for disciplinary areas" (p. 6), thus laying the groundwork for establishing national standards for teachers in various content areas, including family and consumer sciences.

Distinct from teacher licensure, which is granted by individual states based on state-specific standards and requirements, national standards for teachers provide a broad, widely encompassing definition of knowledge and skills expected of a beginning teacher in a particular

discipline area. Such national standards enable a field to develop a shared vision of teacher knowledge, attitudes, and skills that best facilitate student learning. In addition, they serve as a foundation for collaboration in teacher education, professional development, and accountability. They also provide a framework for research related to teaching, learning, and instructional practices (Bobbitt & Youatt, 2000; McCaslin & Parks, 2002). Such collaborative efforts are especially valuable in a field such as family and consumer sciences which is experiencing shortages of teachers (Werhan & Way, 2006). According to Judith Kreutzer, editor of the annual National Family and Consumer Sciences Teacher Education Directory since 1996, FCS has limited, and in many cases, declining numbers of teacher education faculty (J. Kreutzer, personal communication, March 1, 2007). National standards for FCS teachers can provide an important framework for maintaining and strengthening teacher education, and ultimately for facilitating middle and high school student learning in family and consumer sciences.

Project Purposes and Goals

The purposes of the project described in this paper were to develop, document, and disseminate national standards for family and consumer sciences teachers. The overall goal of developing these standards was to strengthen the field of FCS education and its positive impact on individuals, families, communities, and careers through enhanced student learning. Several specific goals and benefits were identified for the project:

> (a) to establish nationally-recognized standards of excellence for family and consumer sciences teacher preparation, professional development, assessment, and accountability;
> (b) to provide a framework for teacher education program development, accreditation, resource allocation, and accountability;
> (c) to enable collaboration and resource sharing for teacher preparation, professional development, and licensure/certification;
> (d) to increase identity, excellence, and visibility for family and consumer sciences teachers and programs. (Fox, 2003, p. 1)

Development Process for the *Standards*

The development process for the *National Standards for Teachers of Family and Consumer Sciences* (NATEFACS, 2004) took place over several years. At the conclusion of this process, the authors of this article examined the development timeline and events, and identified five major phases: Context and Momentum, Exploration, Foundations, Framework, and Final Design. These phases provide a structure for the descriptions of the development process. They are explained in the following sections and summarized in Table 1.

Context and Momentum

The 1990s witnessed widespread implementation of the *INTASC Standards* and overall efforts for standards-based teacher licensure, preparation, and assessment, as was described earlier in the background section of this article. Also during this time, several professional organizations developed discipline-specific national standards for teachers in their respective areas. Among these were mathematics (National Council for Teachers of Mathematics, 1991), English language arts (National Council of Teachers of English, 1996), and physical education (National Association for Sport and Physical Education, 1995). Across the country, more than 30 states redesigned teacher licensure based on the INTASC principles (INTASC, 1995). The

Table 1
Development Timeline: National Standards for Teachers of Family and Consumer Sciences

Phases and dates	Activities and accomplishments
Context and Momentum Prior to 2001	**1990s**: National standards for teachers established in many content areas. **1992**: INTASC Principles for Beginning Teachers published. Momentum built for states to develop standards-based teacher licensure. **1998**: *National* (student) *Standards for Family and Consumer Sciences Education* completed; need identified for corresponding national standards for FCS teachers.
Exploration 2001-2002	NATEFACS officers held initial discussions about developing *National Standards for Teachers of Family and Consumer Sciences;* presentation proposals submitted for national conferences. **December 2002**: First national conference session about *Standards*, at ACTE annual meeting. Broad representation, strong interest. Stage set for national effort, with leadership by NATEFACS.
Foundations 2003	**February:** Career and Technical Teacher Education conference roundtable presentation. **April**: NATEFACS officers met to develop a conceptual base and plan-of-work. **June**: AAFCS conference session, with emphasis on FCS content and linkage to the student standards. **July**: Project Leadership Team solidified; pattern of two to four conference calls per month established; project website developed. **September**: First "Development Panel" conference; representation by 39 individuals from 25 states. Discussed possible purposes, structures, and content of the standards. **October-November:** Subcommittee from Development Panel created initial draft *Standards*. **December**: Initial draft disseminated, with review and e-mail feedback by Development Panel participants. Additional input gathered at ACTE annual meeting session attended by 50+ people.
Framework Jan - Aug 2004	**January-February**: Input used for further revisions and drafts. **March**: Draft disseminated for Development Panel input through structured e-mail survey. **April**: Revised draft developed and distributed to Development Panel. **May**: Project Leadership Team held 3-hour workshop at NASAFACS meeting; 20+ state FCS administrators provided input. **June**: Workshop at AAFCS annual meeting , individual and small-group feedback (3 hours, 100+ participants).
Final Design Sept - Dec 2004	**September**: "Development Panel" subcommittee reviewed input from spring and summer meetings and developed draft with set of 10 standards. **September-October**: Draft disseminated and input sought through online survey of 300+ individuals who had attended conference sessions and otherwise expressed interest. **October:** Second "Development Panel" conference; representation by 36 people from 20 states. Online survey data analyzed. Word-by-word review, editing, and consensus for set of 10 standards. Introductory paragraph outlined. **November**: External review and final editing. **December**: Standards distributed electronically to NATEFACS membership for final approval. Final version of the *National Standards for Teachers of Family and Consumer Sciences* disseminated at ACTE annual meeting. *Standards* posted at http://www.natefacs.org.

National Board for Professional Teaching Standards (NBPTS) established standards for accomplished teachers, including family and consumer sciences as a component of career and technical education (NBPTS, 2000). The *National Standards for Family and Consumer Sciences Education* were completed in 1998, through work coordinated by the National Association of State Administrators for Family and Consumer Sciences (NASAFACS, 1998). Peggy Wild, co-chair of the leadership team for the project to develop these national standards for students in

middle and high school FCS programs, stated that a need for corresponding FCS teacher standards was mentioned frequently during the meetings for developing the student standards (P. Wild, personal communication, July 15, 1998).

By the year 2000 it had become apparent that discipline-specific national standards for teachers were needed in order for family and consumer sciences to fully participate in an increasingly standards-based environment for teacher licensure, teacher education, and accreditation of teacher education programs. This challenge was undertaken by the officers of the National Association of Teacher Educators for Family and Consumer Sciences, an organization established more than 35 years ago with the purpose of improving and strengthening teacher education in family and consumer sciences (NATEFACS, n.d.). Furthermore, NATEFACS is an affiliate of the Family and Consumer Sciences (FACS) Division of the Association for Career and Technical Education (ACTE). As a result, NATEFACS members have linkages with family and consumer sciences teachers and administrators who also are in the FACS Division and with professionals from a wide range of career and technical education areas who are members of other divisions of ACTE.

In summary, the Context and Momentum phase of this project spanned more than a decade during which major national shifts occurred toward performance-based standards for teacher licensure, with corresponding changes in design and accreditation of teacher-education programs. In particular, the states that participated in the INTASC efforts forged a new approach in which national standards provided major impetus in developing state-specific standards for teacher licensure. National professional organizations followed suit in developing teacher standards in specific disciplines and the role and responsibility emerged for NATEFACS to do this in family and consumer sciences.

Exploration

In the Exploration phase of this project, which began in 2001 and continued through 2002, NATEFACS officers introduced the possible development of national standards for family and consumer sciences teachers through various professional communications. They outlined project goals and explored options for organization, participation, and funding of the project; examined relationships between national teacher standards and accreditation of teacher-education programs; and submitted proposals for presentations at national conferences. In addition, they began to gather and review a wide range of documents that informed the standards-development process. These included performance-based standards for FCS teachers that recently had been developed in several states (e.g., Indiana, Kansas, Kentucky, Ohio, Oregon, Texas) and publications of national organizations involved with teacher standards, preparation, and licensure (e.g., INTASC, 1992, 1995; NBPTS, 2000; National Council for Accreditation of Teacher Education [NCATE], 2002). They also sought input from individuals knowledgeable about processes other professional organizations had used to develop standards for teachers, and they examined related documents published by these organizations (e.g., National Association for the Education of Young Children, National Association for Business Education).

The first national conference session related to development of national FCS teacher standards was held at the December 2002 annual meeting of the Association for Career and Technical Education. The late-afternoon session drew more than 75 people from a wide range of roles in family and consumer sciences and other areas of career and technical education. NATEFACS officers used five questions to structure this session: (a) What are national

standards for teachers and what purposes do they serve? (b) Why are national standards for teachers of FCS important? (c) What theoretical foundations could be used for national standards? (d) How might national standards be structured? and (e) What processes could be used to develop national standards? The session culminated in a solid endorsement of a NATEFACS-led effort to develop national standards for FCS teachers (Fox & Erickson, 2002).

Thus, during the Exploration phase of the project, the need and opportunity for developing national FCS teacher standards was confirmed. NATEFACS officers gathered information that enabled a greater understanding of teacher standards and standards-development processes. The phase concluded with broad-based support for developing FCS teacher standards, and NATEFACS officers made a firm decision to proceed with the standards-development work.

Foundations

The effort identified as the "Project to Develop National Standards for Teachers of Family and Consumer Sciences" formally started during the Foundations phase. Early in 2003 the co-authors of this article officially assumed responsibility as the leadership team for the project, in conjunction with our roles as past-president, president, and president-elect of NATEFACS. During the Foundations phase, we developed various communication strategies, including frequent conference calls, stakeholder e-mail lists, and a project website. At a leadership team meeting in April 2003, we outlined project goals, strategies, and timelines and examined various publications related to teacher expectations, standards, and preparation (e.g. Chamberlain & Cummings, 2003; Danielson, 1996; Gray & Walter, 2001; INTASC, 1992, 1995; Martin-Kniep, 2000; McCaslin & Parks, 2002; NBPTS, 2000; Peterat & Smith, 2001). We also reviewed historical FCS education documents which provided grounding in previously published standards for FCS teachers and conceptual frameworks for FCS education (e.g., American Home Economics Association, 1974, 1989; Home Economics Teacher Educators, 1978).

During this time, we refined our conceptualization of the standards as a model of excellence that would set goals for essential preparation for FCS teachers. In particular, while acknowledging the broad preparation needed by all professional educators, we viewed the scope of the standards as being those characteristics and applications distinctive to middle and high school family and consumer sciences teachers. Thus, we conceptualized the standards as focusing on expectations for initial licensure of FCS teachers in relation to FCS content and to FCS-specific professional practice. Recognizing the challenges that surround delineating national standards due to varying perspectives among states, school districts, universities, and individual FCS professionals, we decided to propose the creation of a set of core standards that would emphasize areas for which there was broad national consensus.

We outlined several other areas as grounding for the standards. Consistent with current trends in education, we conceptualized the standards as focusing on teachers' roles in enabling student learning, rather than on specified actions and abilities of teachers (Wiggins & McTighe, 2005). In considering FCS content and pedagogy, we saw practical reasoning (a process through which individuals and families make value-based judgments about actions to take) as a key component of FCS education (Johnson & Fedje, 1999; Laster & Thomas, 1997; Montgomery & Davis, 2004). We also recognized the integral role of the four FCS education process areas delineated in the *National Standards for Family and Consumer Sciences Education*: thinking, communication, leadership, and management (Fox, 2000; NASAFACS, 1998, 2008). In addition, we acknowledged several additional characteristics central to FCS education, including contextual teaching and learning, authentic assessment of student learning, and integration across

FCS content areas and with other disciplines (Berns & Erickson, 2002).

The conceptualization of the standards also brought attention to their futuristic role as a basis for initial teacher preparation that would influence family and consumer sciences students, their families, their careers, and society for many years to come (McCaslin & Parks, 2002). In this same vein, we recognized the interface of FCS with current and emerging social issues, such as obesity, personal financial stability, and societal demographics, whose impacts are yet to be fully seen (James, 1996; Reich, 2000). These changing and unknown future contexts further pointed to FCS teacher standards and corresponding teacher preparation as a foundation for lifelong learning, both for teachers and for their middle and high school students.

In addition to the conceptual work accomplished during the Foundations phase, two national conference sessions fostered linkages with other stakeholder groups. A session at the Career and Technical Teacher Education conference in February 2003 (sponsored by the National Centers for Research and Dissemination in Career and Technical Education) provided an opportunity to discuss the purposes and benefits of standards for teachers with other career and technical education professionals and to inform them of our goal to develop these standards for FCS (Fox & Erickson, 2003a). It also enabled their input in several areas, including criteria, content, and format for the standards; ways to build stakeholder involvement; and overall processes for developing the standards. Another conference session, at the June 2003 American Association of Family and Consumer Sciences (AAFCS) annual meeting, included FCS content experts, administrators, teachers, and teacher educators, thus fostering connections among FCS professionals in these various roles. This session also enhanced linkages with the *National Standards for Family and Consumer Sciences Education* (NASAFACS, 1998) by using the 16 areas-of-study from these national standards for middle and high school students as a framework for discussion and input related to developing national FCS teacher standards (Fox & Erickson, 2003b).

Four overall criteria for the standards were developed and confirmed during this Foundations phase of the project, clarifying that the *National Standards for Teachers of Family and Consumer Sciences* should:

1. Serve as an overarching model of excellence that describes what a beginning family and consumer sciences teacher should know and be able to do.
2. Delineate a core set of "essential standards" that are as concise and non-redundant as possible and for which there is a high degree of national consensus among FCS teacher educators, FCS content specialists, FCS teachers, and other stakeholders.
3. Provide a basis for national continuity while reflecting state variations and future directions within family and consumer sciences content, teacher standards, licensure, initial preparation, professional development, school settings, and teacher responsibilities.
4. Be developed through broad-based involvement by family and consumer sciences educators and other stakeholders who represent various local, state, and national roles, professional organizations, and perspectives. (Fox, 2003, p. 2)

These criteria were driven by two major factors. The first of these was centered in the many differences that exist nationwide in FCS education. These differences include the focus and implementation of middle and high school family and consumer sciences education, with corresponding variations in state-level teacher expectations and licensure patterns (i.e., emphasis on middle school FCS, high school individual and family courses, and/or high school career-

preparation programs). Additionally, many variations exist among universities that offer FCS teacher-education programs, such as type of institution (e.g., liberal arts, research, public, private), enrollment numbers and patterns, institutional priorities, funding sources, and institutional and administrative support for family and consumer sciences and/or teacher education. FCS teacher-education programs also differ in their structure (e.g., FCS-specific or merged with other career and technical education and/or content areas), in their staffing (e.g., number and types of positions, percentage of full time equivalent positions devoted to FCS teacher education, types of responsibilities and authority), and in the characteristics and credentialing goals of those who enroll. For example, programs can include degree-granting (bachelor's or master's) or non-degree options (post-baccalaureate licensure based on undergraduate requirements, and/or career-change programs such as Transition to Teaching). These options can be accomplished through courses delivered on campus, through distance education, through other types of professional preparation, or a combination. Some participants are earning their first degree, and others already hold a bachelor's degree in a FCS content area or another area of teacher licensure. Some may be seeking a second bachelor's or a master's degree in conjunction with teacher licensure while others are not. Furthermore, due to the FCS teacher shortage in many states (Werhan & Way, 2006), an increasing number of individuals are teaching FCS with temporary credentials and obtaining licensure simultaneous to teaching. For these individuals, licensing often depends on meeting requirements through alternate assessments and through courses offered on weekends or evenings, in summer sessions, and/or by distance education (Lee, 1998).

The second major factor influencing the above-listed criteria for the FCS teacher standards was the potential impact of national standards on accreditation of teacher education programs, particularly programs affiliated with the National Council for Accreditation of Teacher Education (NCATE). It was determined that a concise set of standards that focused on areas of national agreement would enhance continuity and at the same time give institutions maximum latitude in designing FCS teacher education programs appropriate for their particular settings. Thus, the scope of the teacher standards is considerably different from the *National Standards for Family and Consumer Sciences Education* (NASAFACS, 2008). The standards for middle and high school students were designed as broad, all-encompassing standards from which individual states and localities select. On the opposite end of the continuum, the *National Standards for Teachers of Family and Consumer Sciences* were developed as a concise set of standards that describe only those aspects of FCS content and pedagogy that are widely agreed-on nationally. As a result, they are core standards for FCS teachers that serve as a foundation on which states and teacher education programs can build and, if necessary, add to based on their specific needs and goals.

All of these factors were in play at the first meeting of the FCS Teacher Standards Development Panel (hereafter referred to as the Development Panel) held in September 2003. As the project leadership team, we coordinated this meeting and encouraged broad-based attendance through a mailing to all universities in the United States known to have FCS teacher education programs; contacts with representatives of FCS professional organizations and the Family, Career and Community Leaders of America student organization; and e-mails to NASAFACS and NATEFACS members and other stakeholders. The 39 professionals who attended were from 25 different states. They represented diverse professional roles, institutional settings, and experience with national family and consumer sciences efforts. Several participants had been actively involved with development of the *National Standards for Family and Consumer*

Sciences Education for middle and high school students (NASAFACS, 1998, 2008), while others had not.

Prior to the meeting, we compiled information about the project goals, conceptual base, and criteria. This information was distributed through materials sent in advance and in presentations early in the meeting (Erickson, 2003; Fox, 2003; Stewart, 2003). The Development Panel participants further discussed and refined these components. They also shared information about FCS teacher education, licensure, and related issues in their various states and universities. Through small group discussions and reports, they considered 21 professional topics and FCS content areas for possible inclusion in the standards. These were drawn from the FCS student standards, professional literature, and teacher standards in other content areas.

At the conclusion of the September 2003 Development Panel meeting, a three-member subcommittee of Julie Johnson, Janet Laster, and Peggy Wild was identified to review the work of the overall group and develop an initial draft of the standards. This first draft included two major sections: Family and Consumer Sciences Professional Practices and Family and Consumer Sciences Content, each with several points and sub-points. Early in December 2003, this draft was e-mailed to those who had attended the Development Panel meeting for their review and feedback. It also was presented for discussion and input at a conference session attended by more than 50 participants at the December 2003 ACTE annual meeting (Fox, Erickson, & Stewart, 2003).

In summary, a great deal was accomplished during the Foundations phase of the project. Steps were taken to build on past efforts; connect with current educational priorities; and establish criteria for a useful, yet future-oriented, set of standards. As the project leadership team, we assumed responsibility for conceptualizing the work, preparing communication materials, and promoting widespread involvement by FCS professionals. The face-to-face work accomplished at the September 2003 Development Panel meeting led to development and circulation of an initial draft of the standards. By the time 2003 ended, a solid base had been established on which to build.

Framework

The Framework phase, which lasted from January to August 2004, featured ongoing development and review of the drafted standards. Another subcommittee of the Development Panel met in January 2004, Wanda Fox, Janet Laster, and Peggy Wild. They reviewed the input that had been gathered from the initial draft and provided recommendations to the leadership team. One of the recommendations, to simplify and condense the standards, was reflected in the February 2004 draft. This draft was condensed from 21 topics to 19, each with a heading and a one-sentence supporting statement, rather than several points and sub-points for each topic. Eleven of these topics were designated as “content” and eight as “professional practice.” This draft was disseminated through an e-mail survey sent to those who had participated in the September 2003 Development Panel meeting. They were asked to rate each topic’s status as an “essential element” of the standards and provide written explanations of their ratings. The survey responses were used to develop the April 2004 draft, which included 21 topics divided into three categories: Pedagogical Knowledge, Content Knowledge, and Pedagogical Content Knowledge.

The April 2004 draft was e-mailed to Development Panel participants for their review and input. It also provided the basis for a 3-hour session that leadership team members facilitated at the May 2004 NASAFACS meeting (Fox & Erickson, 2004). Participants included more than 20 individuals who provide state-level leadership for FCS programs across the United States. In

this session, we outlined purposes and functions of national teacher standards, gave an update of the standards-development process, described the potential long-term influence of the standards, and sought participants' input on future trends that impact FCS education. Participants gave oral and written feedback on the draft and made recommendations for the review and dissemination of the standards.

The April 2004 draft also was featured at a workshop at the June 2004 annual meeting of the American Association of Family and Consumer Sciences. This AAFCS workshop proved especially valuable due to participation by more than 100 professionals, including university faculty and administrators, content specialists who work with the Cooperative Extension Service, state department of education personnel, and middle and high school teachers. The extended, 3-hour time frame provided opportunities for participants' individual examination of the draft, for structured small-group discussion, and for oral and written feedback on the draft (Fox, Erickson, & Stewart, 2004).

As has been described, during the *Framework* phase two major drafts of the standards were developed and circulated for review. The second, April 2004 version, had particularly extensive review through e-mail distribution to Development Panel participants, at the NASAFACS meeting, and through systematic examination during the workshop at the AAFCS meeting. At the conclusion of this phase, the leadership team organized the feedback these groups had provided in preparation for the fourth and final phase of the standards-development project.

Final Design

The Final Design phase of the project was accomplished in fall 2004. Early in September a four-member group (Patricia Erickson and Wanda Fox from the leadership team and Lucy Campanis and Bette Montgomery as Development Panel representatives) reviewed the input that had been gathered from the April draft and honed it to a set of ten topics with corresponding statements. An online survey tool and procedures approved by the Institutional Review Board of Bowling Green State University were used to disseminate this September 2004 draft to the project e-mail list, which by now included more than 300 people who had attended conference sessions or otherwise expressed interest in the standards. Respondents were asked to rate each of the ten topics and corresponding statements on its importance as a component of standards for beginning FCS teachers and to describe what teacher candidates should know and be able to do in each area. They also provided overall feedback about the standards.

A second Development Panel meeting was held October 29-31, 2004. Thirty-six professionals from 20 states participated, just over half of whom had attended the previous year's meeting. This meeting began with small group examination of the data from the online survey, followed by summary reports to the entire group. The process then shifted to a whole group effort in which the participants agreed on the ten topics and how these would be arranged in the document. The group clarified and defined the standards by considering a range of philosophical, institutional, and programmatic perspectives. This deliberative process enabled very thorough consideration and led to eventual consensus on the exact wording for each of the ten headings and statements included in the standards.

Following the meeting, the leadership team developed the introductory paragraph of the *Standards* based on topics that were identified during the group discussion at the Development Panel meeting. External reviewers examined the document and final edits were made. Early in December 2004 the proposed *Standards* document was disseminated to the NATEFACS

membership for their final review, and a vote conducted via e-mail resulted in overwhelming approval. The approved *National Standards for Teachers of Family and Consumer Sciences* document was presented and disseminated at the December 2004 ACTE annual meeting (Fox, Erickson, & Stewart, 2004b) and subsequently posted on the NATEFACS Web site (http://www.natefacs.org). Endorsement by the Family and Consumer Sciences Division of ACTE followed. This was achieved through e-mail communications initiated by Karen Mason, ACTE vice-president for the FACS Division, through which the members of the FACS Division Policy and Planning Committee voted to endorse the standards.

During 2005 and 2006, the Standards were disseminated and implementation strategies shared at several conference sessions (Fox, Erickson, & Stewart, 2005a, 2005b, 2006; Fox, Stewart, & Erickson, 2006a, 2006b). National meetings of FCS teacher educators continued, building on the *Standards* and addressing related research topics. Proposals were requested and a series of manuscripts were developed that related to the standards. These manuscripts were refereed for publication in issues of the *Journal of Family and Consumer Sciences Education.* Thus, the *Standards* continue to provide a basis for scholarship, research, and program development in family and consumer sciences teacher education.

The *National Standards for Teachers of Family and Consumer Sciences*

The *National Standards for Teachers of Family and Consumer Sciences* document (NATEFACS, 2004) is presented in Appendix A. It includes two parts. The first part is an introductory paragraph delineating the purposes, characteristics, and structure of the standards. The second part presents the set of ten standards.

The introductory paragraph of the document highlights several issues critical to the development of the *Standards,* as discussed in earlier sections of this article. The paragraph also provides a basis for implementation. In particular, the phrase “integrated set of standards,” emphasizes that although the ten standards are presented individually, they will be implemented in connected and complementary ways. The paragraph goes on to state, “These standards are unique to FCS teachers. In addition, the beginning FCS teacher has general education background and meets overall professional education standards.” These sentences clarify the focus of the *Standards* on unique characteristics of FCS teachers, while recognizing that FCS teacher candidates are expected to have additional educational background and professional competencies, as are teachers in other areas.

The decision of how to arrange and sequence the ten standards is explained by the statement, “The first four standards focus on FCS content; the remaining six emphasize professional practice. In each of these two groups, the standards are arranged alphabetically.” This arrangement distinguishes between the content and professional practice standards while keeping all ten standards in a holistic set. Furthermore, the alphabetical arrangement within each of the groups reflects the equal importance of all ten standards.

Each of the ten standards includes a heading and a descriptive statement. The statements are written as actions, using verbs that describe higher cognitive levels, such as analysis, synthesis, and evaluation. Each standard describes a different dimension of a beginning FCS teacher’s abilities and was designed as a stand-alone element that would be meaningful if read and used individually, such as in accreditation documents. At the same time, the individual standards were constructed to be non-redundant statements that would be integrated with other components of teacher education. For example, these FCS-specific *Standards* interface closely with other teacher-education standards for broad-based professional education and for

developmental levels. They also connect closely among each other, both within and across the four content-focused standards and the six focused on professional practice. In a teacher education program, an individual standard could be addressed in one or more courses and/or field experiences. Likewise, multiple standards could be addressed in a specific course, and this course could be geared specifically for FCS teacher education, for multiple areas of teacher education, or for specific FCS content areas.

In all cases, standards-based teacher licensure emphasizes documentation and assessment of teacher candidates' knowledge, attitudes, and skills in relation to the standards, more so than their completion of specific courses, field experiences, or other program inputs. The documentation and assessment incorporate all of the standards for which teacher candidates are accountable. They also verify their impact on middle and high school student learning. Overall, the *National Standards for Teachers of Family and Consumer Sciences* delineate those elements that are unique to beginning FCS teachers (Fox, Stewart, & Erickson, 2007).

Discussion and Implications

The *Standards* provide a national base for family and consumer sciences teacher education. As such, connections are possible with other professional accreditations, certifications, and licensures. Diversity and autonomy among states are particularly important considerations as the *Standards* are implemented. During the development process for the *Standards*, a purposeful distinction was made between national standards for teachers, state teacher licensure, and teacher education programs at particular institutions. It can be challenging to find an appropriate balance among these entities that enables national continuity and yet provides latitude for individual states and institutions. For instance, the FACS process areas of thinking, communication, leadership, and management, which are described in the introductory paragraph of the *Standards* document as "integrated throughout," are implemented differently in various states and localities, yet consensus was reached to list them in the introductory paragraph. In contrast, practical reasoning, which the leadership team identified as a key component of FCS education, was not specified in the *Standards* because of wide variations in how this concept is recognized and referred to in various states. Another issue relates to FCS content areas, with consensus achieved for the four core areas included in the *Standards:* Career, Community, and Family Connections; Consumer Economics and Family Resources; Family and Human Development; and Nutrition, Food, and Wellness.

Overall, in a standards-driven, policy-focused environment for education (Cochran-Smith, 2005) the *National Standards for Teachers of Family and Consumer Sciences* help to document the rigorous content and professional preparation expected of FCS teachers. The *Standards* provide a framework for describing a "highly qualified" FCS teacher, for promoting the value of FCS education, and for increasing opportunities for student learning in FCS. The *Standards* also provide a basis for research related to FCS teacher education. Possible areas for investigation include (a) analysis and description of the underlying knowledge, attitudes, and skills teacher candidates need in order to achieve the *Standards*; (b) identification of observable behaviors and materials that could be used as assessment indicators; (c) examination of various resources, strategies, and delivery methods for the preparation and assessment of teacher candidates; (d) exploration of potential collaborations among various professional entities and institutions to accomplish teacher education; and (e) documentation of relationships among teacher education, teacher qualities, and middle and high school student learning. Such research-based evidence would contribute to the growth and development of the field.

Conclusion

Development of the *National Standards for Teachers of Family and Consumer Sciences* was a major undertaking that is providing a foundation for continued enhancement of FCS teacher education. The shared goal, visibility, widespread communications, and numerous opportunities to contribute led to involvement by a wide range of stakeholders, including many who had not previously been involved with FCS teacher education or participated at the national level. Concurrently, NATEFACS membership increased and more people sought leadership roles within the organization. Changes such as these indicate that the *National Standards for Teachers of Family and Consumer Sciences* are contributing to the goal of strengthening family and consumer sciences education and its positive impact on individuals, families, communities, and careers.

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APPENDIX
National Standards for Teachers of Family and Consumer Sciences Document

National Standards for Teachers of Family and Consumer Sciences
National Association of Teacher Educators for Family and Consumer Sciences – Approved 12/04

The *National Standards for Teachers of Family and Consumer Sciences* provides an overarching model of excellence for what a beginning teacher in family and consumer sciences (FCS) should know and be able to do. The National Association of Teacher Educators for Family and Consumer Sciences led FCS educators and other stakeholders from across the country to develop the *Standards*. The two-year, highly participatory process yielded an integrated set of standards with a high degree of national consensus, while allowing for variations in state teacher preparation and licensure. These standards are unique to FCS teachers. In addition, the beginning FCS teacher has general education background and meets overall professional education standards. As presented, the first four standards focus on FCS content; the remaining six emphasize professional practice. In each of these two groups, the standards are arranged alphabetically. The FCS process areas of thinking, communication, leadership, and management are incorporated throughout. Across all ten standards, the beginning FCS teacher demonstrates knowledge, skills, and attitudes to enable student learning.

1. Career, Community, and Family Connections
Analyze family, community, and work interrelationships; investigate career paths; examine family and consumer sciences careers; and apply career decision making and transitioning processes.

2. Consumer Economics and Family Resources
Use resources responsibly to address the diverse needs and goals of individuals, families, and communities in family and consumer sciences areas such as resource management, consumer economics, financial literacy, living environments, and textiles and apparel.

3. Family and Human Development
Apply principles of human development, interpersonal relationships, and family to strengthen individuals and families across the lifespan in contexts such as parenting, care giving, and the workplace.

4. Nutrition, Food, and Wellness
Promote nutrition, food, and wellness practices that enhance individual and family well being across the lifespan and address related concerns in a global society.

5. Curriculum Development
Develop, justify, and implement curricula that address perennial and evolving family, career, and community issues; reflect the integrative nature of family and consumer sciences; and integrate core academic areas.

6. Instructional Strategies and Resources
Facilitate students' critical thinking and problem solving in family and consumer sciences through varied instructional strategies and technologies and through responsible management of resources in schools, communities, and the workplace.

7. Learning Environment
Create and implement a safe, supportive learning environment that shows sensitivity to diverse needs, values, and characteristics of students, families, and communities.

8. Professionalism
Engage in ethical professional practice based on the history and philosophy of family and consumer sciences and career and technical education through civic engagement, advocacy, and ongoing professional development.

9. Student and Program Assessment
Assess, evaluate, and improve student learning and programs in family and consumer sciences using appropriate criteria, standards, and processes.

10. Student Organization Integration
Integrate the Family, Career and Community Leaders of America student organization into the program to foster students' academic growth, application of family and consumer sciences content, leadership, service learning, and career development.

Notes

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The blind review of this manuscript was coordinated by Cecelia Thompson, editor of the *Journal of Family and Consumer Sciences Education*, and it was accepted for publication under her editorship.

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Career, Community, and Family Connections: Addressing the Complexities of Life Work in Family and Consumer Sciences Teacher Education

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The Career, Community, and Family Connections standard calls for family and consumer sciences teacher educators to help future teachers learn to "analyze family, community, and work interrelationships; investigate career paths; examine family and consumer sciences careers; and apply career decision making and transitioning processes" (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2005) This article describes how career, community, and family connections frame the content of the field, points out the limitations of dominate frameworks that work against use of a "connections" viewpoint, and suggests alternate frameworks, as well as strategies and resources, that can be used to implement the standard.

The nature and significance of life work roles, how they are enacted and connected across multiple contexts, and how they change over time, are arguably some of the most fundamental concepts in family and consumer sciences teacher education. To use an artistic metaphor, what this standard means is that family and consumer sciences teachers should be able to develop programs that fully capture the paintings and symphonies of life, and not just its individual colors and notes. Mary Catherine Bateson, who has researched the life stories of women and men who have made difficult life transitions successfully, put it this way:

> …women have [long lived] their lives experiencing multiple simultaneous demands from multiple directions. Increasingly men are also living that way. So thinking about how people manage this is becoming more and more important. One way to approach the situation is to think of how a painter composes a painting: by synchronously putting together things that occur in the same period, and finding a pattern in the way they fit together. [Another way is to] look at the change that occurs within a lifetime – discontinuities, transitions, and growth…like that of a symphony with very different movements that can characterize a life. (Bateson, 2005, n.p.)

At its most basic level, family and consumer sciences education seeks to help learners develop the knowledge, skills, and dispositions needed to make intellectually and ethically defensible decisions regarding the significant challenges of everyday living and to prepare for family and consumer-related careers (Fox, 2000). As I have argued elsewhere (Way, 2000), the real demands and responsibilities of everyday life are not easily compartmentalized, and many of today's most challenging questions, involve continuities and discontinuities among family, career, and community roles and responsibilities. For example, many adults have trouble reconciling work and parenting responsibilities, education leaders face controversy over business incentives to sell products in schools and the value of employment for school-age children, and communities struggle with how to balance private and public responsibility for youth behavior. The family and consumer sciences teacher education standard concerning career, community, and family connections challenges teacher education candidates to develop an understanding of

the complexity of life work (including the continuities and discontinuities among life work roles), and its significance to professional practice and the quality of personal and public well-being. It also calls for beginning professionals to develop an understanding of strategies and tools for designing educational programs that make 'life work' possible, meaningful, and productive.

Limitations of Dominant Frameworks and Practices

Thinking holistically about life roles and the multiple, interacting contexts within which they are enacted may seem straightforward and non-controversial. Most of those engaged in the modern field of family and consumer sciences understand that the field has recognized the need to address family issues critically, and within the broader societal context since the field was founded during discussions at the Lake Placid Conferences on Home Economics in the early 1900s.[1] And, family and consumer sciences education has been included as a specified and/or allowable use of funds under federal career and technical education legislation since its inception with the Smith-Hughes Act in 1917. The problem is that federal policy has variously cast family and consumer sciences education as principally: (a) preparation for the work of homemaking (e.g., Smith-Hughes); (b) preparation for home-related occupations such as food services or child care services or more recently as education which could also facilitate "balancing" work and family (e.g., federal Perkins legislation), as if they were not really integrated with either each other or other kinds of work such as community contributions. Several deeply ingrained traditions, often ones that have served the interests of those in positions of relative power, have worked against use of a more holistic view in the development of educational policies and practices.

A number of these conceptually-limited traditions have been discussed elsewhere (see, for example, Gregson, 1995 and Way & Rossmann, 1994) so they will be touched on only briefly here. One tradition is the industrial-era philosophy termed scientific management or "Taylorism," which served as the foundation for industrial-era manufacturing (Taylor, 1911). Assembly lines were originally conceived as a way to increase efficiency by breaking production into small tasks with workers specializing in only one task at a time. During industrial times, such compartmentalization of work did serve this purpose. However, some scholars have argued that such principles no longer serve the increasingly complex economy well, and in fact serve as outdated models for contemporary schools where subjects are dished out like they have little connection and teachers are not able to plan or teach collaboratively across disciplines (Way & Rossmann, 1994; Wilms, 2003). Terms like "core" and "encore" are, for example, used to distinguish academic subjects from others such as career and technical education programs, art, and music; as if they had little or nothing to do with one another or as if some were more "central" to being an educated person. It is interesting to speculate what it might mean to leave "no child behind" if Taylorist principles were not driving current federal education policy. Would the No Child Left Behind Act (2002) still focus mainly on increasing test scores in highly separated academic areas (e.g., science, reading/language arts, and mathematics)? Might it instead include teaching and testing related to life course planning? Community leadership? Financial literacy? Parenting? And the academic skills clearly associated with those subjects?

A second tradition that mediates against educational coherence is the widespread use of a male experience standard as a foundation for personal action and public policy. For example, it is still much easier for men than women to select a career based solely on personal goals and interests. One illustration is that the vast majority of U.S. children growing up in single parent

families live with their mothers only; over 80%, according to the Annie E. Casey Foundation (2006). Thus, public policy is more likely to call on mothers than fathers to consider how to meet children's needs and work demands at the same time. Welfare reform requires adult recipients to work in order to receive benefits for dependent children and places a lifetime limit of five years on those benefits (Personal Responsibility and Work Opportunity Reconciliation Act, 1996.) But most parents receiving public assistance are single women.

Still another tradition that works against developing programs to consider life as lived holistically is the present dominance of the instrumental action perspective in Western society. Instrumental action is the framework underlying the view that education for paid employment is more "valuable" than education for unpaid work roles in family and community, because the benefits (e.g., wages) are more easily quantified (Way & Rossmann, 1994). One visible example of this view is the manner in which the Gross Domestic Product (GDP) is calculated (What's Wrong with the GDP?, 2006). Neither the dollar value of household work nor of community volunteer service is included. However, most would agree that our nation could not function economically without these contributions and, in fact, losses of these resources are routinely considered in wrongful death litigation (Stephenson, 2005).

Contemporary Frameworks for Professional Action

Fortunately, there are a number of more contemporary frameworks that can be used to conceptualize and implement family and consumer sciences education programs that more accurately reflect today's interrelationships among career, family and community roles. Ecological systems theory, the theory of life careers, and social capital theory represent ways of thinking about how family, community, and work interrelationships affect personal and social development. These are important concepts to introduce to students as part of the content of both family-focused and job-focused family and consumer sciences education programs.

Two other frameworks, Epstein's (1995) concept of school, family, and community partnerships and Bryk and Schneider's (2003) model of relational trust, emphasize how interrelationships among those situated in various contexts such as family, community, and schools can positively affect educational outcomes among students. Family and consumer sciences teachers can use these concepts to enhance the effectiveness of their own programs and to serve as important resources on the topics in schools and communities more broadly. Brief descriptions of the frameworks follow.

Ecological Systems Theory

Ecological systems theory, proposed by Urie Bronfenbrenner in 1977, suggests that human development is a function of the interactions within and between the variety of physical and social contexts in which the individual resides. These contexts exist in a nested arrangement, one within the next, as follows: the *microsystem,* at the center, which is the immediate physical setting containing the individual, such as the family, school, and work site; the *mesosystem* which is the interactions among the microsystems, such as between family and work; the *exosystem* which is the broader social structures that do not themselves contain the individual, for example, the world of work or educational system; and finally, the *macrosystem* which is the belief systems of the culture that determine the existence and functioning of the other systems, for example, whether polygamous (versus monogamous) marital relations are permitted or whether capitalist (versus socialist) principles should govern economic matters (Bronfenbrenner). Much more information about ecological systems theory is available at the Psi

Café, a psychology resource site: http://www.psy.pdx.edu/PsiCafe/KeyTheorists/EcoApp.htm. Using an ecological systems framework would suggest that family and consumer sciences education programs focus on how development occurs over time and in particular, how the variety of physical, social and ideological contexts may facilitate and/or impede development.

The Theory of Life Careers

The theory of life careers, originally proposed by Donald Super (Super, 1980; Super, Savickas, & Super, 1996,) suggests that individuals participate in an array of interacting and interdependent roles throughout five stages of the lifespan (growth, exploration, establishment, maintenance and disengagement), including child, student, worker, spouse, homemaker, parent, citizen, leisurite, and eventually pensioner. The theory further posits that the roles are played out in four contexts or theaters: home, school, workplace, and community. Because both intrinsic and extrinsic values may be sought through any of these roles, the theory is useful in considering the interrelationships between various roles at different stages of the lifespan and in examining how much time/space is devoted to each of the roles in relation to what might be desired. Many resources for learning more about life careers frameworks can be found at Contact Point, a Canadian website focused on career-related resources, learning, and networking. It is located at: http://www.contactpoint.ca/resources/dbase.php?type=user_list&cat=&format=10&searchText=&maxResultsPerPage=10&section=&sortby=authors.

Social Capital

Social capital is another useful framework (rather cluster of frameworks) that can be helpful in teaching (and learning) how to analyze family, community and work interrelationships. Social capital can be thought of as non-economic resources that are gained by an individual (or community) as a result of the relationships that the person or community has. These non-economic resources can in turn enhance acquisition of economic resources (such as greater income).

James Coleman (1988) posited that people acquire social capital because of knowledge, norms, and reciprocal obligations that are shared among individuals who know each other. For example, I am more likely to go to college or get a “good” job if I know others that can tell/show me how to do it. Robert Putnam (2000) pointed out that relationships also produce social capital for communities (e.g., crime is reduced when neighbors know and watch out for each other). Pierre Bourdieu (1986) noted, however, that not everyone has access to the same kinds and levels of social capital. Such differences can seriously disadvantage those who are already less privileged in society (e.g., women, those with low income, and members of minority groups). Social capital theory suggests that family and consumer sciences education programs should give attention to how relationships provide resources for individuals and communities and, in particular, how important non-economic resources may be unfairly distributed because of such relationships. One of the best websites for learning more about social capital and how it can be used in teaching and learning is the Social Capital Gateway located at the University of Rome: http://www.socialcapitalgateway.org.

Concept of Family, School, Community Partnerships

Family, school, community partnerships is a concept that has been utilized by Joyce Epstein (1995) to create the National Network for Partnership Schools located at Johns Hopkins University. Using research suggesting that family and community involvement can enhance

student learning and development, Epstein created a model of types of involvement that schools can use to foster positive outcomes. These include promoting (a) positive parenting, (b) regular school-home communication, (c) volunteerism at school and in the community, (d) learning at home, (e) participation in school-related decision making, and (f) school-community collaboration. Family and consumer sciences education teachers are well versed in concepts such as the importance of parenting and home-school communication to educational achievement. Thus, teachers should be prepared to model development of such partnerships and also to point out how they and the family and consumer sciences education curriculum can serve as natural sources of expertise on these issues in the school setting. More information about the National Network for Partnership Schools and the types of involvement it seeks to promote can be found at: http://www.csos.jhu.edu/p2000/program.htm.

Model of Relational Trust

Relational trust is a construct that has recently been highlighted as necessary for building effective partnerships between schools, families, and communities, and also for building effective partnerships within the school that contribute to high levels of student academic achievement. Based on a 3-year study of 12 Chicago schools, Bryk and Schneider (2003) of the University of Chicago concluded that trust, between principals and teachers, between school personnel and parents, and among teachers themselves, was a critical resource for boosting student achievement over time. Four indicators of trust in these relationships were identified, including presence of respect (e.g., courteous interaction, listening in genuine ways), personal regard (e.g., caring about each other both personally and professionally), personal integrity (e.g., trusting each other to put the interests of children first, keeping one's word), and competence (e.g., believing in each other's ability and willingness to fulfill responsibilities). A particularly helpful resource on building trust in schools, which addresses the relationship between trust and family involvement, how to work with diverse families, and how to overcome obstacles to trust building, was developed by Brewster and Railsback (2003) and is available from the Northwest Regional Educational Laboratory at http://www.nwrel.org. Another interesting resource describing the importance of school culture in nurturing academic achievement, and in particular how teacher/student relationships can positively affect student academic identity and achievement, is discussed by Schaps (2003).

Strategies and Resources for Implementing the Standard

Helping pre-service teachers analyze the interrelationships among work, family, and career contexts from both personal and professional perspectives is an important first step in addressing this family and consumer sciences teacher education standard. Beginning professionals should also become familiar with strategies and resources for designing programs that help students investigate and prepare for family and consumer sciences careers and build capacity for meaningful lifelong career development.

Program Alignment - Career Clusters and Pathways

One of the most important strategies for designing and implementing family and consumer sciences education programs today is to ensure that programs are aligned with what are now being called programs of study, also often called career clusters and career pathways. The latest federal legislation that provides support for career and technical education programs, including those in family and consumer sciences education, was signed into law on August 12,

2006. Perkins IV (officially the Carl D. Perkins Career and Technical Education Improvement Act of 2006) contains several new emphases that apply to family and consumer sciences education, including a requirement that the local career and technical education program content be:

> aligned with challenging academic standards and relevant career and technical content in a coordinated, non-duplicative progression of courses [connecting] secondary education with postsecondary education…leading to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree. (n.p.)

The idea of career-related programs of study has actually been under development for several years, as a result of funding through the U.S. Office of Education and the support of the National Association of State Directors of Career and Technical Education (2006). The original work was based on an analysis of occupations listed by the U.S. Department of Labor in the O'NET (Occupational Information Network) database (http://online.onetcenter.org) and resulted in 16 clusters of occupations and a total of 81 career pathways within those clusters. The 16 clusters are: agriculture, food, and natural resources; architecture and construction; arts, audio video technology and communications; business, management, and administration; education and training; finance; government and public administration; health science; hospitality and tourism; human services; information technology; law, public safety, and security; manufacturing; marketing, sales and service; science, technology, engineering, and mathematics; transportation, distribution, and logistics. Now, with Perkins IV in place, states are free to either use the 16 career clusters identified by the United States Department of Labor or develop their own career clusters based on identified regional employment-preparation needs. The challenge for family and consumer sciences educators is that these clusters now vary across states (e.g., Indiana is using 14 clusters while Michigan is using six; see other state career and technical education profiles on the National Association of State Directors of Career Technical Education Consortium website located at: http://www.careertech.org/state_profile/). Also, there is not just one cluster to which family and consumer sciences education programs may obviously relate. Some states and local districts are designing programs that align with several clusters such as hospitality and tourism (culinary arts), education and training (child care services), and human services (family and community services programs). To be consistent with the new Perkins legislation (Perkins IV), states and local districts must not only design programs so that they link secondary and post-secondary education coursework and reinforce challenging academic content addressed in the No Child Left Behind Act of 2001 (2002) legislation, but also lead to industry-recognized credentials, certificates, or associate or baccalaureate degrees. In addition, they must also focus on high wage, high skill, and/or high demand occupations.

Family and consumer sciences professionals should be prepared to articulate how their programs address these imperatives of the legislation. The most recent National Assessment of Vocational Education (Silverberg, Warner, Fong, & Goodwin, 2004) indicated, for example, that child care and education and food service and hospitality programs were two of the four fastest growing career and technical education programs and were associated with occupations reporting higher than average employment growth. Secondary-level family and consumer sciences education programs are being designed in many states to lead to industry-recognized certificates such as child care teacher licensure and/or ServSafe food safety certification (http://www.nraef.org/servsafe) and are also being articulated with associate and baccalaureate degree programs in areas such as child development, family studies, textile and apparel design,

interior design, nutritional and food science, culinary arts, hospitality management, and consumer science.

Besides focusing on how to develop family and consumer sciences programs that focus on "occupational work," pre-service teachers should also be prepared to articulate how family and consumer sciences programs provide an important foundation in "family work" that is relevant to the entire family and consumer sciences education program as well as all other career and technical education programs. A growing body of literature shows, for example, that personal and societal economic well-being depends not just on having marketable job skills, but also on being able to manage personal financial resources effectively and successfully balance work and family demands. A number of resources are available for exploring these ideas, including the Families and Work Institute at http://www.familiesandwork.org, the Jump$tart Coalition at http://www.jumpstart.org, the National Council on Economic Education at http://www.ncee.net, and the National Endowment for Financial Education at http://www.nefe.org. A wealth of additional information about family and consumer sciences career pathways is available in the teacher resource directory posted on the website of the American Association of Family and Consumer Sciences a http://www.aafcs.org.

A second change in new Perkins legislation is an increased emphasis on accountability. Under the prior (1998) Perkins Act, the major provisions of the Perkins accountability system applied only to states. The new law extends the accountability system to local programs, which will now be required to report on separate core performance indicators for secondary students (Perkins IV, 2006). These will include factors such as student attainment of academic content standards and career and technical skill proficiencies, as well as student graduation rates, placement in postsecondary education and employment, and participation in programs that led to non-traditional fields. Performance data will also have to be disaggregated by special populations. Local recipients that fail to meet at least 90% of any level of performance for any core performance indicator will be required to develop a program improvement plan (Perkins IV).

To meet these new requirements, teachers will need to be proficient in collecting and using data, including student assessment data, for school improvement purposes. Basic familiarity with survey research methodology, descriptive and inferential statistics, and data analysis software such as *Statistical Package for the Social Sciences* would be extremely helpful. An excellent example of a conceptual framework for data-based decision making is *At Your Fingertips: Using Everyday Data to Improve Schools* (Levesque, Bradby, Rossi, & Teitelbaum, 1998). Creighton's (2007) *Schools & Data: The Educator's Guide for Using Data to Improve Decision Making* provides an outstanding introduction to quantitative data analysis software and its use in answering significant educational questions.

Work-Based Education Models, Tools, and Issues

There are a number of work-based education models and tools that can be used to help students prepare for family and consumer sciences careers and/or develop meaningful lifelong career, community, and family connections. To start, beginning family and consumer sciences professionals should become familiar with the broad concept of career education which suggests that career development is a lifelong process which ideally begins with opportunities to learn about work in elementary school (awareness), then middle school (exploration), and finally high school and beyond (preparation). This model suggests that career education should be included as a topic in family-focused parenting and child development classes as well as occupationally-

focused middle and high school family and consumer sciences classes. For both uses, it is important to distinguish between traditional and newer models of career development, which now give much more attention to lateral, versus simply vertical, career transition; the role of computer technology in career development; and the unique needs of ethnic minorities, women, and students with special needs, and the trend toward greater integration of life roles as technology blurs traditional boundaries of time and place. A great resource on career education trends and resources was developed by Brown (2003).

A number of other models are available for structuring middle and high school career-focused family and consumer sciences programs. In general, the models include some combination of school-based learning, workplace-based learning, and connecting activities. These include cooperative education programs, career academies, service learning programs and activities, and school-based enterprises. Pre-service teachers will want to become familiar with these general models (e.g., see Gray & Herr, 1998) as well as the job-focused family and consumer sciences curriculum guides in their home state available through state departments of public instruction. They may also benefit from reviewing exemplary programs in family and consumer sciences education. A number of the recent national teacher of the year awards, for example, have gone to individuals who have developed innovative career-focused family and consumer sciences programs at the middle and high schools levels. These awards have been published by the American Association of Family and Consumer Sciences (AAFCS) and can be reviewed at: http://www.aafcs.org/resources/index.html.

Service learning, used as a stand-alone approach or in combination with one of the other career-focused models, seems to have particularly good potential for helping students understand career, community and family connections, which is the focus of this standard. Two great resources related to service learning are the National Service- Learning Clearinghouse located at www.servicelearning.org and the independent federal agency, Learn and Serve America, which can be found at http://www.learnandserve.gov.

Other resources available for implementing career-focused family and consumer sciences programs that simultaneously give attention to family and community connections can be found sprinkled in a number of other locations. The Family, Career and Community Leaders of America student organization has an array of programs and activities that have long been successfully engaging students in exploring these relationships, including for example, the Career Connection and Community Service programs. These can be found at http://www.fcclainc.org, and are particularly useful because they also emphasize development of leadership, decision making, and problem solving skills that are highlighted in the national standards for family and consumer sciences education (National Association of State Administrators of Family and Consumer Sciences [NASAFACS], 2008).

Computer-based career development sites, many of which evolved from early occupational information systems, are also rich resources for implementing family and consumer sciences programs focused on career, community, and family connections, although they may not be identified as such specifically. Several of them, for example, include activities designed to help the user examine the relationship between desired lifestyle and career choices as well as educational requirements and opportunities. WisCareers (http://www.wiscareers.wisc.edu) is an example of a state-focused site of this kind. The most comprehensive government-supported career-related resource is the CareerOne Stop website maintained by the United States Department of Labor and located at http://www.careeronestop.org. It contains an extensive array of career information, labor market data, a searchable national job bank, and career-related

services locator. Persons responsible for secondary-level family and consumer sciences career-focused programs will also want to be familiar with state and national employment laws, and particularly those pertaining to youth employment. Typically, these cover such aspects of employment as work permits, minimum wage requirements, labor standards (e.g., hours of employment, breaks and meals, honesty testing, plant closings), fair employment laws, and family and medical leave policies. Most are administered through state departments of workforce development and in some cases, the equal rights divisions of these departments (see for example, the Wisconsin Department of Workforce Development website located at http://www.dwd.state.wi.us/er/labor_standards_bureau/default.htm). Such topics related to the employment of children and young adults are certainly relevant to both family-focused and job-focused secondary family and consumer sciences education programs, and more importantly, serve as a good example of why it is important to link preparation for career, community, and family roles in the secondary school curriculum.

Assessing the Standard

Since the career, community, and family connections standard focuses on helping teachers learn to prepare students for multiple life roles, it may go without saying that future teachers also need to be able to assess the relevance as well as the rigor of their instruction, but there are important forces working against such an approach. Current provisions of the No Child Left Behind Act have made "high stakes testing" the norm, despite the warnings of educational leaders (e.g., Cawelti, 2006, Daggett, 2005, Guilfoyle, 2006) that such approaches to assessment will lead to greater fragmentation of the curriculum and greater emphasis on rigor to the exclusion of relevance. Future family and consumer teachers need to understand these pressures and concerns, and be aware of alternative frameworks that can be used for assessing both the rigor and relevance of instruction.

Two such frameworks provide good examples. One is the Rigor/Relevance Framework developed by Daggett (2005) of the International Center for Leadership in Education and the other is the Guide to Authentic Instruction and Assessment developed by Newmann, Secada, and Wehlage (1995) while they were at the University of Wisconsin-Madison. Daggett's Rigor/Relevance Framework is a tool that can be used to distinguish assessments that merely measure knowledge acquisition from those that also assess students' ability to think about content in complex ways and apply what they have learned within and across multiple, unpredictable, and real-world situations. For example, a low-rigor, low-relevance student assessment might ask learners to plot data on a grid. A high-rigor, high-relevance assessment might ask students to devise a scale to measure the "family impact of public policies," graph test results, and describe how such data might be used in the family, community, or workplace.

The Newmann, Secada, and Wehlage (1995) framework is similar, but uses seven standards for judging assessment tasks and the extent to which they reflect authentic human achievement. These criteria are organized into three categories: (a) organization of knowledge (the degree to which learners can organize information and consider alternative ways of doing so); (b) disciplined inquiry (extent to which students understand key concepts/theories of the discipline, can use methods of inquiry of the discipline, and communicate understandings to others in writing); and (c) connection to the world beyond the classroom (task reflects a problem that is relevant to life beyond school and involves sharing or acting with an audience beyond the school). Extending the example above, in this model, students might be asked to share their

results with relevant community leaders such as the school board, city council, or state legislators.

Principles for Further Action

This brief review of models and strategies for helping pre-service family and consumer sciences teachers learn to address career, community, and family connections in secondary family and consumer sciences programs certainly cannot address all the possible options and opportunities, or barriers, that might be encountered in attempting to do so. Several overall principles can be used as guides for identifying and adopting other approaches for addressing the standard that may not have been mentioned here. These principles include the following.

1. *Considering a variety of subject-matter connections is fundamental to designing high quality FCSE programs.* It is important to give attention to the fact that student development will be shaped by interactions that occur both within and between career, community, and family contexts across the lifespan. Educators should seek to prepare students for life roles holistically and help learners appreciate that there is no one 'right' formula for composing a meaningful and satisfying life over time. Students will need learning opportunities that promote both personal and professional development and academic as well as occupational/vocational development. This underscores the importance of both family-focused and job-focused FCSE and explains why academic education must be well integrated with career and technical education.
2. *Relationships are as important to nurturing student development as academic, and career and technical education subject matter.* Secondary school students need opportunities to become familiar with the non-economic resources (e.g., norms, reciprocal obligations, and understandings known as social capital) that can only be harnessed through the relationships that are built in career, community, school, and family contexts. They need to know how these resources can contribute to academic achievement and career development. Also future teachers need to be mindful that establishing trusting relationships with others – students, administrators, parents, fellow educators - can pave the way for individual commitment, innovation, and program growth in ways that would not otherwise be possible.
3. *Career, community, and family connections are best addressed within a critical science-based educational framework, because the connections can work both for and against human development.* New FCSE professionals need to move beyond the status quo 'balancing work and family mindset' that suggests career, community, and family connections can be satisfactorily addressed through technical or technological solutions like simply accessing more career information or developing child care contingency plans. Unless, pre-service FCSE teachers also recognize, and learn how to address gender, race, and class-based challenges associated with career, community, and family roles, we will fail to realize the potential benefit of this teacher education standard.
4. *Considering both rigor and relevance in instruction are key to developing effective approaches to assessing the career, community, and family standard.* Future family and consumer sciences education teachers should be mindful of current pressures to emphasize primarily academic knowledge in student assessment systems. However, they should also be familiar with the limitations of such approaches to assessment and

prepared to implement more authentic forms of student evaluation that give attention to both rigor and relevance. Such approaches will better ensure that instruction organized around the career, community and family standard prepares students for life, and not just further schooling.

Footnote

[1]"The demand for [our field] which will be met in time is a different kind. It is the demand which shows that the making of bread is not an essential part of the making of a home…that the obligations of home life are not by any means limited to its own four walls, that [family and consumer sciences] must always be regarded in light of its relation to the general social system, that men and women are alike concerned in understanding the processes, activities, obligations, and opportunities which make the home and family effective parts of the social fabric." -Marian Talbot, Fourth Lake Placid Conference, 1902 (Stage, 1997, p. 28).

Family and consumer sciences education programs have historically been funded through federal vocational education legislation which has focused on preparation for work. The Smith-Hughes Act, which was passed in 1917 as the first piece of such federal policy, included funds to support family and consumer sciences education (then called home economics education), as well as agricultural education and trade and industrial education. It was argued that home economics was needed both to prepare girls for their future as homemakers as well as provide technical training for gainful employment. While family and consumer sciences education serves both domestic and occupational purposes and now serves students of both genders in nearly equal numbers (Werhan & Way, 2006), there is still very little acknowledgement in either education policy or practice of the interconnectedness of life roles. There have long been calls for more instruction within family and consumer sciences education focused on "balancing work and family" (e.g., Felstehausen & Schultz, 1991) and much has been written within the general education literature about home-school connections and in particular, the need for more parental involvement in education. However, strong traditions persist that work against designing educational programs that address career, community, and family roles equally.

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Family and Human Development: Developing Preservice Teacher Competencies

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This paper reviews Standard 3, Family and Human Development in the National Standards for Teachers of Family and Consumer Sciences *(National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004); explains expectations for beginning family and consumer sciences teachers; and gives examples of strategies for implementing the standard including family privacy, student diversity, accessing information, and questioning and reasoning skill development. Assessment strategies for the Standard are reviewed, and a brief annotated list of suggested resources is included.*

A national standard about family and human development reflects the longstanding interest of family and consumer sciences (FCS) educators in improving the well-being of individuals and families. Standard 3 of the *National Standards for Teachers of Family and Consumer Sciences* (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004) provides a model of excellence for the beginning FCS teacher and states, "Apply principles of human development, interpersonal relationships, and family to strengthen individuals and families across the lifespan in contexts such as parenting, care giving, and the workplace."

The scope and sequence for concepts about human development, interpersonal relationships, and family are outlined in several important documents. First, prospective teachers depend on university personnel to design a course of study that helps them develop a content base to satisfy state licensure requirements. For example, the Texas Education Association identifies a one-credit course for students in grades 9–12 titled Personal and Family Development, and lists essential content for this course including several areas in family and child development. Licensed teachers in Texas are expected to have the knowledge base for teaching this class when they graduate from university programs (Texas Education Code, 1998). Second, the *National Standards for Family and Consumer Sciences Education* (National Association of State Administrators for Family and Consumer Sciences [NASAFACS], 2008) identifies comprehensive standards for Family (6.0), Human Development (12.0), Interpersonal Relationships (13.0), and Parenting (15.0), and provides the family and consumer sciences educator with key learner competencies for middle and high school students. Third, The Framework for Life Span Family Life Education developed by the National Council on Family Relations (Bredehoft & Walcheski, 2003) identifies categories and key concepts about families in society, internal dynamics of families, human development, interpersonal relations, and parent education and guidance. Appropriate content for age-specific groups, including adolescents, is outlined to assist all family professionals in identifying missing pieces, assessing breadth and depth, and understanding needs and complexity of topics such as those outlined in Standard 3.

Each of these materials is designed to emphasize education for strengthening individuals and families and fostering growth of family relationships across the lifespan and in a variety of contexts including parenting, caregiving, and the workplace. While there may be wide variation

in which, how much, and when concepts about human development, family, and interpersonal relationships are introduced to students, prospective teachers are able to address content specified by Standard 3. It is the prerogative of the state to specify the broad parameters for this content.

The purposes of this article are to discuss the background and rationale for this standard, give examples of expectation statements and implementation strategies, and make suggestions for assessing the standard. We also include a list of additional annotated resources.

Background and Rationale

Historically, family and consumer sciences educators have a well-recognized voice in secondary schools that speaks to strengthening families. Other family professionals are beginning to recognize that individual well-being depends heavily on a well-functioning home as they recognize how the substance of everyday family living contributes to individual, familial, and community success (Aird, 2002; Doherty, 1997; Mendelson, 1999; Pipher, 1996; Zimmerman, 2003). Emerging societal problems often point to deficits in everyday family life in the home. These problems include high levels of family bankruptcy, extending well into the middle class; an epidemic increase in persons who are overweight and obese, especially among children and youth due to poor nutritional habits and lifestyle management; and the time-starved nature of contemporary family life. Family issues that were once considered private and personal are becoming the topics of television shows, news media, and dinner conversations (Doherty & Anderson, 2004). World and societal concerns that impact families such as war, health issues, natural disasters, and economics place educators in the position of trying to address complicated questions that students pose as the result of a global society (Brodkin, 2005).

Similar events and others yet unknown have resulted in renewed interest and public acceptance of marriage and family programs in public schools (Doherty & Anderson, 2004; Gardner, Giese, & Parrott, 2004). This acceptance is reflected in an informal poll that was conducted by the authors assessing how many states had FCS family and marriage programs taught throughout the state. Of the 30 states that responded, all had forms of family and marriage programs in their curriculum offerings. Thus, Standard 3 clearly identifies the family and human development domain for family and consumer sciences educators in secondary schools. Preservice teachers can be expected to gain the knowledge, skills, and attitudes needed to deliver high-quality programs for adolescent audiences.

NATEFACS standards for beginning teachers work in partnership with Interstate New Teacher Assessment and Support Consortium (INTASC) standards as tools to help beginning teachers determine what content will be meaningful and what subject matter is most important (INTASC, 1992). For example, as preservice teachers develop their emerging practices they are meeting NATEFACS (2004) Standard 5 as they develop plans for curriculum and instruction. INTASC Standard 1 is an indicator to assess whether preservice teachers are able to understand what content is important to address, how to organize the material, and how to present the material in such a way that it makes sense to learners.

INTASC Standard 3 is an indicator as to whether preservice teachers are aware of the diversity of learners and the content. For example, the content of family and human development must be presented in ways that are respectful to the cross-cultural population represented in particular classroom settings. Multiple perspectives should be presented in ways that capture a wide variety of methods and philosophies. One perspective should not be touted as right or wrong, rather learners should be made aware that they have the ability to select from those

strategies that reflect their cultural beliefs and values (Gollnick & Chinn, 2006; Grant & Sleeter 2007). In addition, instructional opportunities adapted to diverse learners should be an integral part of lesson planning so all students can benefit from content that can help strengthen families (NATEFACS, 2004, Standard 7). Cooperative learning groups, visual cues, demonstrations, and physical activity are examples of how to deliver content in culturally responsive ways (Allison & Rehm, 2006; Grant & Sleeter, 2007).

Understanding how secondary learners develop can help teachers formulate learning strategies that support students' intellectual, social, and personal growth (NATEFACS, 2004, Standard 6). For example, content that includes childbearing and marriage would be more appropriate for high school learners who are approaching the marriage and parenting stages of their lives. Safety and appropriate play strategies for children would be areas meaningful for middle-school learners, since tending children is often their responsibility at home (INTASC Standard *2*).

Instructional strategies that encourage students' development of critical thinking, problem solving, and performance skills should be interwoven throughout the course content (INTASC Standard 4). It is through the honing of these skills that students can learn to become problem solvers within their own homes, thus promoting healthy families within communities (Mimbs, 2005; NATEFACS, 2004, Standard 6). Case studies, scenarios, role plays, and other approaches are tools that can be used to present situations to aid in the development of problem solving techniques (Grant & Sleeter, 2007; Kroeger & Bauer, 2004; Pang, 2005). These national standards for beginning teachers help answer the call for accountability. INTASC standards help provide the overall indicators for excellence in teacher preparation; NATEFACS standards complement the INTASC standards and more clearly specify the content focus and pedagogy for beginning FCS teachers. Further delineation of Standard 3 proceeds in the form of expectation statements.

Example Expectation Statements

Expectation statements are broad statements that describe in more detail the knowledge, skills, attitudes, and/or behaviors of beginning FCS teachers related to the *Standards.* The statements are intended to serve as examples that individual states and/or institutions can adapt based on their local needs. Several criteria guided the writing for the sample expectation statements listed below and these criteria would be useful in writing additional statements. The first criterion was to use measurable, high-level cognitive verbs. Second, elements were used that encompassed the complete standard. Third, the statements were to further clarify expectations for beginning FCS teachers. And finally, the expectations were to have potential for assessment (NATEFACS, 2005). Sample expectations for Standard 3 include:

1. Relate principles of human development, interpersonal relationships, and families to continuing concerns that families face across the lifespan.
2. Critique principles of human development, interpersonal relationships, and families according to the contexts in which individuals and families function (NATEFACS, 2005).

The purpose of expectation statements is to further delineate expected competencies for prospective FCS teachers, thus states and institutions should write them based on their specific needs and goals. These statements then give direction for implementation plans.

Implementation Strategies

Producing educators to implement the standard of family and human development presents a variety of challenges. FCS teachers are prepared at state and private universities of various types and sizes. While there are challenges unique to these settings in preparing preservice teachers, there are common issues that all professors/instructors face as they prepare prospective teachers to address Standard 3 in secondary schools. The issues of family privacy, student diversity, accessing information, and questioning and reasoning skill development seem especially relevant to prospective teachers in successfully implementing this standard.

Family Privacy

Family privacy is a sensitive domain and laws in some states restrict teaching certain issues surrounding family and human development. For example, teaching information about birth control and abortion often are covered by law and the beginning teacher must be aware of the restrictions placed upon certain content in the classroom.

Besides content, a course related to family issues also involves affective and experiential components. Personal elements such as feelings, motives, attitudes, and values are key elements of family life education (Arcus, Schvaneveldt, & Moss, 1993). Classroom participants like to hear examples while they learn and they will want to tell their stories, express feelings, and be encouraged to try out new behaviors in family settings. In doing so, the teacher and students both risk overstepping bounds of family privacy and state laws designed to protect privacy. Teaching examples need to respect confidentiality and avoid targeting or embarrassing students and teachers (Miller, 2005). Prospective FCS educators can benefit from a framework that helps identify appropriate levels of involvement and sets boundaries for disclosure. The Levels of Family Involvement (LFI) model (Doherty, 1995) identifies five hierarchical levels ranging from minimal family involvement to a maximum level that involves family therapy. This model, shown in Table 1, can be adapted to prospective FCS educators.

Table 1
Levels of Family Involvement for Family and Consumer Sciences Educators

Level	Characteristic	Application to FCS Educators
1	Family emphasis minimal	In the context of the institutional school setting, teachers interact with parents about child's educational progress.
2	Information and advice	Teachers dispense information and need a knowledge base about content along with clear communication and delivery skills.
3	Feelings and support	Engage students in cognitive learning in Level Two and add affective domains of learning by eliciting feelings and experiences.
4	Brief focused intervention	Work in group settings to solve common family problems and concerns.
5	Family therapy	Interact with distressed family members as therapy or other community professionals.

Source: Doherty, 1995

Levels Two and Four form the outside boundaries of family life education. At Level Two, teachers share information and advice about different aspects of family life. Involvement with students is mainly on a cognitive level and is devoted mostly to exchanging ideas and information and making recommendations, but not necessarily being concerned about the students' feelings and personal concerns about the topics. Level Four requires some training in therapeutic techniques. Orientation toward the family is more systemic, complex, and intensive, and a more detailed scenario of family functioning is entailed. The prospective FCS teacher would not be expected to have these Level Four skills.

The FCS preservice teacher will likely concentrate skill development at Level Two by building a solid knowledge base and, with experience, will move to Level Three to give students the opportunity to develop a personal awareness of their own feelings in relation to the content and to others in the class. In the classroom the FCS educator works to elicit expressions of feelings and concerns, listens, helps normalize reactions, and engages students in collaborative problem solving. Beginning FCS educators may recognize family or psychological dysfunction, but their role at Level Three is not to try to intervene, rather to make referrals that are appropriate to the situations. It is important to note that the goal at Level Three is to make learning personally focused and to involve the affective domain to stimulate meaningful change. Information and giving advice at Level Two, for example, may lack sufficient depth to stimulate meaningful change in most cases, whereas students who take ownership of the information and apply it to personal situations are more likely to change behaviors.

The LFI classifies two levels, Levels One and Five, outside the realm of education for family life. A Level One program is not considered family life education, but serves to facilitate access of family members to each other only for legal and/or practical reasons, not necessarily to influence or promote positive family interaction. For example, a preservice FCS teacher will learn to interact with parents about their child's progress in school but the goal is not to change family patterns or provide education about human development or family life. Level Five is considered outside the domain of family life education because this level engages family members who are difficult to engage, thus the professional needs clinical skills that the FCS educator is not expected to have. At Level Five, the clinical professional is required to generate and test hypotheses about the family's difficulties and to work intensely with family members to change destructive patterns (Miller, 2005).

Concerns for family privacy should permeate all aspects of the curriculum during planning, implementation, and assessment. The beginning FCS educator can develop personal teaching skills that help protect family privacy while also helping students learn and develop individual and family strengths.

Student Diversity

Because of the diversity of families and individuals, FCS teachers must bring multiple perspectives into instruction so all learners feel part of the curriculum. To prepare beginning teachers for working with diverse learning populations, preservice teachers need opportunities to develop sensitivity to the cultural views of gender roles and families. Thus, teachers must know the dynamics of their student populations and be sensitive to cultural views when formulating content. In addition, preservice teachers must understand that they, too, have a cultural lens that can influence course content and interactions with students (Allison, 2003; Delpit, 1995; Gay, 2000; NATEFACS, 2004, Standard 7; Pang, 2005; Sleeter & Grant, 2007 7). Teachers must not allow personal biases and family experiences to negatively impact classroom outcomes.

Teaching strategies for developing positive classroom climates and inclusion are foremost in building the type of classroom that is supportive, respectful, and nonjudgmental of students. This will ultimately lead to fostering and nurturing the principles of human development and family relations (Allison; Schmuck & Schmuck, 1997). As educators develop cultural awareness, they can also guard against over-simplifying family life or depending on static lists of group characteristics that may be stereotypical or incomplete descriptions of families' experiences (Allen & Blaisure, 2003).

Opportunities must be provided for preservice FCS educators to develop lesson plans that contain culturally responsive, researched-based approaches that help recognize the needs and strengths of diverse learning populations (Allison, 2003; NATEFACS, 2004, Standard 7). Opportunities to teach these lessons with the content of home and family should be provided in actual classroom settings. This can help preservice teachers create confidence by addressing content that new teachers may be uncomfortable presenting.

There are many at-risk students who can benefit from the content of family and human development. They will often acquire knowledge and reasoning skills needed to help resolve recurring family issues (Montgomery & Davis, 2004). Thus, school counselors often encourage at-risk students to take family and consumer sciences classes. Beginning teachers find themselves teaching a great number of at-risk students whom they may be ill-prepared to instruct (Winitzky & Kauchak, 1997). Colleges need to develop curricula that will help teachers develop and implement strategies that are proven to work with at-risk students (NATEFACS, 2004, Standard 7). For example, communicating positive expectations, soliciting parent involvement, using high levels of student classroom involvement, giving frequent quizzes, and using grading practices that promote success are successful strategies (Allison, 2003; Eggen & Kauchak, 2001; Moore, 2003). If teachers do not develop adequate teaching skills and strategies to instruct challenging students, the content that is so valuable for this population is not effectively implemented.

Accessing Information

Prospective FCS teachers must include the latest and best research in the content and know where to go for information that may surface as a result of class discussion about family and human development. Unprecedented changes in the composition and function of schools, families, and communities mean that strategies educators used 20 years ago do not meet the needs of current classroom learners (Burke, 2002; Cunningham, 2003; Parker, Warner, & Zasadny, 2002). For curriculum about family and human development issues to remain relevant, it must be constantly examined and updated. Educational institutions have a responsibility to prepare beginning teachers who are "information literate." This term was coded by the American Library Association to mean that an individual must be able to determine when information is needed, know where to retrieve that information, evaluate it, and use it effectively (Murray, 2003).

A teacher must have ready access to and information from a variety of sources. If teachers are to strengthen individuals and families with tools that can be applied in students' lives, teachers must know where to go to obtain needed information, make sense of all of the information that can be accessed, and make knowledgeable curricular decisions (Murray, 2003). Instructional strategies and learning experiences must be examined with the understanding that knowledge about human development, interpersonal relationships, and family is changing so fast that conventional curriculum can no longer supply students with fact-based learning needed for

the challenges that they will face. Principles must be taught that will foster meaningful human relationships long after students are out of school (Barnard, Nash, & O'Brien, 2005; Murray).

Developing teaching strategies that foster contemporary literacy in preservice teachers must be integrated into all aspects of higher educational curriculum. Traditional research papers and library skills do not adequately empower an information literate student (Murray, 2003). Problem-based learning that integrates content with technology has proven to be successful in teacher education programs (Macklin, 2002). To foster lifelong learning skills, teachers need instruction about how to successfully implement cooperative learning groups in partnership with problem-based experiences in the classroom. Preservice teachers who have had experience in problem-based learning as it relates to families can more successfully use this experience when they plan lessons for their own classrooms (Rockman, 2004).

Questioning and Reasoning Skill Development

Reasoning skill development helps the prospective teacher develop the ability to solve problems and find answers in light of these issues and other problems. Traditionally, students come to the classroom with reasoning skills that parents have helped them develop. Sometimes, however, families fall short of meeting the requirements for optimal levels of development, and the responsibility then falls on the community to meet the needs of students (Montgomery & Davis, 2004). FCS educators teaching family and human development have two avenues for helping students improve reasoning and questioning skills. First, reasoning is important in "a field of study so deeply enmeshed in developing human potential" (Vincenti & Smith, 2004, p. 69). Vincenti and Smith argue that a critical science perspective can enhance the practice of FCS educators as they learn to question assumptions, beliefs, and values; recognize the value of different points of view; and articulate rational arguments. Contextual factors such as individual and family beliefs and values have a place in this discourse, and the dialogue includes both short- and long-term consequences of actions families and individuals take. Critical science skills cannot be learned in one course, but need to be an ongoing process throughout the teacher preparation curriculum.

Second, teacher candidates need practice to learn effective questioning strategies. Researchers have found that more effective teachers ask more questions and acquire greater classroom participation and student engagement (Henderson, Winitzky, & Kauchak, 1996). Teachers that encourage students to justify their answers and solicit creative solutions to problems are more effective in classroom interactions (Fraenkel, 1992). Instead of formulating questions that elicit a yes, no, or single-word response, questions that cause students to delve deeply to demonstrate learning should be effectively implemented into content (e.g., How do decisions that I make effect what happens in my family? What might be the best time to approach members of the family with a matter that is important to me? Why is timing important? What would happen if an extended family member were to live in the home? What adjustments would have to be made in the household? What resources would be involved that might be altered with an addition to the household?). When students learn skills of critical thinking and problem solving, they have a knowledge base that they can access in teaching about family challenges (Montgomery & Davis, 2004). Preservice teachers who are prepared to be critical thinkers and who have learned to be sensitive to family privacy and student diversity, and to access authoritative, relevant information are also prepared to deal with the integrative nature of family and human development concepts.

The *Standards* have been designed to interrelate, connect, and build on fundamental concepts. With national emphasis on secondary school reform, the role of the teacher has been redefined from a knowledge specialist in one area to a knowledge guide in many areas that will facilitate student learning (Carnegie Council on Adolescent Development, 1989; Center of Education for the Young Adolescent, 1994; National Association of Secondary School Principals, 1996). This promotes learning that is both holistic and experimental. For example, as students learn about the importance of nutrition and meal planning, emphasis can be placed upon the importance of families dining together. This process helps to encourage interpersonal relationships that will ultimately strengthen families as they enjoy each other's company, facilitate communication, and solve problems together. This shows that the problems families face are not solved in isolation but are interconnected just as concepts should interrelate and build upon basic interrelated principles. Vincenti and Smith (2004) stated:

> Although individuals within family units or those living alone are engaged in obtaining the physical aspects of life, for example, food, shelter, clothing, and other material resources, they now have higher expectations about the aspects of life that make them more human, for example, relationships, communications, and caring for each other. FCS professionals are uniquely able to use an integrative interdisciplinary approach with a primarily preventative orientation to understand and address practical perennial problems of everyday life. (p. 67)

In addition to integration of the standards within the FCS content area, it is vital for teachers to interface with content outside of FCS programs. Curriculum mapping and cross-curricular instructional techniques should be included in college methods courses. These strategies provide opportunities for teachers to demonstrate the importance of FCS standards as they bridge the connection between learning and application to all curricular areas (Grant & Sleeter, 2007; Rauma, Himanen, &Vaisanen 2006; Shamsid-Deen & Smith, 2006). To illustrate, English, geography, foods, and Teen Living teachers worked together to create a cross-curricular unit on love that met the required standards in all subject areas. The geography teacher focused on how conceptions about love developed in Europe. He examined various cultures' view of love. Emphasis was placed on how romantic love is only one part of the emotion. Love of country, family, religion, and principles are also strong love emotions. The English teacher used the play, *Romeo and Juliet,* as a vehicle to address teen's love issues such as: Is there love at first sight? What is the difference between love and infatuation?

The FCS teacher provided a historical overview of how food has been a vital component in family celebrations throughout the ages. Do certain foods make people fall in love? Food often conjures many emotions. The FCS Teen Living teacher investigated the subject of love using teen responsibility in love relationships. The consequences of love opened discussion on sexually transmitted diseases, date rape, teen pregnancy, and the law. This teaching strategy had a high degree of student success because students were able to see how concepts have application in all aspects of their learning. In addition, teachers experienced how FCS is a meaningful component and a valuable asset to school curriculum (Moore, Earl, Huntington, & Kruegar, 1997).

Assessing the Standard

How will we know if preservice teachers are learning the important concepts of the *Family and Human Development* standard? How are we going to assess various dimensions such as knowledge, beliefs, and skills? What outcomes will determine the extent of the preservice

teachers' understanding? Authentic assessment is an important part of the evaluation process. Authentic assessment is realistic, replicates real-life situations, uses a wide range of knowledge and skill to execute a task, and provides practice and feedback (Ayala, 2005; Wiggins & McTighe, 2006). Assessment can take place as preservice teachers develop a product such as lesson plans and activities for the classroom. Does the plan reflect accurate family and human development standards into the content? If the preservice teacher has developed the necessary concepts to teach the content, it will be reflected in the lesson plan.

Performance tasks are another form of authentic assessment. As preservice teachers are observed teaching in classroom settings, the accuracy of family and human development content should be carefully scrutinized. Evaluators could easily determine the mastery of content through the use of rubrics that assess the preservice teacher's delivery. Indicators could specify what criteria would designate an understanding of the human development and family content. For example, a four-point scale could help to evaluate whether the information was presented proficiently or poorly. Rubrics help to fine-tune the lens which evaluators use to rate student performance. This information would provide specific criteria and a common language that is understood by the evaluator and the student (Wiggins & McTighe, 2006).

Short investigations are another form of authentic assessment. They often start with a motivator such as a problem, song, excerpts from a book, video clip, or newspaper article. Preservice teachers would be required to interpret, describe, calculate, explain, or predict using the content of family and human development as a basis for response.

In addition, concept mapping can offer another form of assessment with short investigations (Ayala, 2005). This strategy can help preservice teachers develop their understanding of the connection between concepts helping them to gain a deeper understanding of the content (Eggen & Kauchak, 2001). For example, factors which impact the development of modern families could be mapped to assess how well students understand different variables impacting families today. This strategy can help to develop depth and complexity in a beginning teacher's understanding. In addition, that understanding will help new teachers make connections to other content areas.

Open-ended questions are another approach to assessment. Similar to short investigations, open-ended response questions use a motivator. Students respond by using written or oral reports, or creating a drawing, diagram, chart, or graph (Perlman, 2003). A portfolio is another form of authentic assessment that documents learning over time. This long-term perspective accounts for improvement and helps prospective teachers understand the value of self-assessment, editing, and revision. A portfolio can include journal entries and reflective writing, peer reviews, artwork, diagrams, charts and graphs, group reports, notes and outlines, and/or rough drafts and polished writing (Corcoran, Dershimer, & Tichenor, 2004; Perlman, 2003). Portfolios can also be used to evaluate preservice teachers' performances in the family and human development content areas through videotaped lessons and other activities. Rubrics could be used to assess the accuracy of content through self, peer, or instructor review (Neill, 1996).

Finally, self-assessment in a class related to human and family development requires prospective FCS educators to evaluate their own participation, process, and products. Evaluative questions are the basic tools of self-assessment. Written or oral responses are given to questions such as, What was the most difficult part of this project? What should be done next? What could be done differently the next time? What are the three most important outcomes of this project? As preservice FCS educators use established sets of criteria to assess their own work, they will

develop skills for implementing authentic assessment. How assessments will be made should always be clearly defined (Corcoran, Dershimer, & Tichenor, 2004; Perlman, 2003).

Conclusion

In conclusion, establishing standards helps to give a clear focus and common language for FCS teacher development. Because of the unique position of FCS educators who speak to strengthening families, Standard 3, Family and Human Development is an important part of the *National Standards for Teachers of Family and Consumer Sciences* (NATEFACS, 2004). Producing educators who implement the standard offers many challenges. Family privacy, diversity, accessing information, and questioning and reasoning skill development are important issues in preparing teachers to become competent in the area of family and human development.

Assessment of the standard becomes most meaningful if authentic assessment strategies are implemented. In addition, universities have the task of fostering teaching proficiency in preservice teachers through models, real-life experiences, and problem-based learning strategies.

Annotated List of Suggested Resources

Books

American Association of School Librarians. (1998). *Information power: Building partnerships for learning*. Chicago: Author.

Standards are presented that encourage information literacy, independent learning, and social responsibility.

Bredehoft, D. J., & Walcheski, M. J. (Eds.). (2003). *Family life education: Integrating theory and practice.* Minneapolis, MN: National Council on Family Relations.

This publication is organized in three main sections. The first outlines current themes in family life education and serves as a starting point for discussing essential concepts. The second section presents the ten content areas of family life education and integrates them with the *Framework for Family Life Education.* Each content area includes a definition, objectives, specific concepts and goals. Age appropriate concepts are presented. Section three includes resource materials for teaching and practice. This publication is available from the National Council on Family Relations at http://www.ncfr.org/products.

Gorski, P. C. (2005). *Multicultural education and the internet.* New York: McGraw-Hill.

This book provides practical information on how multicultural learners can access and benefit from information on the internet. It also helps teachers in lesson planning and provides annotated resources.

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This is a debate-style reader that is designed to introduce students to issues in family development and personal relationships that are controversial. Leading sociologists, psychologists, and family professionals have been selected to present a variety of

viewpoints. A concise introduction and postscript are provided for each issue. Analyzing opposing viewpoints is a way to help students develop critical thinking skills.

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Instructional Strategies and Resources: Utilizing the Internet as a Technology Tool in Family and Consumer Sciences Classrooms

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The Internet is one pedagogically appropriate tool that can be successfully used to teach family and consumer sciences knowledge and skills. Strategies for integration of the Internet include locating and evaluating online information, using templates for technology integration, using family and consumer sciences content specific Web sites, using communication tools such as blogs and wikis, and using online assessment tools. Introducing these skills to pre-service teachers helps to develop their competence in and comfort with technology as a learning tool. The desired outcome is better preparation to engage students in multiple learning opportunities in a technologically advanced world.

An answer to the question "what should students know and be able to do?" after completion of a particular course of study has been sought throughout the history of education, most recently by the development of national content standards. The National Association of Teacher Educators for Family and Consumer Sciences (NATEFACS, 2004) recently developed and approved ten standards related to the initial preparation of family and consumer sciences middle school and high school teachers. Standard Six indicates family and consumer sciences initial teachers will be able to "facilitate students' critical thinking and problem solving in family and consumer sciences through varied instructional strategies and technologies and through responsible management of resources in schools, communities, and the workplace" (n.p.).

Expectations for this standard are further delineated as (a) justify the use of a variety of best practice strategies to help all students learn; (b) critique methods, materials, technologies, and activities as related to lesson goals and student diversity; (c) manage community, business, and industry resources to enrich all student experiences; and (d) integrate family and consumer sciences content knowledge and skills with pedagogically appropriate strategies and resources (NATEFACS, 2005).

Background and Rationale for the Standard and Expectations

Accreditation is the process by which a facility becomes officially certified as providing services of a reasonably good quality, so that the public can trust in the quality of its services (Wikipedia, 2006). A specialized accrediting body evaluates particular units, schools, or programs within an organization (Higher Learning Commission, 2003). The National Council for Accreditation of Teacher Education (NCATE), founded in 1954, is recognized by the U.S. Department of Education as a professional accrediting body for colleges and universities that prepare teachers and other professional personnel for work in elementary and secondary schools. NCATE has six standards used for evaluating teacher education programs. Related to instructional strategies and technologies, Standard One specifies:

> Candidates preparing to work in schools as teachers or other professional school personnel know and demonstrate the content, pedagogical, and professional knowledge,

> skills and dispositions necessary to help all students learn. Assessments indicate that candidates meet professional, state, and institutional standards. (NCATE, 2007, p. 4)

Another organization working for the improvement of teacher education programs is the Interstate New Teacher Assessment and Support Consortium (INTASC). INTASC has also developed a set of standards based on what effective initial teachers should know and be able to do. The INTASC Standards are written as principles. Principle Four, related to instructional strategies and technologies states, "The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills" (INTASC, 1992, p. 20).

Research indicates that teachers who understand how learning occurs are better able to select and develop curriculum that supports rather than undermines the learning process. Necessary for teacher success is ensuring that teachers have access to what is known about specific teaching strategies that foster more productive learning (Darling-Hammond & Bransford, 2005). Standard Six of the National Standards for Teachers of Family and Consumer Sciences reflects this premise and that of the NCATE and INTASC National Standards.

Use of the Internet as a Teaching and Learning Strategy

Numerous books and articles are written each year advocating that teachers implement technology in education. School workshops and state conferences include sessions on technology. It is difficult to find a university level teacher education program today that does not require students to complete technology coursework. When technology is properly implemented in the classroom, it can result in positive outcomes including increased student self-confidence and eagerness to learn (Kimble, 1999).

Since it burst on the educational scene in the 1980s, the Internet has expanded rapidly. Roblyer and Edwards (2000) identified "three primary reasons the Internet has become so popular: it is widely available, worldwide; it is easy to use, very simple and intuitive; and it is highly visual and graphical" (p. 209). As teacher and student access to the Internet continues to rise nationwide, opportunities for positive use of it as a teaching tool continue to expand. The information and communication capabilities offered by the Internet for education, research, commerce, and entertainment are seemingly endless (O'Neill, 1999).

Access to technology, including high speed Internet connectivity, is becoming increasingly available in schools today. As of fall 2003, nearly 100% of public schools in the United States had access to the Internet, compared with 35% in 1994; further, no differences in school Internet access were observed that could be based on any school characteristics (National Center for Education Statistics, 2003). Student-centered learning becomes a reality when students (a) learn to think critically about information they are accessing, (b) synthesize data and information received from multiple sources, and (c) use that information to solve problems and evaluate solutions (Maxam, 2002). Educators must prepare for a technology-rich future and keep up with change by adopting effective strategies that infuse lessons with appropriate technologies (Valdez, 2005).

Specific to family and consumer sciences, Daulton (1997) found an increase in teacher adoption rates for computer technology from 5% in 1983 to 83% in 1993. Another study conducted by Harrison, Redmann, and Kotrlik (2000) investigated Louisiana family and consumer sciences teachers perceptions of the value and usefulness of information technology. Their study included computers in general and specifically the Internet, laser discs, and video

conferencing. They reported that family and consumer sciences teachers placed a high value on information technology, should know how to use computers, and should have computers available for instruction.

In a recent survey, 91% of university faculty members rated "accessing information on the Internet as essential or required for achieving academic success in their course" (Osika & Sharp, 2002, p. 320). In the same study, 91% of students rated themselves competent in this area. Yet research shows students looking for information on the World Wide Web have a difficult time developing search queries and using a search engine (Lazonder, Biemans, & Wopereis, 2000).

Manley, Sweaney, and Valente (2000) identified three main reasons for family and consumer sciences professionals to stay current and knowledgeable about the Internet: (a) to be able to use the Internet as a tool in many family and consumer sciences related fields and access information quickly, (b) to help prepare students to live in a technologically oriented society, and (c) to prepare their students for today's workplaces. Levine (1995) urged educators to take advantage of new technology. He stated:

> We have to become so familiar with new technology that we can move beyond its glitter and begin to creatively exploit the uses of the technology to better facilitate learning. And, we must do this in ways that are highly valued by the learner. Taking advantage of new technology can't be merely a matter of saving money, or saving space, or saving time. It has to be a matter of improving the learning potential of people. (¶ 8)

Internet Learning Activities for Family and Consumer Sciences

The National Council for the Accreditation of Teacher Education (NCATE, 2007) Standard One further delineates the expectation that professional studies for all teacher candidates include knowledge and experiences with educational technology, including the use of computer and related technologies in instruction, assessment, and professional productivity. Perhaps the simplest and most straight forward way of integrating technology into family and consumer sciences classrooms is the potential of the Internet as a source of information.

Every topic covered in any family and consumer sciences course has corresponding information available on the Internet. This is one place where the evaluation of information and critical thinking skills can be taught. According to Colaric (2002), there are 800 million publicly indexable pages on the World Wide Web, existing on over 3 million servers, 86% of which contain commercial messages, with only 6% containing scientific and/or educational content. Anyone can put anything on the Internet. While in theory one might assume an ongoing proliferation of Web sites, evidence gathered by O'Neill, Lavoie, and Bennett (2003) suggested growth in the public Web reached a plateau in 2002. The authors theorized the rush to "get online" during the early years of the Web, was replaced with a desire to refine and develop existing Web sites since that time.

One essential task which needs to be taught is how to easily and efficiently locate information online. There are three basic categories of search tools available to accomplish this: (a) subject directories, (b) search engines, and (c) the invisible Web. The first category is subject directories, which are databases arranged by subject. They are easy to use and identify highly relevant information. Recommended general subject directories include Librarian's Index, Infomine, Academic Info, About.com, Google Directory, and Yahoo! (Barker, 2006). Search engines are a second tool for locating information online. Search engines search databases of full text Web pages residing on servers. Recommended search engines include Google, Yahoo!,

Search, and Ask.com. The operation of each of the search engines varies. Search engines allow you to access a great deal of information, however, the relevancy is not consistent. The final search category is the invisible Web, defined as Web pages that cannot be found in search engines and rarely are in subject directories (Barker). It is estimated there are two to three times as many pages in the invisible Web as the visible Web. Tutorials for teaching how to use and access search tools are readily available online.

Once information is located, another critical task is to evaluate it. Schrock (2001) identified five key questions to use in evaluating Web sites:

1. Who wrote the documents and is the author an expert?
2. What does the author say is the purpose of the site?
3. When was the site created and last updated?
4. Where does the information come from?
5. Why is the information useful for my purposes?

A number of lesson plans related to evaluating Web site content are available online (Schrock).

The interactive nature of the Internet also makes it an appropriate medium through which to carry out more extensive activities. Filamentality (2006) is one online resource available to teachers as a technology integration tool. This free site provides teachers with templates to easily construct online, interactive lessons for students. Five specific types of activities can be created. Filamentality labels and describes these activities as follows:

1. Development of a hotlist. A hotlist compiles the URLs for Web sites teachers have researched and found useful related to a particular topic. In addition to the link for the Web site, a short description of the type of information found at each Web site is included on the list.
2. Development of a scrapbook. If learners already have a general understanding of the subject they are studying (i.e., they have done some preliminary learning in class or with traditional resources), teachers might develop guidelines for a Web-based activity known as a multimedia scrapbook. In this activity, learners dig through a collection of Internet sites organized around specific categories such as photographs, maps, stories, facts, quotations, sound clips, videos, virtual reality tours, etc. Learners use the scrapbook to find aspects of the broader topic that they feel are important. Students then download or copy and paste this collection into a variety of formats such as a newsletter, desktop slide presentation, collage, bulletin board, or Web page.
3. Development of a treasure hunt. The basic strategy is for the teacher to find Web pages that have information (text, graphics, sound, video, etc.) that they think is essential to understanding a given topic. After the teacher has gathered these links, one key question is then posed for each Web resource link.
4. Development of a subject sampler. In a subject sampler learners are presented with a smaller number (maybe half a dozen) of intriguing Web sites organized around a main topic. This is a particularly effective way to engage students for many reasons. First, teachers have chosen Web sites that offer something interesting to do, read, or see. Second, students are asked to respond to the Web-based activities from a personal perspective. Rather than uncover hard knowledge (as they do in a treasure hunt), students are asked to describe their perspectives on topics, compare to experiences they have had, interpret artworks or data, etc. Thus, more important than the right answer is that students are invited to join the community of learners surrounding the topic, and they can see that their views are valued in this context.

5. Development of a WebQuest. A WebQuest presents student groups with a challenging task, scenario, or problem to solve. It is better to choose aspects of a topic that are under dispute or that at least offer a couple of different perspectives. Current events and controversial social and environmental topics work well. Also anything that requires evaluation will evoke a variety of interpretations. The reason the Web is so critical is because it offers the breadth of perspectives and viewpoints that are usually needed to construct meaning on complex topics. Students benefit from being linked to a wide variety of Web resources so that they can explore and make sense of the issues involved in the challenge (Filamentality, 2006).

In life outside the classroom, one way of becoming more knowledgeable may result from being immersed in a learning situation. Some experiential learning can be difficult to implement in a classroom (Nabeth, 2006). Simulation games using the Internet allow learners to experience some of the daily responsibilities, decisions, consequences, and pressures inherent in life, without being in the actual situation (Chamberlain & Cummings, 2003). There are many online tools related to simulations of family and consumer sciences content. Some examples include tools that allow students to analyze their dietary intake and activity levels; tools that relate to consumer economics, including balancing a checkbook and investing in the stock market; and tools related to decorating, such as simulating moving furniture or changing wall colors or flooring.

The Internet can also be used as a communication tool to facilitate interaction between students in a classroom at one location and students in another city, state, or country. Online journals, also known as blogs, are a place where students can interact while being monitored for student participation and writing skills. Reflection on current issues impacting families is one example with potential for a blog. A group communication project can be achieved by setting up a wiki. A wiki allows a group of people access to a Web site where all can work together on its creation. These strategies can be integrated into all family and consumer sciences content areas. Comparing apparel traditions by culture, investigating developmentally appropriate practices for interacting with children, and implementing healthy nutritional practices are all family and consumer sciences related topics adaptable to a wiki.

These interactive uses of technology need to be added to family and consumer sciences teaching methods courses or considered as part of a stand-alone course for family and consumer sciences teacher education students. Outcomes of these learning processes may include presentations, products, and projects. The examples provided above lend themselves to authentic assessment to gauge their effectiveness. Existing rubrics found online can be easily adapted to be used as an assessment tool for family and consumer sciences content. The Internet can be utilized by educators to develop valid assessment devices as a measure of online learning.

The use of technology in family and consumer sciences middle school and high school classrooms is contingent upon preparing teacher candidates to be familiar with its capabilities and comfortable with its usage. Robertson and Stanforth (1999) suggested faculty should incorporate Internet activities, projects, and curriculum content into resident instruction to increase students' positive attitudes toward computers. Such activities would then be conducted in a supported environment where students may begin to experience positive results from Web-based activities. Students with these opportunities during their years at the university would be well prepared to develop Web-based learning experiences inherent to quality instruction and professional advancement.

The Internet has vast potential to enhance critical thinking and problem solving skills of family and consumer sciences students. These skills can be taught through family and consumer sciences content when teachers teach students how to critically evaluate online information, and when students and teachers integrate credible online information into classroom activities via hotlists, scrapbooks, WebQuests, blogs, and wikis. As reflected in the National Council for Accreditation of Teacher Education, Interstate New Teacher Assessment and Support Consortium, and family and consumer sciences teacher education standards, varied instructional strategies are key to effective teaching. The Internet is one strategy with great potential for enhancing learning in the family and consumer sciences classroom.

Brief Annotated List of Suggested Resources

Sites Related to Locating and Evaluating Online Information

Easily and Efficiently Locating Information Online

Web Link: http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/FindInfo.html
This site is sponsored by the University of California, Berkeley. The main tutorial includes information on how to effectively use search engines, subject directories, and the invisible Web.

Evaluating Web Content

Web Link: http://www.hsl.unc.edu/services/tutorials/eval/Nuts.htm
This site is sponsored by the University of North Carolina. It includes questions for consideration in the categories of credibility, bias, accuracy, currency, relevance, significance, intended audience, and usability.

E-Valuating the Web

Web Link: http://school.discovery.com/schrockguide/pdf/07_01_cic.pdf
This site lists questions to ask when evaluating Web-based information.

Templates for Technology Integration

Filamentality

Web link: http://www.filamentality.com/wired/fil/index.html
This Web site is sponsored by AT & T. It provides easy-to-use templates and free Web space to educators who want to publish hotlists, scrapbooks, treasure hunts, subject samplers, or WebQuests.

WebQuest Resources

Web link: http://webquest.sdsu.edu
The WebQuest page is sponsored through the University of San Diego. It contains freely available training materials about WebQuests and links to many ready-to-use lessons, sorted by subject matter and grade level.

Content Specific FCS Resources

American Association of Family and Consumer Sciences (AAFCS) Directory of Online Resources for Classroom Teachers

Web Link: http://www.aafcs.org/fcs/index.html
This site provides a listing of family and consumer sciences resources for teaching related to the sixteen areas of study identified in the National Standards for Family and Consumer Sciences.

Communication Tools

Blogs and Wikis, Video Blogging
Web Link: http://www.ibritt.com/resources/wp_blogs.htm
This site includes articles, tutorials and templates for developing blogs and wikis for educational purposes.

Online Assessment Resources

Kathy Schrock's Guide for Educators
Web Link: http://school.discovery.com/schrockguide/assess.html
This site contains a collection of assessment rubrics for use on the World Wide Web that may be helpful for you as you design your own.

North Central Regional Educational Laboratory (NCREL)
Web Link: http://www.ncrel.org/sdrs/areas/te0cont.htm
NCREL specializes in the educational applications of technology. Look specifically at the link for technology in education under the Pathways for School Improvement heading.

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