Notes from Editor

The guest editors for this issue of the Journal of Family and Consumer Sciences Education - Wanda S. Fox, Patricia M. Erickson, and Daisy Stewart – were also the leadership team for the development of the *National Standards for Teachers of Family and Consumer Sciences*. This issue of the *Journal* is part of the ongoing efforts to provide a source of professional development for family and consumer sciences educators.

This is the fourth issue of the *Journal's* volume devoted to the publication of articles on the *National Standards for Teachers of Family and Consumer Sciences*. The articles in this issue 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.*

In each issue, family and consumer sciences educators devote energy and expertise in developing manuscripts containing pertinent information that can benefit the profession. To authors, you are valued and appreciated by the profession. The sharing of your expertise creates a potentially positive learning experience for those involved in teacher preparation.

To family and consumer sciences educators who served as peer-reviewers for this issue, appreciation is extended to you. Thank you for your commitment to the profession and for providing feedback on the manuscripts.

The intended purpose of the *Standards* is to serve as a benchmark for beginning family and consumer sciences teachers; therefore a primary audience consists of family and consumer sciences teacher educators who will possibly use these articles as a resource in preparing preservice teachers. However, both novice and experienced family and consumer sciences teachers are also audiences. Therefore, this series of articles on the *Standards* should be informative and useful for both intended and unintended audiences.

Bettye P. Smith
Editor

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*.

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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.

Consumer Economics and Family Resources: Importance of Financial Literacy

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This paper examines Standard 2, Consumer Economics and Family Resources of the National Standards for Teachers of Family and Consumer Sciences *(National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004). The background and scope of the Standard are reviewed and essential skills and processes needed for competency by beginning teachers are described. The* Standards *were approved in 2004 and intended as foundational competencies for beginning family and consumer sciences teachers. The focus of Standard 2 is the responsible use of resources. Therefore, this study examines literature on the content areas of consumer economics and family resources, specifically financial literacy and its impact on the responsible use of resources, the process skills used to teach these concepts, and examples of application of the content and process through best practices. A brief review of selected resources to assist teachers in Standard 2 is included.*

The *National Standards for Teachers of Family and Consumer Sciences* were approved in December 2004 by the National Association of Teacher Educators for Family and Consumer Sciences (NATEFACS, 2004). Included is Standard 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" (NATEFACS).

The premise behind the development of these *Standards* is that they are what beginning family and consumer sciences teachers should know and be able to do. There was considerable discussion at the *Standards* development meetings on the best way to include the wide variety of content in family and consumer sciences as evidenced in the *National Standards for Family and Consumer Sciences Education* for secondary students (National Association of State Administrators of Family and Consumer Sciences [NASAFACS], 2008). The progress of refining the *Standards* for teachers was challenging, but done for the purpose of making them general enough for states and other groups to make the necessary connections to the *Standards*, while still meeting the competency requirements unique to their location or program. It was determined that the process of "using resources responsibly" was more central to a requirement for beginning teachers than to expect competence in a wide variety of consumer-related subject matter that varies from state to state.

The new *Standards* are in keeping with our tradition of home economics and family and consumer sciences and the content it has encompassed over time. Many family and consumer sciences professionals are familiar with the Ellen H. Richards Creed, which includes the statement, "The utilization of all the resources of modern science to improve the home life"

(Baldwin, 1949, p. 17, as quoted in Blankenship and Moerchen, 1979, p. 6). In *Toward Better Teaching of Home Economics*, Fleck (1968) described eight issues for families that are central to the content in the teaching of home economics, four of which relate directly to the new Standard 2. They are (a) "consumption and other economic aspects of personal and family living," (b) "management in the use of resources, so that values and goals of the individual, the family or of society may be attained," (c) "textiles for clothing and for the home," and (d) "housing for the family, and equipment and furnishings for the household" (pp. 25-26). In the third edition of this text (Fleck, 1980), the emphasis of home economics content was five areas, three of which relate to the new Standard: (a) "consumer education and home management," (b) "clothing, apparel and textiles," and (c) "housing, living environments, furnishings and home equipment" (pp. 21-23).

At the core of family and consumer sciences is decision making regarding consumer choices. We are all consumers of goods and services, and beginning family and consumer sciences teachers need to be very familiar with and develop competencies in financial literacy, decision-making skills, and processes regarding the responsible use of resources to teach these skills and concepts to their students. By examining the related literature and best practices in teaching consumer economics and family resource management today and in the future, this paper will describe process skills needed to be competent in Standard 2 and the impact of financial literacy on the responsible use of resources.

Process Skills

The practical problem solving approach to teaching family and consumer sciences (FCS) and the development of a critical science methodology "has undergirded much of the curriculum work in the field since the late 1970s" (Thomas, 1998, p. 23). It integrates through and across all areas while emphasizing the reoccurring practical problems faced by families and the decision making processes to solve those problems. Many would describe the FCS classroom as an applied laboratory in which students get a chance to do hands-on activities that they will use in their home and work lives. The four process skills that are built into the *National Standards for Family and Consumer Sciences Education* (NASAFACS, 2008) are thinking/problem solving, communication, management, and leadership. This process skills orientation has been emphasized in FCS curriculum for secondary students in recent years and this orientation is applicable to Standard 2 of the *National Standards for Teachers of Family and Consumer Sciences* because it expects teachers to be competent in responsibly using resources in decision making. Vail (1998) stated that the national standards for secondary students "require students apply the process of reasoning for action" (p. 8). Chamberlain and Cummings (2003) described the four types of questions used in practical reasoning, which include "context, valued ends, means, and consequences" (p. 221). Knowing how to make decisions effectively that apply to context and circumstance, fit within access to resources, and have outcomes that lead to reasoned action to meet goals and needs requires the use of all four process skills.

The reasoning for action concept is essential to contextual teaching and learning, which was found to be prevalent among Georgia family and consumer sciences teachers, especially those who taught in work focused programs and teachers from rural areas (Shamsid-Deen & Smith, 2006). Mimbs (2005) found that Missouri FCS teacher leaders who were trained in the use of critical thinking and problem-based curricular approaches were successful integrating problem solving skills by modeling and practicing them with their students. Radford (1996) completed a study of Tennessee FCS teachers' analysis of consumer economics and management

concepts and determined that the decision-making process, consumerism, and the management process were concept areas the teachers felt more comfortable with than specific content like saving and investing, insurance, and credit.

Resource management concepts used in family and consumer sciences include systems theory which relies on the premise that every action or input into our system has a consequence and impact on us and others, and how we manage these inputs determines outcomes (Goldsmith, 2005). Anderson and Nickols (2001) emphasized understanding the family ecosystem as a key component in the integrative nature of the profession. It is important to remember that teaching facts and figures and theories and concepts is only part of the family and consumer sciences teachers' role in teaching consumer economics and family resources. Teaching students how to think critically, use process skills, make choices based on responsible reasoned action, and examine the context and consequences of the consumer decisions they make will provide them with the truly transferable skills they need to survive in a world where the facts and figures change constantly. The following section of this paper will provide a background from the literature in the common terminology and content areas important for competency in Standard 2.

Related Literature

Consumer Education: Definition and Objectives

Consumer education can be defined as the process of gaining the knowledge and skills in managing consumer resources and taking actions to influence the factors which affect consumer choices (Bannister & Monsma, 1982). Hellman-Tuitert (1999) reported that according to the 1995 Nordic Council of Ministers:

> The objectives of consumer education at school are to educate independent, discriminating and informed consumers. It is to equip the pupil with knowledge and insight into the conditions of being a consumer in a complex, multi-faceted society by providing basic knowledge in such areas as consumer legislation, personal finances, economics, advertising and persuasion, consumption and the environment, global resources, housing, clothing, price and quality, diet and health. Schools should contribute to making pupils aware of the influences they are exposed to with respect to life styles, consumer habits, values and attitudes. (p. 15)

Hellman-Tuitert (1999) summarized that the basic objectives of consumer education are to:

1. Give pupils ***knowledge*** to act as informed consumers.
2. Give pupils ***understanding*** of the functioning of society and the economy as a whole and the specific roles of consumers.
3. Develop ***skills*** to act as informed and responsible consumers.
4. Help students ***feel it is important*** to be an informed consumer.
5. Teach students ***to act*** as informed, educated and responsible consumers (pp. 14-15).

Family and consumer sciences teachers should have competence in basic consumer education to better illustrate it for their students through relevant applications. Being an informed consumer and modeling the behavior themselves is another way for teachers to demonstrate competence to their students.

Financial Literacy: Definition and Benefits

Financial literacy represents the culmination of financial access, education, and understanding, as well as an individual's interest, attitude, and practice that directly benefits the

financial efficiency and effectiveness of that individual, and indirectly and ultimately benefits that of society at large (Coussens, 2005). Being financially literate can be defined as (a) being knowledgeable, educated, and informed on the issues of managing money and assets, banking, investments, credit, insurance, and taxes; (b) understanding the basic concepts underlying the management of money and assets; and (c) using that knowledge and understanding to plan and implement financial decisions (Hogarth, 2002). Financial literacy denotes one's understanding and knowledge of financial concepts and is crucial to effective consumer financial decision making (Fox, Bartholomae, & Lee, 2005). O'Neill (2002) described the following as the significant components for regular review for families to assure financial wellness: "Financial Goals, Net Worth Calculation, Cash Flow Analysis, Spending Plan, Financial Ratios, Credit Card Analysis, Income Tax Analysis, Insurance Analysis, Retirement Analysis, Investment Performance Analysis, Asset Allocation Analysis and Rebalancing, and Estate Planning Analysis" (pp. 54-58).

Hogarth (2002) found that financial literacy is important because well-informed, well-educated consumers should make better decisions for their families; increase their economic security and well-being; contribute to vital, thriving communities; and foster community economic development. Additionally, aging baby boomers will be more responsible for their own retirement income security, youth are coming to financial independence with limited role models and experiences, an increasing number of immigrants will need to learn to manage their finances in the U.S. marketplace, and the financial marketplace of the 21st century has become more complex. All of these factors contribute to the need for appropriate financial literacy education.

Jacob, Hudson, and Bush (2000) stated in their report to the Woodstock Institute that "financial knowledge has become not just a convenience but an essential survival tool" (p. 7). Financial product innovation and marketing, technological advances, consolidation and restructuring of the financial services industry, changes in retirement and pension plans, and shifts in consumer attitudes are several trends that are significantly influencing financial attitudes and decisions (Coussens, 2004).

Research gives evidence that modern consumer education is a lifelong process essential to the economic well-being of society (Knapp, 1991). Knapp surveyed consumer professionals to gather their views on the benefits of consumer education. It was found that consumer education offers the following benefits to individuals: (a) encourages critical thinking, (b) imparts life skills that contribute to success in everyday living, (c) promotes self-confidence and independence, (d) fosters broadly accepted values, and (e) improves the quality of life. In addition, consumer education encourages citizen awareness and promotes a stable society. Customer satisfaction, more realistic expectations of products and services, and increased sales are some of the benefits of consumer education for businesses (Knapp). Family and consumer sciences teachers can make the connection between society and the family in application of these competencies to help their students make informed consumer decisions that improve the quality of life for themselves and for their families.

McGregor (2000) summarized from several reports additional benefits of consumer education that included: (a) promotes interdependence from a global perspective; (b) fosters a respect for the value clarification process; (c) reduces apathy; (d) reduces social alienation produced by exploitation in the marketplace and replaces it with empowered, enabled citizens; (e) prompts the consumer to critically examine the role of the national economy in relation to a stable society; (f) leads to more satisfactory purchases and better relationships with the business

sector; (g) generates the ability to handle and challenge commercial persuasion and advertising; (h) helps people live within their income and plan for the future by teaching them to make good decisions and to problem solve; (i) exposes people to their rights and responsibilities as a consumer relative to business and government; (j) leads to discriminating and informed citizens; (k) helps people appreciate the relationship between work and money; (l) enables people to raise standards across professions and industry sectors; and (m) prepares people to engage in self-management, growth, and enlightenment as global citizens (p. 15).

In addition to the list of benefits of consumer education stated above from Knapp (1991) and McGregor (2000), Coussens (2005) indicated that improving household financial behavior also benefits the consumer in addition to the larger financial system. The most significant benefits for consumers are: (a) reduced likelihood of falling victim to predatory lending or credit-related fraud, (b) a better understanding and awareness of options in the marketplace for financial services, (c) a decrease in credit risk and/or unintended investment risk, (d) lower vulnerability to economic shocks such as unexpected job loss, and (e) improved planning and balance between current expenditures and future financial needs. Financial institutions and the financial system benefit through improved efficiency of market operations and competitive forces; decreases in bankruptcies, defaults, and their effects; and increases in investment for future economic development (Coussens). Specific consumer groups should also be considered. The following will share research related to teenagers, which is particularly important for family and consumer sciences teachers who teach this age group.

Teenagers and Financial Literacy

According to Laura Levine, executive director of the Jump$tart Coalition, "Our best chance of improving the money management skills of today's youth is through financial education in school, after school, and at home" ("Financial Literacy Day," 2006, pp. 1-2). Texas Democratic Congressman Ruben Hinojosa stated, "Personal financial literacy is essential to ensure that individuals are prepared to manage money, credit, and debt, and become responsible workers, heads of households, investors, entrepreneurs, business leaders, and citizens" ("Financial Literacy Day," pp. 1-2).

Breitbard (2003) found spending and saving habits form early and that the best way to tackle personal financial problems seems to be with education, beginning as soon as kindergarten and lasting through twelfth grade. Although parents should be helped in teaching their children about financial management, the best starting point is to teach young people in school classrooms because most parents themselves are poorly informed about personal finance issues and frequently make bad role models. Even financially savvy parents often find it difficult to talk to their children about money and money management. According to Stanger (1997), individuals who learn financial management at a younger age tend to do better financially than those who do not have financial education.

Teenage Spending

According to a survey conducted by the Jump$tart Coalition for Personal Financial Literacy in early 2006, high school seniors on average answered 52.4% of a 30-question financial survey correctly (Hagenbaugh, 2006). This figure was up from 52.3% when the survey was conducted in 2004, but down from 57% in 1997. Students taking the survey in 2006 demonstrated an increased aptitude and ability to manage financial resources such as credit cards, insurance, retirement funds, and savings accounts at a level slightly higher than in 2004. In

contrast, only 22.7% understood concepts about interest on savings accounts and only 40.3% understood concepts about health insurance. According to the survey, only 16.7% of the students had taken an entire course in money management or personal finance, a number that was down from a high of 20.1% in 2004. The mean financial literacy score for students who had taken a money management or personal finance course was 51.6%, slightly below the average for all students (Hagenbaugh; SmartPros, Ltd., 2006). Some previous Jump$tart surveys had shown this figure to be slightly above the national average and some slightly below, but it is clear that students do not appear to be learning or retaining those things that are needed for making important financial decisions in their own interest (SmartPros, Ltd.). However, the importance of youth financial literacy and effective programs are critical as the buying power of young people continues to increase. Children's spending has roughly doubled every ten years for the past three decades and tripled in the 1990s. Teenagers in the United States between the ages of 12 and 19 spent more than $169 billion in 2004, a 40% increase from $122 billion spent in 1999 (Holdsworth, 2005).

Best Practices: Implications of the Standard

As teen spending increases in a culture without strong financial literacy skills, it is especially important for family and consumer sciences teachers to be prepared to teach concepts relative to Standard 2 to assist youth in becoming more financially literate. Some of the best practices from recent research are shared here along with an overview of several specific online resources to assist teachers in the classroom.

Strategies for Teaching Consumer Economics and Family Resource Management

Fabian (2004) applied a practical reasoning approach to family and consumer sciences curriculum in Wisconsin to address "family-focused content for consumer economics" (p. 70). A curriculum guide was developed based on the use of these four questions:

1. What is the current state of affairs for families regarding consumer economics?
2. What are the reciprocal relationships in the economic system?
3. What consequences does consumer action have on the economic system?
4. How does financial literacy empower consumer action? (Fabian, p. 70)

Hira and Mugenda (1999) found a connection "between self-worth and financial satisfaction" and encouraged educators to consider this relationship when teaching about financial matters (p. 82). In a study that examined Hira and Mugenda's findings using a different sample, Grable and Joo (2001) also found it important that educators consider the importance of self-worth when teaching financial concepts.

Varcoe et al. (2001) asked a diverse group of teens from four Southern California counties to identify what they know and want to know about financial management. The survey group was comprised of probationary or juvenile hall teens, teens participating in migrant education programs, teens participating in pregnant and parenting programs, teens in public high schools, and teens participating in youth groups. Based on the findings of this study, the following recommendations were given for teaching financial management education:

1. Focus financial management education lessons on what the teens want to learn.
2. Create teachable moments.
3. Incorporate other information that "they need to know, but may not be interested in learning" into lessons in such a way as to show relevance to the topics about which they have shown greater interest.

4. Survey the audience to determine the most appealing or appropriate method for delivery of educational material---be aware that teens in differing circumstances have different interests. (Varcoe et al., p. 33)

An example of a program for improving financial literacy was reported by Bowen and Jones (2006). It was called the Commonwealth Credit Program (CCP), which teaches teens about credit card use and provides sessions on credit card terms, ways to reduce cost, credit card reports, and the impact of credit card use on the students' future, among other topics (p. 35). Results from this study determined that even a short term intervention within an educational setting results in improving the students' understanding of the importance of improving their financial literacy and aids in changing their behavior.

O'Neill, Bristow, and Brennan (1999) found that family and consumer sciences educators can play a key role in helping learners process through stages of behavioral change to take actions that improve their financial well being by:

1. Starting with "the basics."
2. Building on the positives.
3. Starting a campaign.
4. Using "hooks" to reach learners.
5. Taking a multi-pronged approach.
6. Helping learners assess readiness for change.
7. Helping learners assess their progress.
8. Focusing on learner interests.
9. Monitoring financial changes over time. (pp. 46-48)

Hellman-Tuitert (1999) suggested a socially-responsible perspective for teaching consumer education as developed by Consumers International, a federation of consumer organizations dedicated to the protection and promotion of consumer interests world-wide, through research, information, and educational activities. This socially-responsible perspective includes:

1. Critical awareness**:** Consumers need to learn how to distinguish needs from wants; and how to ask informed questions about price, availability, and quality of goods and services.
2. Action and involvement**:** Once they have acquired knowledge and awareness, consumers can confidently act to make sure their voices are heard.
3. Social responsibility**:** Consumers should act with concern and sensitivity, aware of the impact of their actions on other citizens, particularly on disadvantaged groups.
4. Ecological responsibility**:** Consumers should be aware of the impact of their decisions on the physical environment and aware of possible conflicts between their desire to own things and the destruction of this environment.
5. Solidarity**:** The most effective consumer action is through the formation of citizens' groups. Together such groups can acquire the strength and influence to make sure that adequate attention is given to the consumer interest. (pp. 15-16)

Norquist (2002) described an 8th grade consumer education course that was supported by the school district and parents and after being implemented for a few years became a required course. The objectives for the course included problem solving, goal setting, decision making, and consumer responsibility; team activities using resource management skills; and the impact of consumer decisions on family, business, and the larger community. A significant contribution to

the success of the course was the access to community resources and the relevance of the materials and learning experiences to students' lives.

The following suggestions may be helpful in becoming a more effective consumer education teacher (Hellman-Tuitert, 1999):

1. Be realistic and practical.
2. Cover a wide range of consumer behavior.
3. Be attuned to youth.
4. Be positive about private business.
5. Help students to develop values (p. 57).

Duguay (2002), Executive Director of Jump$tart Coalition for Person Financial Literacy, described a goal for the Coalition for 2007 to have all students ready after graduating from high school to be financially prepared with "skills and concepts falling within four core areas: income; money management; saving and investment; and spending" (p. 37).

The No Child Left Behind Act has emphasized the importance of math and other core areas in the classroom. Math is easily integrated in resource management and consumer economics subject matter such as budgeting, financing loans, and checkbook balancing, and the related process skills of problem solving, thinking, and communication are helpful in reaching the expectation to leave no child behind (Card, 2004). Newell (2004) also emphasized how family and consumer sciences helps students integrate academics through "real-life experiences that are relevant to the student" (p. 14). Franklin (2004), who teaches life management, described her financial literacy unit as one that "boosts math, language arts, and technology skills while also teaching youth how to make wise choices with their money (pp. 22-23).

Resources for Teaching Consumer Economics and Family Resource Management

Family and consumer sciences teaching professionals have the responsibility of helping middle and high school students use resources responsibly. A key in fulfilling this responsibility is to provide educational opportunities in which students can learn about consumer economics and resource management concepts. Beginning teachers have access to a wide variety of materials and resources that can be used successfully to teach these concepts. These resources are designed for various age groups and can be used in a variety of instructional settings.

Council for Economic Education (CEE)

Web Link: http://www.councilforeconed.org/

CEE is a nationwide network that leads in promoting economic literacy with students and their teachers. CEE's mission is to help students develop the real-life skills they need to succeed: to be able to think and choose responsibly as consumers, savers, investors, citizens, members of the workforce, and effective participants in a global economy.

Family Economics and Financial Education (FEFE)

Web Link: http://fefe.arizona.edu

FEFE provides educators with no-cost curriculum materials and the skills and confidence to effectively teach family economics and finance to their students.

Institute of Consumer Financial Education (ICFE)

Web Link: http://www.financial-education-icfe.org

The ICFE/Kids sections offer money tips for young Americans, financial information and education resources, a credit education course for high school seniors and college students, education and information on the dangers of debt accumulation while young,

savings and investment information, first-time credit information, and financial planning education.

Jump$tart Coalition for Personal Financial Literacy

Web Link: http://www.jumpstart.org

Jump$tart is a national coalition of organizations dedicated to improving the financial literacy of kindergarten through college-age youth by providing advocacy, research, standards, and educational resources. Jump$tart strives to prepare youth for life-long successful financial decision-making. Working collaboratively, more resources and expertise are available to accomplish this task.

National Endowment for Financial Education (NEFE)

Web Link: http://www.nefe.org

NEFE is a non-profit 501 (c) (3) foundation dedicated to helping all Americans acquire the information and gain the skills necessary to take control of their personal finances. NEFE accomplishes its mission primarily by partnering with other concerned organizations to provide financial education to members of the public - in particular, to underserved individuals whose financial education needs are not being addressed by others. Their high school financial planning program is offered in partnership with the U.S. Department of Agriculture Cooperative State Research, Education, and Extensive Service and participating Land-Grant University Cooperative Extension Services.

Conclusion

The literature provides several successful programs, strategies, and suggestions for teaching consumer economics and family resource management content and concepts. Financial literacy, social responsibility, informed decision making, behavioral change, life skills, and ultimately financial well-being require having well-informed, well-educated consumers. Family and consumer science teachers have a unique opportunity to inform and educate youth to be those consumers. They have the opportunity to make a difference in the lives of secondary students by being prepared to assist them in becoming more financially literate and by helping them make consumer choices that will improve their lives and those of their families. FCS secondary curriculum is grounded in critical thinking and process skills, and the FCS teachers' ability to assist students in applying these skills to consumer and resource management decisions is very important. By applying the knowledge for using resources responsibly to a variety of content areas as applicable to the national standards for secondary students and the appropriate state and local program competencies, new FCS teachers will assist students in meeting their needs and those of their families and communities so that the values and goals of the individual, the family, and the society may be attained.

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Nutrition, Food, and Wellness: Rationale and Resources for Implementation in Family and Consumer Sciences Teacher Preparation Programs

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Food and nutrition has been an essential content area within family and consumer sciences education since the profession's origin. Because food is a basic human need and society's focus on health and wellness has increased, the content area's importance and role in the family and consumer sciences (FCS) classroom could not be stronger. This article provides a research-based rationale to support the nutrition, food, and wellness expectations in the National Standards for Teachers of Family and Consumer Sciences *(National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004). A literature review highlights the relevance of the* Standard *and its relationship to secondary FCS programs. Suggestions for implementing and assessing the standard are provided along with an annotated listing of print and online resources that could be useful to preservice and beginning FCS teachers.*

Historically, nutrition, food, and wellness content have been identified as an integral component of the secondary family and consumer sciences curriculum (Cheek, Hastings, & Lokken, 2001; Karza, 1990; Smith, 1992; Stanek, Reischol, & Grandjean, 1991; Stroh, 1988). Wendland and Torrie (1993) reported that food and nutrition was perceived by high school students, parents, and guidance counselors as the most valuable and the most efficient content area. In a list of most popular family and consumer sciences (FCS) courses taught nationwide, those relating to nutrition, food, and wellness included: (a) cultural foods; (b) food science,; (c) foods, nutrition and wellness; (d) sports nutrition; (e) food service; (f) professional baking; and (g) professional foods (Werhan & Way, 2006). Upon review of literature from 1985 through 2004, Browne, Myers, Gentzler, and Hausafus (2006) reported that FCS-based food, nutrition, and wellness programs are effective in increasing students' knowledge and improving students' attitudes toward nutrition. Hence, food, nutrition, and wellness content remains a viable component of the FCS secondary curriculum. Given that the *National Standards for Family and Consumer Sciences* (National Association of State Administrators for Family and Consumer Sciences [NASAFACS)], 2008) includes content related to nutrition and wellness, food production and services, food science, and dietetics, it is appropriate that FCS teachers are knowledgeable of and prepared to teach the content. Thus, food, nutrition, and wellness subject matter merits inclusion in the educational preparation and training of FCS teachers.

Teaching Food, Nutrition, and Wellness Content

With the emphasis on teacher preparation, it is important to note the relationship between a teacher's content knowledge, the educational training received, and their ability to teach in the

subject matter area. Although not specific to nutrition, Darling-Hammond, Chung, and Frelow (2002) and Wilson, Floden, and Ferrini-Mundy (2002) reported that teachers spent more instructional time on content in which they had received or possessed the most adequate and appropriate training. More specifically, Kubik, Lytle, Hannan, Story, and Perry (2002) acknowledged that adequate teacher training increases teachers' awareness of current nutrition issues and supports healthy lifestyles as well as enhances teaching efficacy. Teachers who spend more time teaching nutrition often have had increased training regarding nutrition information (Birch & Fisher, 1998; Cantrell, Young, & Moore, 2003). Teachers who have sufficient training in nutrition education will deliver instruction that is more comprehensible and more readily applied (Contento, Balch, & Bronner, 1995). Furthermore, training in nutrition is likely to improve not only the teacher's interest in nutrition, but their attitudes toward the subject matter and the time spent on nutrition education (Contento, Manning, & Shannon, 1992).

Celebuski, Farris, and Carpenter (1996) reported that family and consumer sciences (FCS) teachers provided 92% of nutrition education in public schools. Additional research studies (Karza, 1990; Stanek et al., 1991; Stuhldreher, Zuchowski, & Liddel, 1996) have documented that FCS teachers possess the background necessary to teach nutrition content. Thus, FCS teachers can play a vital role in nutrition education in secondary schools.

Hence, it is imperative that family and consumer sciences teacher preparation programs continue to ensure that beginning FCS teachers have the appropriate knowledge, skills, and resources to teach in the content area. This article provides a research-based rationale; implementation and assessment strategies; and resources to support the nutrition, food, and wellness standard and related expectations in the recently adopted *National Standards for Teachers of Family and Consumer Sciences* (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004). Nutrition, food, and wellness content is included in Standard 4 which states, "Promote nutrition, food, and wellness practices that enhance individual and family well being across the lifespan and address related concerns in a global society" (NATEFACS, 2004). If FCS teacher preparation programs address this standard, then teacher candidates will be prepared to meet the following expectations (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2005):

1. Evaluate nutrition and wellness choices and practices to enhance individual and family well being across the lifespan, using reliable guidelines and sources of information;
2. Synthesize principles of food acquisition, handling, preparation, and service to meet long term nutrition needs and preferences of individuals, families, and communities;
3. Evaluate impacts of science, technology, and technological advances on wellness, nutrition, foods, and related issues; and
4. Assess governmental, economic, geographic, and technological influences on nutrition and foods practices, food availability, and related issues in a global society.

Rationale for Standard

The United States Department of Health and Human Services (2000, 2005) reported that relationships among nutrition and health, wellness, and disease prevention are well established. According to the National Center for Health Statistics (2002), the three leading cases of illness and death in the United States – heart disease, cancer, and strokes – and six of the top ten, are all related to dietary factors. Governmental agencies, such as the Centers for Disease Control and Prevention (2006, 2007), the Food and Drug Administration (2004), the United States

Department of Health and Human Services (2000, 2005, 2006), the United States Department of Agriculture (2005), and the American Dietetic Association (2006b, 2006c, 2007b), have issued nutrition guidelines and tools to help consumers maximize health and minimize disease risk. Research shows while Americans, as a whole, have made positive dietary changes in recent years, eating habits remain less than ideal (American Dietetics Association, 2002; International Food Information Council, 2006a). The typical American diet is higher in fat, saturated fat, cholesterol, simple sugars and sodium, and lower in fruits and vegetables, whole grains, and low-fat dairy products than is recommended. Poor dietary practices are prevalent among American children and adolescents (Larson, Neumark-Sztainer, Hannan, & Story, 2007; Neumark-Sztainer, Story, Hannan, & Croll, 2002; Sanchez et al., 2007). Obesity is at an all-time high, and obesity-related disorders, including type 2 diabetes and metabolic syndrome, are no longer rare occurrences in American youth (Centers for Disease Control and Prevention, 2006; Cook, Weitzman, Auinger, Nguyen, & Dietz, 2003; Cruz et al., 2004; Koopman, Mainous, Diaz, & Geesey, 2005; Ogden, Flegal, Carroll, & Johnson, 2002; Weiss et al., 2004). Eating disorders, and the more common "disordered" or abnormal eating patterns, are most often diagnosed in teens (Grunbaum et al., 2004; Neumark-Sztainer, Story, Hannan, Perry, & Irving, 2002). Among lower-income families, food insecurity resulting in under-nutrition is not uncommon (American Dietetics Association, 2006a).

The nutrition content standard indicates that in order to effectively promote nutrition, food, and wellness practices, family and consumer sciences teacher candidates should be able to (a) provide nutrition education using reliable resources; (b) teach the skills necessary to purchase, prepare, and serve healthy food; (c) evaluate current nutrition and food related issues; and (d) assess various influences on food and nutrition in today's global market (NASAFACS, 1998).

Nutrition knowledge does not always translate into behavior change (American Dietetics Association, 2007b; Epstein, Valoski, Wing, & McCurley, 1994; Sahota et al., 2001). Therefore, quality nutrition education programs should focus on changing attitudes, motivating individuals, and providing the skills necessary to adopt healthy behaviors (American Dietetics Association, 2007b; Contento, Balch, Bronner, Paige, et al., 1995; Gortmaker et al., 1999). According to the American Dietetics Association (2006b), nutrition habits track over time; those individuals who establish positive behaviors early in life are more likely to continue those behaviors for a lifetime. Family and consumer sciences educators who teach junior high and high school age students can provide relevant nutrition information using age-appropriate, creative, and stimulating strategies; instill positive attitudes; and provide the skills needed to establish healthy nutritional habits (American Association of Family and Consumer Sciences, 2004).

Nutrition information is readily available to consumers (American Dietetics Association, 2006b). Television, magazines, and the Internet provide an almost constant supply of news articles and features about nutrition-related topics. The supply of advertisements, particularly those targeting children and youth, appears to be endless. Misinformation about nutrition abounds, and consumers are often caught up in the quick fix mentality. Quick fixes to lose weight, increase muscle mass, lower cholesterol, and so forth, not only do not produce long-term results, but also can exacerbate existing problems. Even among reliable resources, information can be confusing due to conflicting results of research studies. This misinformation and contradictory information can be especially overwhelming to adolescents. By training family and consumer sciences teachers to recognize and use reliable sources of nutrition information and to

evaluate research, they can in turn help adolescents to learn to evaluate nutrition information sources and to discern fact from fiction.

Larson, Story, Eisenberg, and Neumark-Sztainer (2006) surveyed middle and secondary students in Minnesota and reported that 49.8% shopped for groceries and 68.6% assisted in preparing dinner. While many middle and secondary students are interested in nutrition and health, research shows that fewer youth are skilled in food budgeting, purchasing, handling, preparation, and service (Achterberg & McCullum, 1997; Antosh, Soliah, & Walter, 2006). Furthermore, the United States Bureau of Labor Statistics (2000) indicated that restaurants and eating establishments were the most common worksite for youth ages 15 through 17. Youth who prepare food in or outside of the home may put themselves or others at risk for foodborne illness. Preparing individuals to shop wisely to extend the value of their food budget, to store foods to extend their shelf life, and to prepare foods using safe food handling practices to minimize waste and prevent foodborne illnesses are skills that can be used for a lifetime.

Research in the area of food technology and food safety has increased exponentially in the last five years and greater increases can be expected in the future (Food and Drug Administration, 2007). Students of today have more options in the marketplace than ever before. More organic and natural foods are available, genetically engineered foods are common, and newer packaging methods increase convenience, while also extending shelf life (Aase, 2007; Stein, 2007). Consumers recognize the value of the benefits of food technology. However, at the same time, rarely a month goes by when some food is not implicated in a potential or actual outbreak of foodborne illness, and issues such as food additives, hormones, and pesticides are debated in the media (Food and Drug Administration). If family and consumer sciences teacher candidates possess a basic understanding of these issues, they can help others make informed decisions about their own food supply.

Because of the global economy, high school students need to recognize the many factors that influence the availability of foods. Conservation of natural resources, minimization of waste, and economic sustainability of the food supply are issues being addressed by Americans today and in the future (American Dietetics Association, 2007a). It is important for high school students to understand that actions related to food production, manufacturing, and service have global consequences.

The American Dietetic Association (2003) recommends that schools provide learning experiences that will enable and empower school age children and adolescents to develop lifelong eating habits to promote health and well-being. Public schools have been charged with developing and implementing wellness policies (United States Department of Agriculture, 2007). These policies are required by the *Child Nutrition and WIC Reauthorization Act of 2004* (U.S. Congress, 2004). The legislation requires that staff members who provide nutrition education must have adequate training. Because not only is nutrition education one of the major goals, family and consumer sciences (FCS) teachers prepared to teach nutrition education are uniquely suited to provide leadership in planning, developing, and implementing these wellness policies. By ensuring that beginning FCS teachers possess the expertise and competency to effectively teach nutrition and wellness content in secondary FCS classrooms, teacher education programs are preparing FCS teachers to play a critical role in school wellness initiatives. With the recently adopted standard and expectations for nutritional content, FCS beginning teachers will have the necessary educational background and preparation to be a valuable team player in planning, implementing, and maintaining a successful school wellness program.

Implementing and Assessing the Standard

Strategies for implementing and assessing Standard 4 in a family and consumer sciences teacher preparation program could involve the integration of professional coursework in food, nutrition, and wellness, which includes content related to food production and services; food science, dietetics, and nutrition; and nutrition and wellness, since these are identified in the *National Standards for Family and Consumer Sciences* (NASAFACS, 1998) that guide secondary family and consumer sciences programs. Yahnke and Wissman (2000) suggested general education coursework in the biological, psychological, and physical sciences and specialized courses in wellness and nutritional science. Additional strategies might involve pedagogical courses in curriculum development and educational methods to prepare teachers to offer adequate nutrition education and authentic learning experiences, such as problem based learning, service learning, and scenario based assessments.

Lolkus (2004) proposed that nutrition courses that provide opportunities to learn foundational content knowledge and to integrate and apply the content to real-life situations will give future teachers the skills necessary for teaching nutrition effectively. Individuals who understand and care about the importance of nutrition are likely to put forth more time and energy into teaching the content than those individuals who do not find the content relevant and valuable. Furthermore, "students who acquire skills to further their own learning are better able to continue building their own nutrition knowledge" (Lolkus, p. 335). Examples of strategies for implementation and assessment of the standard are discussed for each expectation.

Expectation #1: Nutrition and Wellness Choices and Practices

Course content and related experiences ensure the beginning teachers' competence to understand the role of nutrients and their relationship to wellness; to evaluate reliable, accurate sources of nutrition information; and to emphasize the use of the dietary guidelines and recommendations for dietary intake (Yahnke & Wissman, 2000). Although knowledge of nutritional needs throughout the life cycle is necessary for family and consumer sciences teacher candidates, understanding the eating habits and food choices of adolescents is especially important for these future teachers since they will be teaching nutrition content to an adolescent population. An examination of adolescents' food habits indicated a greater consumption of soft drinks, grains, fruit drinks, chips, and candy than whole milk, vegetables, and beef and pork (Enns, Mickle, & Goldman, 2003). In the same national study, "less than one-half of the adolescents consumed the recommended number of servings [from the Food Guide Pyramid]" (p. 15), and the intake of added sugars and fat far exceeded the recommendation. Changing the eating habits of adolescents may be a focus of nutrition education in secondary classrooms. Thus, coursework in educational methods for teacher candidates can emphasize the instructional methods and strategies that promote changes in nutrition knowledge, attitudes, and behaviors.

Rafiroiu and Evans (2005) reported that videos, workshops, and group discussions were the preferred approaches for learning about nutrition, while cooperative learning and demonstrations were listed as the most effective methods of learning nutrition. These teaching strategies and approaches can be utilized in teacher education programs to aid retention of nutrition-related content and to model the use of the strategies in teaching nutrition.

The use of computerized diet assessment programs have been used frequently in nutrition education (Probst & Tapsell, 2005). Family and consumer sciences teacher candidates can assess their own diets to learn how to use computer-assisted diet assessment programs or self-assessment programs, such as those found on the Internet. Probst and Tapsell reviewed 29

computerized diet assessment programs and highlighted the features of each as a useful tool in nutrition education. Although they made no recommendation for the use of specific software programs, Probst and Tapsell encouraged educators to consider the age, ethnicity, and literacy level of the learners before choosing a diet assessment program. If teacher candidates were given the opportunity to use the diet assessment software, they could evaluate their own diets with regard to caloric or nutrient intake or to recommended dietary intake. The assessment data collected could be helpful in making more informed choices and decisions regarding diet. In turn, the teacher candidates would be able to use that knowledge and skill to help middle and secondary students to assess their diets as well.

Expectation #2: Food Acquisition, Handling, Preparation, and Service

Knowledge, skills, and behaviors related to the study of nutrition, food science, and food preparation can be developed through course content and related experiences. Beginning teacher competencies include the ability to "select, store, prepare, and serve nutritious and aesthetically pleasing food" and to "promote safe food handling, appraisal of safety and sanitation practices, . . . [and the] examination of food borne illnesses" (Yahnke & Wissman, 2000, p. 165).

Several studies (Barclay et al., 2003; Ellis & Henroid, 2005) stressed the importance of incorporating food safety into schools at early stages and then continuing through high school. The family and consumer sciences classroom seems to be an appropriate context since content already focuses on health, nutrition, and food preparation. Family and consumer sciences teachers participating in the Ellis and Henroid study agreed that food safety was important and many of the teachers were integrating food safety concepts into several classes.

Family and consumer sciences teacher candidates could get involved and plan activities to promote National Food Safety Education Month, held annually in September (National Restaurant Association Educational Foundation, 2008). In addition, hands-on techniques, such as food labs, demonstrations, and problem-based learning, can be implemented in the university classroom to promote critical and creative thinking and problem solving. Whether the purpose is observational, experimental, or productive in nature, food labs offer an opportunity for experiential learning that is process-oriented and stimulates problem solving (Chamberlain & Cummings, 2003). Encouraging teacher candidates to develop and present food demonstrations allows them to think logically and sequentially about a food-related process and to exhibit proper food handling and preparation techniques.

Duffrin (2003) observed that problem-based learning used in an undergraduate foods classroom "enhanced the classroom environment and acquisition of knowledge while developing students' communication, critical-thinking, problem-solving, and teambuilding skills" (p. 5). Four sample problems were provided as examples that can be used in the classroom. Incorporating the problem-based approach in teacher education programs models the instructional strategy for teacher candidates and prepares them to use the strategy in the family and consumer sciences classroom.

Family and consumer sciences (FCS) teacher preparation programs could give teacher candidates an opportunity to participate in food safety certification programs, like the ServSafe program (National Restaurant Association Educational Foundation, 2009b). ServSafe, the food service industry standard for food safety training and certification, emphasizes factors associated with foodborne illnesses, good personal hygiene, critical risk factors in food service operations, and sanitary facilities. Upon successful completion of the program and the certifying assessment, FCS teacher candidates would hold the industry-based certification and would be eligible to

integrate the curriculum and offer the certification through their own secondary FCS program. This could serve as an assessment tool for evaluating food safety knowledge.

Foodservice is one of the nation's fastest-growing industries, and job openings are expected to be plentiful until 2016 (United States Bureau of Labor Statistics, n.d.). The trend could be beneficial for food production and food service curricula like those taught within the family and consumer sciences (FCS) classroom. Beginning FCS teachers can explore professional development opportunities to seek specialized training in culinary arts and/or food service programs, such as the ProStart program sponsored by the National Restaurant Association Educational Foundation (2009a). The ProStart program involves two years of training and education, and prepares secondary students for careers in the foodservice and restaurant industry. These programs are increasing in number as states encourage industry-based certifications in career and technical education programs to meet the needs for program relevancy, accountability, consistency, and credentialing (Wilcox, 2006). Building an awareness of these certifications into teacher education programs could ultimately result in training more FCS secondary students for careers in the growing foodservice industry.

Expectation #3: Impact of Science and Technology

Because of the scientific nature of the study of food and nutrition, an adequate background in the sciences may prove helpful for beginning family and consumer sciences teachers. Nutrition and wellness content provides the perfect context for integrating academic content, such as mathematics and science, into the family and consumer sciences curriculum. Food, nutrition, and health-related concepts incorporate principles from mathematics, microbiology, chemistry, and biology. With the *No Child Left Behind* federal legislation (United States Congress, 2001), middle and secondary schools have increased accountability regarding the core content areas of math and science. The integration of academic content into the FCS classroom validates how the FCS curriculum aligns with legislative requirements.

The Food, Math, and Science Teaching Enhancement Resource (FoodMASTER) Initiative is one example of a collaborative partnership with kindergarten through 12th grade programs and university faculty and students (Duffrin, Cuson, & Phillips, 2005). The program provides positive outcomes in using food as a tool for teaching math and science content. To reinforce nutrition content, family and consumer sciences teacher candidates could partner with secondary classes to implement a similar hands-on, inquiry based program or activities.

Biotechnology and genetically modified foods are two ways in which the development and production of food is changing. According to the International Food Information Council (2006b), genomic research has "tremendous potential to improve the quality of human nutrition" (p. 5). The term nutrigenomics has been coined to define the application of genomic research to nutritional science. In a recent survey, the majority of consumers indicated a favorable attitude toward the use of genetic information to offer nutrition-related recommendations. Yet, consumers may not be prepared for those changes and their consequences. Brady and Brady (2003) reported education as the most important factor influencing consumers' knowledge of and attitude toward genetically modified foods. If the scientific and technological advances could be infused into their undergraduate training, family and consumer sciences beginning teachers would have a greater awareness of these new advances in food development, preparation, and production that could impact future trends. Furthermore, discussions among teacher candidates regarding the ethical practices would stimulate thinking about the appropriate uses of the new technology.

Expectation #4: Influences on Food Practices and Availability

According to the American Dietetic Association (2003), all individuals have the fundamental right to nutritious, safe, and culturally appropriate food. Food insecurity is directly related to the availability of food. Holben (2005) asserted that nutrition educators have the responsibility to "understand and be aware of the prevalence and consequences of food insecurity and to understand the concept and importance of community food security" (p. 343). The negative effects of food insecurity impacts the health of individuals across the lifespan. Holben surveyed accredited nutrition and dietetic programs to determine how food security issues were addressed in nutrition coursework. From the survey, approximately 30 to 50 examples of classroom activities were suggested by university faculty to incorporate the content in nutrition-related coursework, from basic nutrition to life cycle and community nutrition to food production. The examples would help teacher candidates learn about food security through their experiences. In addition, Chabot and Holben (2003) recommended the implementation of service learning experiences in the nutrition classroom. Not only do teacher candidates learn about the content, they are able to apply their knowledge in a real-life context and then reflect upon the experience.

Additional General Assessment Strategies

Standardized assessments, such as those used for state teacher certification, can also be used to evaluate the nutritional knowledge, attitudes, and behaviors of teacher candidates. Nutrition topics are included in the Praxis II Family and Consumer Sciences Specialty Exam (Educational Testing Service, 2005) and the certification exam offered by the American Association of Family and Consumer Sciences (2004). A review of those standardized assessments would determine their correlation and alignment to the *National Standards for Teachers of Family and Consumer Sciences* (NATEFACS, 2004).

Byrd-Bredbenner et al., (2007) developed and evaluated a food safety knowledge questionnaire for use with undergraduate students. The instrument could be useful in determining a baseline assessment of one's knowledge of food safety and sanitation. Further, Brenowitz and Tuttle (2003) developed and validated the Nutrition Teaching Self-Efficacy Scale which determines teacher's self-efficacy in relation to whether a teacher feels confident in delivering nutrition content and whether it will lead to desired outcomes. Higher self-efficacy resulted in more time spent teaching the concept. Although the scale was validated with elementary school teachers, the authors encouraged its modification for middle and secondary school teachers. Sample (2006) adapted the scale and used it to assess middle school teachers' knowledge and ability to teach nutrition. The study concluded that family and consumer sciences teachers were more confident regarding their nutrition knowledge and spent more time teaching nutrition than health and physical education teachers.

Performance-based assessments are designed to demonstrate that teacher candidates "can actually use the knowledge they have about teaching and their content specialty" (Miller, 1996, p. 54). Over the years, teacher education programs have used portfolios as a tool for performance based assessment (Anderson & DeMeulle, 1998; Pecheone, Pigg, Chung, & Souviney, 2005; Stone, 1998). Teacher candidates can use portfolios to document knowledge and skills that they have learned related to Standard 4: Food, Nutrition, and Wellness. In addition, the portfolio serves as a record of the experiences in which they have participated that demonstrate mastery of the Standard.

Conclusion

A planned sequential curriculum that emphasizes nutrition fundamentals is necessary to enable middle and secondary school students to change nutritional behaviors and improve overall health. Family and consumer sciences teachers can provide the planned curriculum, with appropriate individual learning experiences. However, family and consumer sciences teachers need appropriate and adequate coursework and related experiences to prepare them to teach nutrition related content. By addressing the nutrition content standard recommended by the *National Standards for Teachers of Family and Consumer Sciences* (NATEFACS, 2004), teacher education programs can ensure that their graduates make a significant impact on the nutritional health of future generations.

Resources

Textbooks, the Internet, journals, magazines, and materials from public agencies and nutrition-related organizations are recommended sources of instructional resources (Cullen, Ley, & Burge, 2000; Ellis & Henroid, 2005; Yahnke & Wissman, 2000). More specifically, the texts utilized in undergraduate food and nutrition courses are great resources for beginning family and consumer sciences teachers. In addition, the Internet provides easy access to information and resources, and professional journals serve as the main source of new research, ideas, and knowledge. The resources related to the Nutrition, Food, and Wellness Standard include, but are not limited to, those annotated below.

Books

Chamberlain, V. M., & Cummings, M. N. (2003). *Creative instructional methods for family and consumer sciences, nutrition and wellness.* New York: Glencoe-McGraw Hill.
This textbook developed by family and consumer sciences educators can be utilized in an educational methods course. The content focuses on instructional methods for family and consumer sciences topics, generally, and food and nutrition topics, specifically.

Family, Career and Community Leaders of America (FCCLA). (n.d.) *Student body.* Available at http://www.fcclainc.org/content/student-body
This national program developed by FCCLA is a peer-education program that focuses on nutrition and encourages adolescents to be physically fit. The manual provides information on incorporating the program into the family and consumer sciences classroom and FCCLA chapter.

Thompson, J., & Manore, M. (2007). *Nutrition for life*. San Francisco: Pearson Education.
This text focuses on basic nutritional science, such as nutrient function and chemical classification. Case studies, nutrition label activities, and a special Healthwatch segment are features of the newest edition to the text.

Thompson, J., & Manore, M. (2006). *Nutrition: An applied approach.* San Francisco: Pearson Education.
This basic nutrition textbook offers introductory and basic nutritional principles for non-majors. Through special book features, common misconceptions about nutrition are

addressed, as well as an emphasis on the relationship between nutrition and individual health and daily living.

Internet Sites

AAFCS Directory of Online Resources

Web Link: http://www.aafcs.org

This index of Web sites provides links in each of the following areas related to Standard 4: food production and services, food science, and nutrition and wellness. The Web sites range from government, educational, and commercial sites with information and resources for educators and students.

International Food Information Council (IFIC) Foundation

Web Link: http://ific.org

The goal of the foundation is to communicate science-based information on food safety, nutrition, and health to consumers. The Web site provides access to print materials and resources that can be utilized by family and consumer sciences teachers to gain up-to-date information and research to prepare accurate and appropriate teaching materials.

Journals and Newsletters

Great Ideas! In Teaching Nutrition

This newsletter is published by Addison Wesley and Benjamin Cummings, divisions of Pearson Publishing, as a service to nutrition educators and is available at their Web site (http://www.aw-bc.com/greatideas). The resource is filled with innovative teaching and assessment activities that promote active learning, critical thinking, and Internet tools. The activities are developed and submitted by nutrition educators on four year university and community college campuses.

Food Insight: Current Topics in Food Safety and Nutrition

This newsletter is published throughout the year by the International Food Information Council (IFIC). It provides up-to-date information and research on topics relevant to family and consumer sciences teachers. The newsletter is free to nutrition educators and can be ordered from the IFIC Web site (http://ific.org).

Journal of Food Science Education

The peer reviewed journal published by the Institute of Food Technologists aims to improve food science education at the elementary, middle, secondary, undergraduate, and graduate levels. The journal, available online at http://www.blackwell-synergy.com/loi/jfse, provides book reviews, scholarly research articles, and classroom techniques related to food science education.

Journal of Nutrition Education and Behavior

The peer reviewed journal is published by the Society for Nutrition Education and features scholarly research articles, reviews of educational materials, and educational "gems" that provide ideas, resources, and activities for teaching nutrition.

Journal of the American Dietetic Association
The professional journal for dietetics professionals provides scholarly research articles and abstracts, as well as information for practitioners working with a variety of audiences.

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Learning Environment: An Overview

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Learning Environments, Standard 7 challenges the beginning family and consumer sciences teacher to "create and implement a safe, supportive learning environment that shows sensitivity to diverse needs, values, and characteristics of students, families, and communities" (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004). *In this article, several theoretical components of learning environments are explored as a foundation for grappling with this broad Standard. Resources that provide background material and specific ideas are listed to help beginning teachers as they work to establish quality learning environments. Also included is an annotated bibliography addressing values, character education, and emotional intelligence; safety and caring issues; and a variety of diversity topics including race and ethnicity, gender, and poverty.*

Introduction

The beginning family and consumer sciences teacher must be able to demonstrate knowledge, skills, and attitudes to enable student learning in four broad content areas: (a) career, community, and family connections; (b) consumer economics and family resources; (c) family and human development; and (d) nutrition, food, and wellness. Additionally, six professional practice standards are outlined including the theme of this article, the Learning Environment. Specifically, Standard 7 requires the beginning teacher to be able to "create and implement a safe, supportive learning environment that shows sensitivity to diverse needs, values, and characteristics of students, families, and communities" (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004).

To further delineate the Standard, the following expectations were created: (a) implement strategies that support safe and accessible environments; (b) display and promote tolerance/respect for diversity (exceptionality, race, age, ethnicity, religion, socio economic status, gender, and sexual orientation; (c) consider basic human needs, development, relationships, and family dynamics; and (d) promote a pluralistic environment, engaging students in ethical problem solving and action (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2005).

What should the beginning teacher do to create that safe, supportive environment that encourages optimal learning for all? What resources, materials, and research can support and guide the beginning teacher in the quest for knowledge to develop the skills and abilities necessary for this practical problem? This article provides suggestions and ideas for addressing issues regarding various types of diversity and values while being sensitive to characteristics of students, families, and communities.

For the purposes of this article, learning environment is defined as the place and setting where learning occurs. It includes not only the physical setting but the interpersonal and instructional characteristics which influence student performance; therefore, it is difficult to separate the learning environment from curricular issues. Safety includes not only physical safety

but emotional safety for the student—e.g., freedom of expression, assurance of confidentiality, and establishment of an atmosphere of respect.

Background and Rationale

When creating the *National Standards for Teachers of Family and Consumer Sciences*, consideration was given to previously developed standards from the National Council for Accreditation of Teacher Education (NCATE) and Interstate New Teacher Assessment and Support Consortium (INTASC). Standard One states that candidates should know and demonstrate the content knowledge, pedagogical content knowledge and skills, pedagogical and professional knowledge and skills, and professional dispositions necessary to help all students learn. A footnote clarifies that 'all students' is intended to include students with exceptionalities and those of different ethnic/racial, gender, language, and socio-economic origins (National Council for Accreditation of Teacher Education [NCATE], 2007, p.4).

The NCATE supporting statements relevant to this article include, but are not limited to, the following ones. Teacher candidates demonstrate knowledge, skills, and professional dispositions necessary to provide learning opportunities supporting students' intellectual, social, and personal development. They are able to create instructional opportunities adapted to diverse learners. They encourage students' development of critical thinking, problem solving, and performance skills. They are able to create learning environments encouraging positive social interaction, active engagement in learning, and self-motivation. Teacher candidates foster active inquiry, collaboration, and supportive interaction in the classroom. They understand language acquisition; cultural influences on learning; exceptionalities; diversity of student populations, families, and communities; and inclusion and equity in classrooms and schools (NCATE, 2007). Similarities between the NATEFACS and NCATE standards are apparent and reinforce the necessity for the beginning teacher to be able to create a positive learning environment.

Several of the INTASC principles support Standard 7 of the *National Standards for Teachers of Family and Consumer Sciences*. Principle 3 states, "The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners" (Interstate New Teacher Assessment and Support Consortium [INTASC], 1992, p. 18). A performance disposition states, "[T]he teacher creates a learning community in which individual differences are respected" (INTASC, p. 19). Principle 5 states, "The teacher uses an understanding of individual and group motivation and behaviors to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation" (INTASC, p. 22).

Correlated with the INTASC Standards and based on theoretical research and empirical studies that explored improved student learning, a framework for teaching was developed (Danielson, 2007). The framework divided the complex activity of teaching 22 components clustered into four domains:

1. Planning and Preparation
2. The Classroom Environment
3. Instruction
4. Professional Responsibilities (p.1).

The framework is valuable when examining state standards, professional association standards such as those of the National Association of Teacher Educators for Family and Consumer Sciences (NATEFACS), and other national standards such as those from the National Council for Accreditation of Teacher Education (NCATE). Domain 2 breaks the classroom environment down into five components:

1. Component 2a: Creating an Environment of Respect and Rapport
2. Component 2b: Establishing a Culture for Learning
3. Component 2c: Managing Classroom Procedures
4. Component 2d: Managing Student Behavior
5. Component 2e: Organizing Physical Space (Danielson 2007. p. 28).

This article concentrates on Components 2a, 2b, and 2d.

Additionally, several common themes relevant to Standard 7 are woven throughout the framework. These themes include equity, cultural competence, and attention to individual students, including those with special needs. A commitment to equity is apparent in Domains 2 and 3--those that deal primarily with student interactions. For example, Component 3b of Domain 3 states that classroom instruction uses questions and discussion techniques in the classroom. Consistent with the equity theme, *all* students would be invited to participate in discussions as well as respond to questions. Cultural competence is addressed in Component 1b of Domain 1 which states that the teacher demonstrates knowledge of students (Danielson 2007). For example. teachers who are aware of their students' cultures and customs can exhibit and model sensitivity when interacting with students whose cultural backgrounds may differ from many teachers' expectations of respect.

Utilizing a common framework and determining standards for what the beginning family and consumer sciences teacher should know and be able to do facilitates discussion across teacher education units and builds consensus in the profession. Although there may be varied opinions on exactly how the instructional setting should be structured, most would agree that what is expected from schools today is very different from what was expected a little over one hundred years ago. In the early 1900s, instruction often centered on recitation of lessons and having students mimic skills, e.g., the correct way to form letters when learning to write. There was little intentional application by the student of the knowledge gained. However, theories changed as evidenced by John Dewey's (1916) observation that children need to be able to integrate what they learn at school with the greater environment while also utilizing outside life experiences within the classroom. Connections must be made between the two environments. This is especially true when looking at families' cultural impact on the classroom. Dewey also supported the belief that a moral education, taught not as abstract lessons but in the context of real life events, was most effective.

Curriculum reform that advocated constructivist classrooms was supported by the belief that "each of us makes sense of our world by synthesizing new experiences into what we have previously come to understand" (Brooks & Brooks, 1993, p. 4). Based on the work of Piaget, Vygotsky, and others, classroom activities shifted from teacher-centered to learner-centered educational settings grounded in cognitive theory. Specifically, Vygotsky's dialectical constructivism theorized that knowledge is socially constructed (Woolfolk, 2001). The source of knowledge rests in the interaction between the learners and their environment. As such, the teacher and students co-construct knowledge with the teacher permitting the students to be active thinkers and questioners. Family and consumer sciences classrooms are well-suited to helping students synthesize experiences because of the discipline's emphasis on practical problem solving, e.g., using case studies or scenarios, and process-oriented curriculum utilizing activities such as the Family, Career and Community Leaders of America's (FCCLA) Power of One.

Strong quality learning environments tend to be active places where students are engaged in what they are studying and exploring. The quality of the learning environment is not merely a function of *where* the students "end up" at testing time or *how many* students "end up" there, but

instead that the students are stimulated, treated fairly, and engaged in the process (Brooks & Brooks, 1993). If students are simply encouraged to perform through memorization rather than gain understanding through exploration, little long-term knowledge is retained. Additionally, to encourage actual student learning rather than simple coverage of material, classrooms must be relatively organized, teachers need to be patient and supportive, work must be challenging, and learning tasks must be authentic (Woolfolk, 2001). Authentic tasks are those that have connections to real-life problems that students will face at some point in life. Memorizing definitions simply because they will be on a test or covering material that has already been mastered provides little motivation to learn and be engaged in learning. For example, having students interview a family member regarding family background, traditions, and customs provides a real-life context for exploring family culture and relationships as well as develops social and questioning skills.

To help students develop the ability to integrate daily classroom tasks with real-life situations, it is suggested that such tasks must be plausible and believable from the students' perspective. To avoid simply enculturating students into current practices by providing simplistic and well-defined activities, teacher educators must carefully create and compose the activities that comprise the work of the learning environment (Herrington & Herrington, 2006). Because real-life is not simple, if problems are to be deemed pragmatic and worthwhile, the activities chosen should be complex with real-world relevance.

Another characteristic of strong learning environments is that a valid context is developed for how that genuine activity will be used in life. There is a realistic rationale for why this particular task is being studied. For example, rather than simply memorizing the correct components of a business letter, a student could compose a letter thanking a prospective employer for an interview. Herrington and Herrington (2006) further propose and discuss seven additional guidelines for designing quality learning environments. Students should:

1. Have access to experts who perform real-life tasks,
2. Be exposed to multiple perspectives,
3. Participate in collaborative activities,
4. Have opportunities for meaningful reflection,
5. Participate in opportunities for articulation and justification of beliefs,
6. Be coached rather than told by the teacher what should be done, and
7. Be assessed in ways that are consistent with the tasks.

An example for a nutrition class would be to examine the ingredient labels on cereal boxes to compare the calories and nutrients of each. Groups of students could then research the merits of the ingredients and select the more nutritious cereal. The students could be required to justify their choice(s) based on specific criteria, e.g., low sugar, low calorie, high fiber, least amount of preservatives, etc. By requiring students to make informed choices and justify their reasoning, this activity could help prepare the students to grapple with real life.

Experiencing environments that are positive, nurturing, stimulating, and interactive can help enhance students' mental abilities. Research has shown that not only can the brain change positively in structure and function due to learning but also negatively (Campbell, Campbell, & Dickinson, 2004). Teachers need to establish affirmative, "smart" and safe classrooms that will offer their students opportunities for positive interaction with each other on learning tasks.

Clearly, classrooms must function as safe, supportive learning environments that show sensitivity to the needs of all students. Beginning teachers must demonstrate that they can create and implement such environments. Research has demonstrated that threats and stress can affect

students' learning because a stressful classroom results in an ineffective learning environment (Jensen, 1998). These threats can originate from the greater environments of home and community as well as from within the classroom, but generally hinder learning from occurring as students grapple with the threats. "Threats activate defense mechanisms and behaviors that are great for survival but lousy for learning" (Jensen, p. 57). Although outside environmental stressors may not be controllable, threats from within the classroom, e.g., bullying tactics of other students, should be minimized. Inappropriate actions by a teacher, such as inconsistent enforcing of classroom discipline, can also contribute to a stressful learning environment. Utilizing stress management techniques, increasing physical activities to elevate moods, and establishing classroom opening routines are all suggestions that teachers can use to help students feel less stressed within the learning environment.

Beginning family and consumer sciences teachers are charged with creating environments that show sensitivity to diversity of students, families, and communities. Diversity, including gender, lifestyle, and socioeconomic differences as well as the more commonly thought of ethnic and cultural differences, will continue to affect classrooms of the future as communities change. The proportions of United States ethnic minority populations are continuing to grow at much faster rates than the general population. Students of color may account for almost 48% of the student population by 2020 (Banks & Banks, 2005). Non-white and lower socio-economic students are becoming a larger portion of schools' populations. While such diversity can be considered challenging, it can also provide great opportunities for enriching the curriculum and learning environment. Helping students acquire knowledge and skills to be able to take personal, social, and civic action to promote harmonious living in our pluralistic nation and world could be a major goal of the beginning family and consumer sciences teacher's classroom.

Resources and Materials

To create and implement the safe, supportive learning environment that Standard 7 calls for, the beginning teacher will need the theoretical background and also resources that address values and diverse needs. The following section presents major sources that look at values as evidenced in emotional intelligence and character education programs; racial, ethnic, gender, and multiple intelligence diversity; safety in caring and non-violent classrooms; and practical problem solving within the classroom. Several of the resources and concepts are interrelated so it is difficult to examine one area without flowing into another. For example, the term "safe" can refer to emotional as well as physical well-being so violent behavior and bullying can be as relevant as stress and anger. Similarly, "supportive" can refer to teachers caring for students, students caring for each other and the greater community, and the formation of learning communities.

Institutions will have utilized a variety of educational psychology texts within their teacher education programs. These textbooks provide theoretical background information for the beginning teachers. One example, *Psychology Applied to Teaching* (Snowman & Biehler, 2003) has the following chapters that would be relevant to creating a learning environment: (a) Chapter 5, Addressing Cultural and Socioeconomic Diversity; (b) Chapter 6, Accommodating Student Variability; and (c) Chapter 11, Motivation. Another example of relevant textbook support is found in *Becoming a Teacher* (Parkay & Stanford, 2007). The following chapters could be applicable: (a) Chapter 7, Teaching Diverse Learners; (b) Chapter 8, Addressing Learners'

Individual Needs; and (c) Chapter 9, Authentic Instruction and Curricula for Creating a Community of Learners.

The *National Standards for Family and Consumer Sciences Education* (National Association of Administrators for Family and Consumer Sciences [NASAFACS], 2008) provides the framework for what the beginning family and consumer sciences teacher will be expected to do and teach in the classroom. This document advocates posing problems through real-world scenarios, using higher level questioning, and linking academic and family and consumer sciences content so it is aligned with the concepts of the constructivist classroom. The Reasoning for Action Standard provides the foundation for teachers and students to explore the complex practical problems that are a part of life (Fox, 2007).

If beginning teachers are expected to be able to pose practical problems and encouraged to ask critical thinking questions, they should be able to observe and experience the curricular philosophy during their education. Teacher educators must be willing to conduct our classes in the same manner that we expect students to be able to in the future. One professor's struggles and successes with the curricular philosophy are recounted and could be used as a reading resource for students (Fox, 1997).

To explore some of the major trends in family and consumer sciences, the beginning teacher could be referred to *Family and Consumer Sciences: A Chapter of the Curriculum Handbook* (Laster & Johnson, 2001). This comprehensive document provides a presentation of the major trends in family and consumer sciences, selected research, and a listing of curriculum resources including an annotated bibliography and notable state and local programs. It provides excellent background for the expectation statement that the beginning teacher will promote an environment that engages students in ethical problem solving and action.

It is generally accepted that the learning environment develops over time, in part due to how teachers interact with students and to the teachers' expectations for the classroom. Some educators refer to the unique nature of a teacher's learning environment as their classroom culture. Culture can have other meanings including "the customary beliefs, social forms, and material traits of a racial, religious, or social group; …and the set of shared attitudes, values, goals, and practices that characterizes an institution or organization…" (Webster.com). It is generally the way of life common to a group of people. In this article, culture is used to refer to two groups. One is the culture (or common ways) in the classroom and the other pertains to the racial and ethnically diverse populations in the classroom.

Each classroom develops its own culture when a community of learners is created. The ways in which teachers and students participate in common activities determines that classroom's culture or atmosphere. A quality atmosphere would convince students that teachers care about them and believe that they can learn, are sensitive to their differing needs and abilities, have knowledge of their subject matter, and are able to maintain effective classroom discipline. There are three important dimensions of a positive learning environment including the caring atmosphere of the classroom, the physical classroom environment, and the organization of the classroom. Teacher educators may include caring pedagogy to help form the moral foundation of responsible citizenship (Parkay & Stanford, 2007).

Values

To create safe learning environments, beginning teachers need to maintain an atmosphere that is non-violent and not harmful. A safe and caring atmosphere can foster a healthy learning environment. Character education and emotional intelligence, with emphasis on affirmative

values, responsibility, and social skills, can also strengthen healthy student relationships and a positive learning environment. Emotional intelligence is the term that represents the body of skills commonly portrayed as character (Goleman, 1995).

Character education can help create caring communities where students learn to serve others, develop strong personal ideals, and examine universal principles. Lickona (1991) suggested ways to encourage character development in the classroom. Some of his twelve strategies included acting as a caregiver and mentor, building a moral classroom community, using cooperative learning, teaching conflict resolution, fostering caring beyond the classroom, and recruiting parents and the community as partners in character education. These strategies are useful in any classroom and make a positive contribution to the learning environment.

Schools historically addressed topics such as citizenship, responsibility, and morals but recent deterioration of everyday civility has pointed toward an increased necessity to teach social and emotional competencies (Pickard & Toevs, 2006). These social and emotional learning skills can be nurtured and encouraged through the activities of the Family, Career and Community Leaders of America (FCCLA), a career-technical student organization. Several lesson plans focusing on self-awareness, self-regulation, and self-motivation, and aligned with the *National Standards for Family and Consumer Sciences*, are presented in the monograph, *Enhancing Students' Emotional Intelligence* (Pickard & Toevs).

Asset-building schools are regarded as helping to develop "whole" or complete students by not just providing them with the facts that are needed to succeed in life, but with the skills or building blocks that are needed to become valued members of communities and society. These building blocks, called developmental assets (Starkman, Scales, & Roberts, 1999), are the relationships, values, attitudes, and attributes students need for the future. The developmental assets can guide the creation of safe and healthy school and classroom learning environments in which students can achieve academically. School and community success stories demonstrate the importance of this holistic view. Although building developmental assets in young people is fostered best by entire schools and communities, individual teachers can incorporate these strategies into their own classrooms to improve the classroom learning environment.

Safety

Students have the right to feel safe in their classrooms, and teachers have the responsibility to create safe learning environments. Safety includes not only physical safety but also emotional safety. Family and consumer sciences classes provide opportunities for incorporating programs that address bullying, conflict resolution, and school and community violence. The stated purpose of the Family, Career and Community Leaders of America (FCCLA) program, STOP the Violence—Students Taking on Prevention, is to empower young persons to recognize, report, and reduce the potential for youth violence using a peer-to-peer perspective. Trained FCCLA members work within their communities to not only report violence but also take action by implementing projects to help reduce dangerous situations within their schools (Family, Career and Community Leaders of America [FCCLA], 2004; Stop the violence, 2004). Another program that would help teachers address bullying while providing a safe learning environment for students would be "Operation Respect: Don't Laugh at Me," a character development curriculum.

For an emotionally safe learning environment to be created, students need to feel safe to share what they think. Establishing ground rules that include confidentiality and respect will work towards that goal. What is said in the classroom should stay in the classroom. Also,

students do not have to agree with others' statements, but they should refrain from dismissive behaviors such as eye rolling or smirking (Social Psychology Network, 2008). Students should be free to opt out of discussions or activities that make them feel uncomfortable, providing they tell the teacher their reasons. Teachers have the responsibility to respect students' views by offering positive comments when sensitive or embarrassing feelings are shared. Even though a teacher may disagree with a student's comment or viewpoint, the teacher should not belittle the remark but turn it into a learning opportunity so that students feel safe to express their opinions.

Thus, the safe, caring learning environment includes not only the physical aspects of the classroom but protection from domination and intimidation within the learning environment. Successful teachers would expose power relationships and share power with the learners, subsequently empowering the students to confront inequalities. For example, if students are encouraged to advocate for others, they learn to take proactive stances in situations that could be harmful. Effective family and consumer sciences teachers would encourage students to respect the diverse needs and developmental levels of classmates and others (Laster & Johnson, 2001).

Diversity

The Standard calls for beginning teachers to be able to show sensitivity to diverse needs of the students. Diversity can refer to many differences in our population. Although the most obvious one is racial and ethnic diversity, gender, socioeconomic class, and types of intelligence also may be considered and explored. "Multicultural education incorporates the idea that all students—regardless of their gender and social class and their ethnic, racial, or cultural characteristics—should have an equal opportunity to learn in school" (Banks & Banks, 2005, p. 3). Family and consumer sciences teachers, due to the real-life, hands-on nature of the field, are in position to provide those opportunities for all students.

Family and consumer sciences teachers must be able to create bias-free learning environments that are welcoming to students of all cultural backgrounds (Allison, 2003). According to Allison, this can be accomplished through several strategies:

1. Analyze and gain understanding of one's personal cultural identity;
2. Learn about the cultural backgrounds of one's students;
3. Develop competence in cross-cultural communications;
4. Explore learning preferences and styles of students from varied backgrounds;
5. Implement sound, research-based strategies;
6. Utilize culturally relevant materials and aids;
7. Employ multiple modes of assessments to accommodate the diversity of learning styles;
8. Express the belief that all students can learn and achieve;
9. Actively engage parents or guardians in children's education; and
10. Encourage participation in Family, Career and Community Leaders of America (FCCLA).

Numerous suggestions for implementation of these strategies, as well as the research background that informs Allison's ideas, are presented in the article.

Rehm and Allison (2006b) found that Florida family and consumer sciences teachers, who participated in a survey, generally revealed an interest in many cultures and a desire to learn more about the cultures. "Multicultural education can be broadly defined as the use of multiple instructional strategies to empower all students with knowledge, attitudes, and skills needed to actively participate in and successfully function in a culturally diverse democratic society"

(Rehm & Allison, p. 260). The teachers were willing to adapt courses to meet diverse needs as well as employ special strategies. These strategies included cooperative learning, peer tutoring, visual aids, and alternative assignments. Greater breadth and depth of multicultural experiences in the teacher education program were advocated to insure a healthy learning environment and better prepare beginning teachers for the multicultural classrooms of the future (Rehm & Allison).

Experienced family and consumer sciences teachers in Florida offered several suggestions for teacher education programs based on their perceptions of working with culturally diverse populations (Rehm & Allison, 2006a). Often, multicultural education is not completely integrated into the teacher education program but offered separately, which hinders the seamless exploration of beliefs that would provide the beginning teacher with the confidence needed to work with culturally diverse populations. Several teachers advocated the acquisition of a second language by beginning teachers while others suggested that beginning teachers gain experience with methods for ESOL (English for Speakers of Other Languages).

Although many of the comments from teachers in the Rehm and Allison (2006a) study were directed towards teacher education programs, the teachers also offered suggestions that could be helpful to the beginning teacher. The belief that diversity could result in strong bonds within the classroom was evidenced by two statements, “celebrate differences as making life more interesting” and “celebrate ways we are alike” (Rehm & Allison). Teachers found that food preparation courses offered a vehicle for students to learn to appreciate and respect each others’ cultures. Other suggestions included using team building activities, cooperative learning teams, knowledgeable guest speakers, and alternative delivery method for lessons, all of which have the potential to contribute to a positive classroom learning environment.

Focusing on the family and consumer sciences middle school classroom, Allison and Rehm (2006) surveyed sixteen Florida teachers to explore how they met the needs of their diverse learners. Teachers adjusted ways they communicated with students, such as the types of strategies used, or words used to give instructions. Pictures and visual teaching aids were judged to be effective strategies by these teachers. Alternative forms of assessments were deemed necessary. Consistent with other research, cooperative learning and peer tutoring strategies were perceived as effective strategies. When employed with heterogeneous groupings, these strategies tend to encourage inter-ethnic friendships, develop communication skills, and improve academic performance, as well as improve the learning environment.

According to the study participants, strategies that appeared to be less effective included usage of dual language printed materials, guest speakers, and field trips. However, other research has indicated that guest speakers and field trips may be effective because students can experience realistic situations within the community while applying practical knowledge (Allison & Rehm, 2006). Hands-on experiences, common to the family and consumer sciences classroom, such as laboratories, simulations, demonstrations, and field trips allow students of many cultures to be actively engaged in the learning process (Allison & Rehm, 2007).

Providing a safe and secure learning environment for all students should extend to sexual and gender issues also. Advocates of gender education, in addition to sex education, Gurian and Henley (2001) suggest that human growth and development courses should be mandatory. Similar to other “best practices,” sex education should not be a one-time class but should be taught each year of high school becoming increasingly sophisticated and geared to students’ interests as they mature. Addressing issues openly may minimize some problems such as sexual

harassment, gay bashing, sexual objectification, and inappropriate sexual involvement, thus improving the learning environment.

Gardner (1993), in his theory in practice book on multiple intelligences, conceptualized a wider range of intelligences than previously had been tested by typical standardized tests. He defined intelligence as the ability to solve real-life problems, to generate new problems to solve, and to produce something or create a service that is valued within one's culture. The eight intelligences, because they are influenced by the cultures in which people are born, work with the cross-cultural perspective which will be required in the classroom of the future. It should be noted that Gardner originally described seven intelligences: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, and intrapersonal, then added an eighth: naturalist.

To gain an understanding of the multiple intelligences and how to utilize them to reach all students, beginning teachers could explore Gardner's (1993) work. For a more pragmatic approach rather than a theoretical one, beginning teachers could use *Teaching and Learning through Multiple Intelligences* by Campbell, Campbell, and Dickinson (2004). This book explores each of the eight intelligences thoroughly by (a) defining the intelligence, (b) providing a checklist of qualities, (c) defining learning processes, and (d) demonstrating how to establish each in a learning environment. Activities, lesson plans, and ways to include technology expand the description of Gardner's multiple intelligence theory. The authors present a balanced view of Gardner's work responding to those who dismiss the work as categorizing students too soon in life and failing to nurture the whole child. Campbell, Campbell, and Dickinson underscore the utilization of methods such as project-based teaching while deemphasizing teachers' perceived pressure for "coverage". A framework for assessing, as well as instructing, the multiple intelligences is also discussed. Acknowledging that students learn in different ways can help to establish a positive learning environment.

Students of poverty also learn in different ways. Beginning teachers may need to explore their own knowledge of, and beliefs about poverty to be able to work well with all students. Poverty has been defined as "the extent to which an individual does without resources" (Payne, 2005, p.16). Not only does that include financial resources but also emotional, mental, spiritual, and physical resources plus support systems, role models, and knowledge of hidden rules.

Payne (2005) believes that poverty can handicap the success of a student. To support the student of poverty, she suggests that cognitive strategies as well as coping strategies need to be taught to the students. Self-discipline as well as content material should be part of the curriculum to foster a quality learning environment. Lack of the skills and strategies can hinder the student of poverty. For example, students who respond to conflict by physically fighting may not have cognitive strategies, such as impulse control, to solve problems in other ways. These students may bully because that is the behavior they see modeled at home, and they have no other strategy to accomplish what they want to achieve. By helping students to develop coping strategies, the teacher can foster a safer learning environment.

Research has shown that students from poverty are motivated to achieve through the development of relationships (Payne, 2005). Teachers who (a) demonstrate that they care about students, (b) promote student achievement, and (c) serve as role models are all more likely to connect with students than those who do little or nothing to establish relationships. These relationships can do much towards supporting the positive learning environment.

Conclusion

Standard 7 is very complex and must be considered in light of all the other Standards. The importance of creating and implementing a safe, supportive learning environment is vital for the beginning teacher, but challenging because of the expansiveness of the Standard and Expectations. This article has provided a general overview for the Standard and listed several major resources that could be utilized by the beginning teacher. The majority of the resources have additional references, curriculum materials, and sources that could be beneficial to the beginning teacher in establishing and maintaining a healthy and positive learning environment.

Brief Annotated Bibliography

Values, Character Education, Emotional Intelligence, and Caring

Devine, T., Seuk, J. H., & Wilson, A. (2001). *Cultivating heart and character: Educating for life's most essential goals.* Chapel Hill, NC: Character Development Publishing.
An extensive discussion of the foundations of character education is presented in this comprehensive book. The book also discusses challenges facing youth, plus ways that healthy lifestyles can be supported.

Hunt, G. M., & Hampton, B. J. (2002). *Honey for a teen's heart.* Grand Rapids, MI: Zondervan.
For the beginning teacher who might not have an extensive background in adolescent literature, this book provides an annotated list of books that could be used to help with value integration in the classroom. One caveat is it does present the material from a Christian worldview, so it may not be appropriate in its entirety for all audiences.

Lickona, T. (1991). *Educating for character: How our schools can teach respect and responsibility.* New York: Bantam Books.
Ways that respect and responsibility can be modeled and encouraged in the classroom are presented in this comprehensive book. Lickona offers help on creating a democratic environment such as a class meeting and working with cooperative learning.

Pickard, M., & Toevs, B. (2006). *Enhancing students' emotional intelligence.* Ellensburg, WA: Family and Consumer Sciences Education Association.
Drawing on the theory of Daniel Goleman, Pickard and Toevs offer lesson plans to help teachers develop self-awareness, self-regulation, and self-motivation in students. The lesson plans are linked to the *National Standards for Family and Consumer Sciences*. The comprehensive plans include learning activities, process questions, and worksheets.

Ryan, K., & Bohlin, K. E. (1999). *Building character in schools: Practical ways to bring moral instruction to life.* San Francisco: Jossey-Bass.
Notable quotes from famous individuals are only one of the appendices in this book. Also provided are frameworks for developing character within classrooms, schools, and communities. Action strategies, including one hundred ways to bring character education to life, help to make this a useful resource for teachers.

Starkman, N., Scales, P. C., & Roberts, C. (1999). *Great places to learn: How asset-building schools help students succeed.* Minneapolis, MN: The Search Institute.

Developmental assets can improve academic success for students. Read success stories that can serve as inspiration for change in schools and communities.

Safety

"Operation Respect: Don't Laugh at Me" Retrieved from http://www.operationrespet.org.
A character development curriculum is available as well as a CD and music by Peter Yarrow of Peter, Paul, and Marry. The organization promotes creating compassionate, safe, and respectful environments.

STOP the violence—Students taking on prevention. Retrieved from, http://www.fcclainc.org
The peer-to-peer education program empowers Family, Career and Community Leaders of America (FCCLA) members to take action in their schools and communities to recognize, report, and reduce violence.

Thompson, J. G. (2007). *The first-year teacher's survival guide.* San Francisco: Jossey-Bass.
Thompson believes that a safe and orderly learning environment is established through positive classroom management. This book offers many suggestions for managing through early intervention. Working with many types of diversity, e.g., students who are gifted, at-risk, non-English speakers, have special needs, or live in poverty, is also discussed.

Diversity

Understanding Prejudice
To uncover hidden biases, beginning teachers could take the Implicit Association Tests at this Web site. Reading lists for all grade levels are provided and cover the topics of prejudice, stereotyping, and discrimination. Originally developed to support a college text, the Web site links to over 2,000 resources, as well as interactive exercises. Retrieved from http://www.understandingprejudice.org.

Banks, J. A. (2003). *Teaching strategies for ethnic studies.* Boston: Allyn and Bacon.
Banks provides background and ideas for working with many different ethnic and racial groups. Also included are strategies for creating and evaluating units and lessons. An extensive reading and resource list is also included.

Allison and Rehm
These two authors have conducted several studies therefore their articles are full of strategies that practicing teachers have deemed successful. Also offered are suggestions for needed research that beginning teachers could consider conducting in the future.

Thompson, J. G. (2007). *The first-year teacher's survival guide.* San Francisco: Jossey-Bass.
Thompson believes that a safe and orderly learning environment is established through positive classroom management. This book offers many suggestions for managing through early intervention. Working with many types of diversity, e.g., students who are gifted, at-risk, non-English speakers, have special needs, or live in poverty, is also discussed.

Cushner, K. (2006). *Human diversity in action: Developing multicultural competencies for the classroom.* New York: McGraw Hill.
This workbook encourages students to learn by reflectively thinking about a wide range of diversities including gender, ethnicity, and class. For example, the plight of women is examined through activities dealing with hourly wages and nutritional anemia. A case study activity has students examine how low-income mothers of various ethnic groups, e.g., Jewish, Chinese, Native American, and Islamic, would react to a school expense.

Payne, R. K. (2006). *Working with students: Discipline strategies for the classroom.* Highlands, TX: aha! Process, Inc.
This compact and inexpensive book provides checklists for teachers to reflect on their current practices, plus suggestions on how to respond to various types of students and parents. Payne highlights strategies for developing mutual respect with students of all ages.

Multiple Ways of Learning

Campbell, L., Campbell, B., & Dickinson, D. (2004). *Teaching and learning through multiple intelligences.* Boston: Pearson Education, Inc.
Practical applications of multiple ways of teaching and learning are presented in this workbook. Appreciating differences, global problem-solving, creating an empowering school culture, and examining cultural diversity through the arts are some of the topics that could be of interest to the family and consumer sciences teacher.

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Learning Environment: Respecting Diversity and Exceptionality

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Education has a strong correlation with individual success. Many who select family and consumer sciences as a career technical pathway are students with exceptionalities and from diverse cultures. The family and consumer sciences (FCS) teacher educator needs to prepare the teacher candidate for their role as an educator. One part of that role is to ensure that all students regardless of culture, socioeconomic level, family structure, or disability have a safe, supportive learning environment that challenges their thought processes and respects unique differences. This article provides FCS teacher educators with recommendations for the preparation of teachers with background and information regarding the rationale for the National Standards for Teachers of Family and Consumer Sciences *on Learning Environments. Also included are strategies and resources that enhance learning and facilitate respect for diversity.*

Introduction

The *National Standards for Teachers of Family and Consumer Sciences* (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004) were developed to provide guidelines for the family and consumer sciences teacher educator to prepare family and consumer sciences (FCS) teachers. The purpose of this article is to provide a rationale for Standard Seven, Learning Environment and include strategies on how a FCS teacher educator can enable a FCS teacher to "create and implement a safe, supportive learning environment that shows sensitivity to diverse needs, values, and characteristics of students, families, and communities" (National Association of Teacher Educators of Family and Consumer Sciences [NATEFACS], 2004); thus enhancing the academic potential for all students. This Standard should not be addressed in isolation. In fact, the teacher educators should prepare teacher candidates to recognize the correlation between the learning environment and instructional strategies, curriculum development, and student organization integration for the development of a safe and supportive learning environment.

Significance of this National Standard

Within the last three decades, the United States has seen a change in demographics which has resulted in an increase in the number of diverse families (Bailey, Skinner, Rodriguez, Gut, & Correa, 1999). In addition, landmark legislation, such as the Individuals with Disabilities Education Improvement Act (U.S. Congress, 2004) and No Child Left Behind (U.S. Congress, 2001), and changes with the education system (Lewis & Doorlag, 2006; Turnbull, Huerta, & Stowe, 2006; Yell & Drasgow, 2005) have greatly impacted student population. Data indicate that large portions of students who select career/technical classes are students with exceptionalities and students with limited English proficiency (Division of Vocational-Technical Education, 2005). According to Davis (2006) nearly 40% of the population in the United States represents an ethnic or racial minority and approximately 5.1 million children are English language learners (Snipes, Soga, & Uro, 2007). This may cause teachers to be faced with an ever increasing number of students who may hold cultural values, beliefs, preferences, and languages

different from their own (Sexton, Lobman, Constans, Snyder, & Ernest, 1997). In addition, this may result in family members who do not speak or understand English; therefore, making the adjustment into the community and school difficult. The family and consumer sciences teacher educator is the catalyst for providing family and consumer sciences teachers instructional activities, knowledge, and attitudes that will empower students from diverse backgrounds and students with exceptionalities to become proficient in society (Sileo & Prater, 1998).

Diversity

Diverse does not mean deficient. Diversity includes a number of factors such as race, ethnicity, gender, language, and income. Each factor can influence the relationship between teacher, student, family, and community. According to Rehm and Allison (2006), all students are diverse, even those from the same cultural background. Respecting diversity requires that teachers look at all students with interest and openness, and utilize flexibility when providing instruction. Students may be considered at risk and need the development of resiliency factors to be successful. Teachers who have been taught to appreciate diversity are more self-confident, have increased abilities, and move beyond judging students by superficial attributes such as skin, color, speech patterns, and exceptionality (Sileo & Prater, 1998).

The Individuals with Disabilities Education Improvement Act (U.S. Congress, 2004) was reauthorized in 2004 and revised to align with the six major principles of No Child Left Behind (U.S. Congress, 2001), that guaranteed each child an appropriate education (Lewis & Doorlag, 2006; Turnbull, Huerta, et al., 2006; Yell & Drasgow, 2005). Although there are six major principles, three are specifically related to learning environments: accountability, highly qualified, and scientifically based intervention. The first principle of NCLB, demands accountability as demonstrated with proficiency scores in major academic courses as assessed on standardized state assessments. Career and technical education has changed from the authorization of NCLB by the correlation of academic content in courses and by the sequencing of course work that leads to credentials or industry certification (Career Technical Education, 2008). The participation of students with disabilities in these assessments is provided under IDEA. The second principle, discusses teachers being highly qualified in the subject area taught. All teachers of children with special needs are required to be highly qualified according to IDEA. The final principle addresses the use of scientifically research-based curriculum utilized by highly qualified teachers. IDEA also “requires educators to use scientifically based methods in evaluating a student and then providing an appropriate education to the student” (Turnbull, Huerta, et al., p. 3).

The family and consumer sciences teacher meets these requirements by being highly qualified and incorporating principles of math, science, and language arts into the various courses. Research-based materials are provided to advance career and technical education programs (Career Technical Education, 2008). To become highly qualified, teachers must have a Bachelor of Science degree and demonstrate proficiency in the content area of family and consumer sciences (FCS). Proficiency is demonstrated by evidence of passing a national exam. The Carl D. Perkins Improvement Act of 2006 requires that alignment occur between family and consumer sciences course standards and academic course standards (U.S. Congress, 2006).

Students with Exceptionalities

In order to provide an appropriate education for all students, educators must not discriminate on any basis. Public Law 94-142 of 1975, Public Law 105-17 of 1997, IDEA 2004,

Section 504 of the Vocational Rehabilitation Act of 1973, and Public Law 101-336, the American with Disabilities Act, guarantee the rights of individuals to be free from discrimination (Lewis & Doorlag, 2006; Turnbull, Huerta, et al., 2006). According to Lewis and Doorlag "all students" were originally defined by Goals 2000 as "including not only typical students and those who are academically talented but also students with disabilities, those from diverse cultural and ethnic groups, those with limited proficiency in English, and those who are disadvantaged" (p. 19).

Although IDEA does not address inclusion specifically, it does address the least restrictive environment, and mandates that all students be educated in their least restrictive environment, which is education with their peers to the maximum extent possible. On the continuum of services, the least restrictive environment is full-time placement in the general education classroom, and that classroom may be the family and consumer sciences classroom.

As aforementioned, many students are enrolled in a technical class with the probability of joining the work force rather than the collegiate life choice. The major academic emphasis in the high school curriculum does not meet the requirement of guaranteeing non-college bound students an appropriate education (Bowe, 2005). That is a conundrum for schools and the communities in which these students live. Dever and Knapczyk (1997) suggested a curriculum that would include the functional skills necessary for students seeking post high school employment. Where better to learn these everyday skills than in a family and consumer sciences classroom? The curriculum is established and students with exceptionalities as well as diverse learners would benefit from a life skill oriented curriculum. Family and consumer sciences teacher educators have the responsibility to prepare teacher candidates to teach students a wide variety of life skills such as money management, child development, parenting skills, nutrition, interpersonal relations, and career preparation (McCombie & Zimmer, 2007). Inclusive classrooms allow students to see that life skills, "a distinguishing characteristic of general and special education" (Turnbull, Turnbull, Whemeyer, & Parks, 2003, p. 67), impact quality of life for everyone. Benz, Lindstrom, and Yovanoff (2000) report on two studies, a quantitative and a qualitative, which examine both secondary and transitional procedures. There were six factors discussed which have significant impact on post school outcomes. Two of the six align with the premise that teaching functional skills relate to post school outcomes. The two factors are:

> Participation in vocational classes during the last 2 years of high school, especially classes that offer occupationally-specific instruction, [and] competence in functional academics (e.g., reading, math, writing, and problem solving); community living (e.g., money management, community access); personal-social (e.g., getting along with others); vocational (e.g., career awareness, job search); and self-determination (e.g., self-advocacy, goal setting) skills. (Benz et al., 2000, p. 2; Benz, Lindstrom, Unruh, & Waintrup, 2004, p. 2)

Both studies discussed Youth Transition Program for students with disabilities who will require additional assistance to transition after high school to the work force. It was noted that 82% of participants acquired post school employment or training at the end of the program (Benz et al., 2000, p. 3). FCS classes offer the real world approach (Reiseberg, 1998) where students have the opportunity to merge skills with real life situations.

Gender

As an appropriate learning environment, the safe and supportive classroom has many important characteristics. Among the important characteristics, it is a place where learning is

expected, bullying is prohibited, and both genders are welcomed. Family and consumer sciences teachers must be aware of gender bias in schools so that both genders are equally welcomed and represented positively in the family and consumer sciences (FCS) classroom. In today's society it is helpful for all members in the family to be proficient with the multiple roles of the family. Similarly, it is important to show a balance of males and females in all family roles. The course content in the FCS classroom provides an appropriate educational setting for students to explore supportive and independent gender roles.

Socioeconomic Level

The socioeconomic level of a student includes not only income but educational level of the family members as well as the status associated with family's occupation. One in five of America's children lives in poverty and approximately one third of students with exceptionalities come from a household with below poverty incomes (Turnbull, Turnbull, Erwin, & Soodak, 2006). In the family and consumer sciences classroom a respectful and supportive learning environment includes teaching strategies and projects that are accessible and feasible to all students regardless of socioeconomic level.

Literature Review and Rationale for the Standard

Historically, John Dewey (1933) highlighted three important characteristics of effective teaching. These characteristics include open-mindedness, wholeheartedness, and intellectual responsibility. Open-mindedness refers to the ability to be free from prejudices. Wholeheartedness refers to the enthusiasm the teacher has for teaching. Finally, intellectual responsibility refers to the desire to keep current in pedagogy and to develop teaching strategies that are engaging for the learner. These qualities are relevant and effective in today's educational environment. Family and consumer sciences teacher educators need to stress to teacher candidates the importance of developing a trusting non judgmental relationship with all students and families regardless of socioeconomic level and other characteristics. Utilizing these qualities ensures that teachers will create a learning environment that is sensitive to the needs of all students and families as indicated by Standard Seven.

The current focus is to develop characteristics necessary to be an effective teacher for diverse populations. In an article by Grant and Gillette (2006), they indicated that it is not enough to have teachers enter the profession who love children and have a desire to help them learn. These characteristics are often forgotten when faced with difficulty planning instruction and the daily requirements of the school environment. Ingersoll reported (as cited in Grant & Gillette) that teachers leave their profession at a higher rate than other professional fields. Research by Grant and Gillette identified several characteristics needed to be an effective teacher regardless of "where, who, or what" the teachers will teach. These skills include the ability to develop curriculum that is relevant to the student; therefore, meeting the student's educational and social needs. Consequently the skills of reflection, such as the assessment of student learning and identification of problems, are helpful in teaching all populations, including diverse populations.

Knowledge Necessary to Address the Standard

There are three main stages of learning (Lewis & Doorlag, 2006). A teacher must understand these stages to determine where each student is in terms of acquisition, maintenance, and generalization. In the acquisition stage a student is acquiring knowledge or initial learning.

Maintenance involves maintaining and recalling knowledge that has been acquired. The final stage is generalization; it is where true learning occurs. In the generalization stage a student can apply knowledge learned to new situations. Learning problems can occur in any stage. Students also bring their own prior knowledge and experiences or lack of experience and knowledge to each stage. Therefore, for learning to occur, the student must find meaning in what is being taught, and the teacher must understand how best to motivate the student to learn. Ultimately the content must have relevance to the learner. This may require the family and consumer sciences teacher to "think outside the box" when planning relevant instructional strategies that recognize and respect the unique characteristics of learners as stated in Standard Seven. An example of the stages of learning involves learning how to write a check. In the acquisition stage, the student needs to learn the parts of a check and how one writes a check. An activity during the maintenance stage may include a student searching a catalog or the Internet for an item of choice. The student then writes a check to the purchasing source for the correct amount. At the generalization stage the student would be able to go to a store, purchase desired items, and pay with a check. Grant and Gilliam (2006) stated that strong communication and collaboration skills along with using technology are also necessary to be an effective teacher with diverse populations. Using technology, as a tool for learning or as a way to enhance collaboration with other peers, the home, and the community, also enhances a teacher's ability to be effective in providing a supportive learning environment for diverse populations. Research on educational equity by Persell (1997) identified that teachers with higher expectations for students have increased interaction, give more praise, have better behaved students, and demonstrate increased student learning.

At-Risk and Resiliency

As noted earlier, diverse students may be considered at risk. At-risk students are often in danger of dropping out of school. In urban schools nationwide 79% of students are African American, Hispanic, and Asian American. In addition, 64% of students are eligible for free and reduced lunch (Snipes, Horwitz, Soga, & Casserly, 2008). This has caused educators to examine resiliency in regard to academic success. Resiliency is the ability to rise above adversity and develop strength through hardships ultimately becoming an emotionally healthy adult with a productive life (Smokowski, 1998). Progress has been made in the understanding of the resiliency process. The emphasis has begun to shift from a focus on the cause, to one of prevention and intervention. Prevention programming focuses on circumventing situations before an individual experiences the effect (Smokowski). In addition, multidimensional long-term education programs that provide follow-up support have been identified as more successful in the development of resiliency than brief, limited programs.

Diversity and Exceptionality

Awareness of diversity and exceptionality in the family and consumer sciences classroom, which may be deemed the least restrictive environment for many students, is essential. Family and consumer sciences teachers should be mindful of the values and ideologies that individuals and families use to define themselves. According to Allen (2005), cultural competency is an awareness of oppression faced by others and active involvement in social justice. It is important to recognize popular opinion and the existing power relationship used by schools that students and families encounter day to day. Students in special education classrooms may be looked down upon by others in the school environment. In addition, many individuals

from marginalized populations (minorities) face oppression and discrimination. “The greater the stigma attached to an ethnic group, the more difficult it is for mainstream professionals to recognize cultural strengths that are different from their own” (Harry, 2002, p. 132). Including students with exceptionalities and students from diverse cultures in the regular classroom provides them with opportunities to participate with peers and gain skills and self-esteem. Failure to do this will inhibit the development of a safe and supportive classroom for all students. In addition, the family and consumer sciences classroom provides the perfect environment to showcase the diversity of family roles and traditions, child care practices, and other unique perspectives of family and culture.

The role of the family and consumer sciences teacher educator is to prepare family and consumer sciences teachers that acceptance must first come from the classroom teacher. If the teacher is accepting of students with exceptionalities and those from diverse cultures, the students in the classroom will follow suit. Churchill, Mulholland, and Cepello (2008) discuss that behavioral interventions include using modeling techniques to help reinforce a change in behavior. If teachers accept all students and model behavior coupled with reinforcement then changing behaviors may occur. Blasi’s (2002) study prepared individuals to support diversity by shifting the focus from deficient to one of strength. The goal was for pre-service teachers to view students and families through a strength-based perspective and look for potential instead of deficiencies. This study used the term “of promise” when describing students and families living in poverty, belonging to a cultural/ethnic minority, a family having a non-traditional family structure, and a family who spoke a first language other than English. Utilizing this strategy the teacher educator can instill in the teacher candidate the importance of being non-judgmental and accepting of all families while recognizing the strength of the families and culture. Characteristics needed by individuals to support diversity are (a) self-observation, (b) an awareness of one’s environment, (c) one’s influence on others, and (d) a flexible attitude toward cultural norms and language (Harry, 2002). These qualities will go far in enhancing the environment of the family and consumer sciences classroom.

Correlation of Family and Consumer Sciences to the National Standard

Often, the family and consumer sciences teacher is responsible for teaching skills and fostering resiliency; therefore, the family and consumer sciences curriculum can be viewed as having a focus on prevention. The curriculum content areas, such as family; parenting; consumer and family resources; food science, dietetics, and nutrition; interpersonal relationships; and human development, provide all individuals with information needed to face adversity and manage resources well. McMillian and Reed (1994) isolated several factors that contribute to academic success with students who are at-risk. These factors include individual attributes such as intrinsic motivation, a positive attitude, using time wisely, forming a close bond with one’s caregiver, and using school as support outside the home. McMillian and Reed concluded that utilizing instructional strategies that promote a sense of internal control, goal setting, and personal responsibility can foster resiliency that can lead to academic success. Current research by Hanson and Kim (2007) developed a self reporting survey that indicates how educators can improve the school environment to promote resiliency in children. The nature of the family and consumer sciences curriculum and the course competencies allow the student and the teacher to develop a rapport that will foster the growth of individual students. Family and consumer sciences multi-dimensional curriculum offers instruction in goal setting, personal responsibility,

and decision-making skills, while providing the student with choices and opportunities for individual expression.

Students enrolled in family and consumer sciences develop skills that enable them to meet the challenges of society. Family and consumer sciences content encourage students to develop goals, which provide a sense of purpose and meaning. Through interactive instruction**,** students gain knowledge, skills, techniques in leadership, and effective communication skills (American Association of Family and Consumer Sciences [AAFCS], 2008). These skills ultimately impact quality of life. Quality of life is the ability to satisfy normative expectations and meet needs in major life settings, such as home, family, work, and school, while utilizing available resources and opportunities (Bailey et al., 1998).

Park, Turnbull, and Turnbull (2002) identified three components of quality of life. These included having needs met, enjoying life together, and having opportunities to achieve goals that have meaning. The definition of quality of life varies and is as unique as each individual. Therefore, students enrolled in family and consumer sciences courses develop skills to use throughout the lifespan. These skills can help them achieve meaningful goals and meet the everyday demands of society. Finally, the Family, Career and Community Leadership Association (FCCLA), the student leadership organization associated with family and consumer sciences, provides extracurricular activities that are important for the development of resiliency. FCCLA provides an outlet for expression, application of learning (generalization stage), and opportunity for success (Family, Career and Community Leadership Association [FCCLA], 2008). These positive experiences may help the student to develop a sense of belonging.

Effective Strategies and Resources

As a family and consumer sciences teacher, it is important to foster culturally responsive pedagogical strategies that will demonstrate high expectations and acceptance of cultural and learning style diversity. These steps will impact the climate of the classroom. Incorporating an accepting and flexible attitude will enhance the learning potential for all students (Rhem & Allison, 2006). Davis (2006) suggested that in order for diverse learners to feel acceptance, their cultural differences must be viewed as assets rather than deficits. Students will imitate the attitude the teacher is modeling, so teachers must be accepting of all students and recognize their strengths. Sousa (2001) stated that a student must feel physically safe and emotionally secure before learning takes place. Since emotions affect cognition, a teacher must be sure that the classroom environment is one where all students, regardless of their gender, culture, or exceptionality are emotionally and physically safe.

What is not so obvious is having the teachers know themselves and understand that they, too, have a culture that can be imposed upon their students. Davis (2006) devoted an entire chapter of *How to teach students who don't look like you: Culturally relevant teaching strategies* to reflective questions that each teacher must answer to understand his/her beliefs so the diverse learner can be reached, supported, and taught. One must reach across cultural differences which are enhanced through dialog and an understanding of personal belief systems. The teacher must become "culturally proficient." That does not mean that one must understand everything about everyone's culture, but the teacher must acknowledge how beliefs impact actions; building respect and accommodations of cultural aspects of students' lives formulates a positive belief system (Davis)

Classroom activities that validate other cultures so students gain respect and become informed learners about the world should be a vital part of the curriculum. This can be

accomplished by inserting content on how different cultures embrace many topics, such as child-rearing practices, family interactions, food or food preparation techniques, finances, and family values.

Understanding Biases

As previously stated, teachers must understand and explore their own biases before they can adequately address diversity in their classes and lessons. According to Banks and Banks (1997) six biases exist in teaching materials: (a) linguistic bias, (b) stereotyping, (c) invisibility, (d) imbalance, (e) unreality, and (f) fragmentation. Family and consumer sciences teacher educators should instruct family and consumer sciences teachers to avoid the six biases by evaluating materials for equity and imbalance. Negative biases and stereotyping may be exhibited in the classroom by language, tone of voice, and images. Here are some suggestions to help identify and/or eliminate a bias.

1. If the material contains biases, confront the bias rather than ignore it. Teach students about the various forms of bias (textbooks, bulletin boards, DVDs, videos, etc.) (Banks & Banks).
2. Use supplementary materials when the textbook is biased.
3. Analyze the class seating chart to see if there are students grouped together by race/gender. Intervene when students segregate by race/gender, and encourage and praise when diverse groups work together.
4. Continue reading and attending professional development in the areas of educational equity.
5. Learn about verbal and non-verbal communication from all cultures in the class. Be aware of mixed messages or words that may mean something totally different in the American culture than another culture.
6. Reflect on personal biases and beliefs and then leave personal biases outside the school building and become the best teacher for all children.

Creating Culturally Diverse Classrooms

To avoid learning outcomes that reflect negative, unrealistic, and fragmented biases, make sure curriculum and other resources, such as audio visual, bulletin boards, and posters, represent both males and females in supportive and nurturing roles within the family. To address invisibility make sure each cultural group in your class as well as individuals with exceptionalities are also depicted in a positive light (Banks & Banks, 1997). The following is a list of suggestions to facilitate the creation of a culturally diverse classroom.

1. Since teachers are models for their students they should use language that respects all diversities. An example would be to use person first language by referring to the student first, such as “the child with special needs rather than the handicapped student”.
2. Discuss contributions of Americans who are minorities or from other cultures such as George Washington Carver, Martin Luther King, Maya Angelou, and Cesar Chaves.
3. Display articles and advertisements that discuss diverse cultures.
4. Display simple phrases or label items in the classroom in multiple languages. Visual aids are more effective when they are graphic and pictorial.
5. Build a classroom community where all are treated with respect (Davis, 2006).

6. Use cooperative learning and activities that enhance a mutual respect and ones that allow students to learn about each other (Davis).
7. Treat each culture as a unique culture by not lumping together all minorities or exceptionalities. Do not assume that all students that speak Spanish speak the same dialect and can understand each other. For example, there are many dialects in Guatemala.
8. Encourage participation of all students even if it requires the uses of nods, hand signals, and visuals.
9. Use peer tutoring and collaborative activities to assist students.

Implementing Educational Strategies

Significant landmark legislation, such as IDEA and NCLB, was passed to provide equal treatment and full educational opportunities for individuals with exceptionalities. By receiving appropriate services and support, individuals with exceptionalities are able to achieve at levels that were once considered impossible. This includes graduation from high school, going to college, attending vocational/technical school, and becoming gainfully employed. However, students may have needs that challenge the knowledge and resources of teachers and programs (Wheeler, 2000). Students that IDEA has identified as mentally retarded or cognitively impaired may be the most challenging in regard to what constitutes appropriate services and support.

When focusing on students with cognitive impairments, the major approach is habilitation (Lewis & Doorlag, 2006). Habilitation is essentially preparing students to become successful adults. This is accomplished by teaching the most basic and functional skills. Functional skills are those skills, which are required for the successful completion of everyday life tasks and the skills required to keep a job. These skills include beginning work promptly, task engagement, task completion, and cooperating with co-workers. When planning to meet the diverse needs of your students it is very important to know your audience. The teacher must have knowledge of the stages of learning and of the various learning styles. They must also provide more than one mode of presenting information and use alternatives such as pictures, translated materials, and physical modification of equipment. When working with students with exceptionalities, highlight the strengths of the individual student. Here are some suggestions that are functional in nature.

1. Make appropriate accommodations and modifications in your teaching and assessing so that all children have their needs met (Davis, 2006). An accommodation is when you do not change the curriculum or standards. An example for an accommodation is when you have a student following a recipe which requires chopped onions. The student can use a pizza cutter to chop the onions if using a knife is difficult. The standard is not changed. A modification is when you do change the curriculum and standards for a student. If that same student uses onion flakes rather than chopping fresh onions because of some reason she/he cannot chop onions, then a modification has been made because the standard has been altered when the psychomotor skill was deleted.
2. When using computer programs to translate, it is better to use isolated words and phrases. When whole paragraphs are translated meaning may be loss so it may help to use bilingual professionals to promote accuracy, communication, and instruction (Fradd, 1999).

3. Organize a service event that the class orchestrates. This can be a local event such as a blood drive, a recycling project, or a FCCLA project. It can also be a national service event for the victims of Hurricane Katrina or other natural disasters suffered in our country.
4. Create a Parent Resource Library where books on parenting and community programs are available on loan.
5. Create a classroom Web page or newsletter and feature a specific student each week.
6. To increase attention and retention of what is being taught provide opportunities for practice and repetition, problem solving activities, and application of new ideas and information to daily life. This makes learning relevant for the student.
7. Service learning, which benefits all students, is an effective teaching strategy for at-risk students. This strategy can be one of the factors in promoting resiliency. Service learning projects require students to give to something beyond themselves such as family, peers, and community. It involves addressing real life problems while utilizing the content of course standards. Service learning can easily be incorporated into the family and consumer sciences curriculum and the student leadership organization FCCLA. Students gain decision-making skills and increase problem solving skills, collaboration, and communication skills. Service learning projects are helpful in changing the climate of the classroom to one that is focused on helping others.

Conclusion

Research by Rehm and Allison (2006) indicated that family and consumer sciences teachers are aware of diversity in the classroom. However, most of the modifications for diverse students only include grading and presentation of material. The climate of the classroom was not modified. As stated earlier, students must feel safe and emotionally secure for learning to take place. Incorporating an openness and flexible attitude enhances the learning potential for all students. The strategies and Web links suggested below can be used by the family and consumer sciences (FCS) teacher educator in providing the teacher candidate with techniques to enhance the climate of the classroom, so that it is supportive and respectful of all students including those with exceptionalities and those from every culture. Since education impacts the success of the individual, families, schools, and communities are influenced by our roles as teacher educators in meeting this National Standard in an effort to enable the family and consumer sciences teachers to meet the needs of all students. All students regardless of culture, family structure, or disability, deserve a safe, supportive learning environment that challenges their thought processes and respects their unique differences. The teachers need not only to establish and maintain such a learning environment, but also utilize teaching strategies that enhance the strength of the students selecting a career/technical pathway. The family and consumer sciences teacher educator can incorporate these strategies and suggestions into courses for teacher candidates such as the introduction to teaching course, material and methods course, observation and field experience seminar, and student teaching seminar. The teacher educator must also demand that teacher candidates explore their own bias before entering the classroom. Failure to establish and maintain a desirable learning environment and/or use teaching strategies that motivate students to reach their full potential may result in low enrollment and possible closure of the family and consumer sciences program which will result in students that have unmet needs, and as educators we cannot allow that to happen!

Annotated List of Suggested Web Sites

American Association on Intellectual and Developmental Disabilities
Web Link: http://www.aamr.org
This site is part of a professional organization.

Brigham Young University
Web Link: http://education.byu.edu/diversity/activities.html
This Web site is associated with Brigham Young University and offers links to over 12 sites for lesson plans to multicultural monthly calendars.

EdChange
Web Link: http://www.edchange.org/multicultural/activityarch.html
This Web site contains awareness activities. There are a variety of topics from understanding prejudice to collaborative problem solving.

JumpStart
Web Link: http://www.jumpstart.com
This link is associated with the Knowledge Adventure Store, but it does have several free online games and a learning style quiz.

Just Choices
Web Link: http://www.justchoices.com/index.html
This Web site provides examples of worksheets, posters, and a video excerpt along with a listing of resources. Teachers can order a free copy for exploring social justice.

LD Online
Web Link: http://www.ldonline.org
This site has a plethora of information about learning disabilities and attention deficit disorder (ADHD) for parents and teachers. Links can also be accessed in Spanish.

LD Resources
Web Link: http://www.ldresources.com
This has been an online resource since 1995 and is now considered a Weblog. It has several links to articles and information for professionals, parents, and persons with learning disabilities.

PBS
Web Link: http://www.pbs.org/wgbh/misunderstoodminds
This is an interactive Web site where parents and teachers can go and experience what children with disabilities experience. It is produced by WGBH in Boston.

Tufts University
Web Link: http://www.cfw.tufts.edu/viewsite.asp?categoryid=3&topicid=62&site=263

This Web site is associated with Tufts University, Child and Family Web Guide. It has links to articles on multicultural education with advice and suggestions for parents and teachers.

Wilderdom

Web Link: http://wilderdom.com/games/MulticulturalExperientialActivities.html
This Web site offers more than 200 games and activities for multiculturalism.

Wisconsin Assistive Technology Initiative

Web Link: http://www.wati.org
This site has information on curriculum, assistive technology services and products, training programs, and a library.

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Professionalism: Ethical Professional Practice for Teachers of Family and Consumer Sciences

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The National Standards for Teachers of Family and Consumer Sciences *(National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004) suggest that family and consumer sciences (FCS) teachers are expected to engage in practices that reflect both the technical and ethical standards of the calling to which they are committed. The purpose of this article is to promote understanding and encourage implementation of Standard 8, Professionalism, which calls for FCS teachers to engage in ethical professional practice. The article (a) addresses the unique ethical responsibilities of educators, (b) describes the major theoretical perspectives that support ethical practice, (c) provides an overview of historical and philosophical bases of professional ethics in FCS education, (d) gives examples of formal codes of ethics that guide the professional practice of FCS teachers, (e) examines significant ethical issues in public education and their implications for FCS education, and (f) suggests strategies and resources to help teacher educators prepare beginning FCS teachers to fulfill their ethical responsibilities to those they serve.*

It is timely and appropriate that the *National Standards for Teachers of Family and Consumer Sciences* (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004) emphasize the importance of ethical professional practice. Standard 8, Professionalism, states that family and consumer sciences (FCS) teachers will "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" (NATEFACS).The standard suggests that ethical practice is fundamental to the concept of professionalism; that family and consumer sciences teachers serve not only students, but also the public interest; and that they are required to maintain professional competence in order to fulfill their obligations to those they serve.

As indicated in Standard 8, ethical professional practice has been a concern for family and consumer sciences education throughout our history. This concern is reflected in the writings of Blankenship and Moerchen (1979), Brown and Paolucci (1979), East (1980), and Thomas (1986), among others. More recently, the Education and Technology Division of the American Association of Family and Consumer Sciences devoted a yearbook to the topic, *Thinking for Ethical Action in Families and Communities* (Laster & Thomas, 1997), and the *Journal of Family and Consumer Sciences* published a theme issue on ethics (Anderson, 2005). Craig (1996) described ethical practice as the "heart" of the profession, "…if we really are a profession that has as its goal the improvement of quality of living for individuals and families, ethics must be at the heart of our education, training, and performance" (p. 150).

So, what does it mean to say that family and consumer sciences teachers are professionals who engage in ethical professional practice? The term "professional" may be defined broadly to refer to any person who engages in an activity for gain or livelihood, or more narrowly to describe a person who is engaged in a calling that requires specialized knowledge and often long

and intensive academic preparation (Mish, 1988). The latter definition provides a good basis for exploring the professional role of family and consumer sciences teachers. It assumes that teachers will engage in practices that reflect both the technical expertise, based on the specialized content and pedagogical knowledge and skills described in the *Standards* document, and the ethical standards of the calling to which they are committed. Using this definition, the term "ethical professional practice" becomes somewhat redundant, given that ethical behavior is an inherent part of what it means to be professional.

When considering what ethical professional practice *is*, it also is useful to consider what it *is not*. For example, ethical behavior cannot be defined solely in terms of one's personal value system. Although ethics and values clearly are related, not all value systems are equally ethical. Some values are consistent with moral principles, but others are rooted in self-interest, expediency, or other non-ethical or unethical motives. Further, ethical behavior is not synonymous with that which is legal. Moral principles often are codified into law, but it goes without saying that some laws are based on stronger moral foundations than others.

Like most professionals, family and consumer sciences teachers provide services to clients (i.e., students) and the larger society. Because they serve others, professionals are expected to adhere to certain standards of performance, as reflected in the wording of Standard 8. Ethical professional responsibilities include, but are not necessarily limited to, showing respect for all persons, maintaining confidentiality, avoiding conflicts of interest, separating the public interest from self-interest, being an effective advocate for those who are served, and ensuring continuing competence through professional development.

Greenfield (1991), Lashaway (1996), and Sergiovanni (1992) all have observed that education professionals face unique ethical challenges. For example, because educators facilitate students' access to knowledge, they have significant influence on the quality of life in local communities and beyond. Therefore, they have a responsibility to serve both their students and the public good. Teachers must be particularly cognizant of ethical obligations to their primary clients -- students who are subject to the authority of the school and have little power of their own.

Laster (1997) has suggested that students often lack the maturity and capability of making moral judgments on their own, and may look to teachers for moral direction. A related challenge for teachers, as noted by Niehoff (2006), is the moral certitude of students who assume that the answers to ethical questions are obvious, even though "they may not even have framed the questions correctly" (p. 1). For example, most people who live in the United States take the convenience of bottled water for granted, and some believe that it is superior in quality to tap water. Family and consumer sciences teachers can lead students to consider questions such as: What are the costs and benefits of drinking bottled water from different sources, e.g., "pure natural spring water" from some far-away place or water from a public water source labeled "PWS"? What are the energy costs associated with bottling water and transporting it to retailers and recycling the plastic bottles? How long does it take for a plastic bottle to biodegrade? What are the environmental costs of clogging public landfills or littering the landscape with plastic bottles that are not recycled?

Theoretical Frameworks

"Ethics" refers to the discipline or field of study that deals with principles of right and wrong behavior, and the term also may be used in reference to the principles themselves. Although it is possible to differentiate between the terms "ethical" and "moral," in practice, the

two are used interchangeably. Indeed, one term frequently is used to define the other; for example, Frankena (1963) defined ethics as "…philosophical thinking about morality, moral problems, and moral judgments" (p. 3).

The study of ethics emerges from a variety of theoretical perspectives. The two basic schools of ethical thought are the teleological theories and the deontological theories. (For a more thorough discussion of these theories, see Arcus, 1997.) The teleological approach holds that the morality of a certain behavior is based on the consequences of that behavior. People who subscribe to this approach sometimes are described as consequentialists. Utilitarianism, a well-known example of the teleological theories, judges the rightness of a given action depending on competing outcomes or consequences. Ethical behavior is defined as that which generates the greatest possible benefits for the largest number of people and does the least harm. The utilitarian perspective can be applied either in terms of the direct consequences of a specific action or by considering the outcomes if the action became the general standard for behavior.

The deontological ethical theories assume that there are universal principles that determine the morality of an action. These principles are absolute and unconditional, regardless of the outcomes or consequences of the action taken. Therefore, people who advocate this approach to ethical decision-making may be called non-consequentialists. Arcus (1997) cites Immanuel Kant's duty ethics as an example of deontology. Kant argued, for instance, that parents choose to take care of their children because they have a moral obligation to do so, rather than to reap the benefits of raising healthy, well-adjusted offspring or to avoid the negative consequences of neglecting them.

Both sets of theories have obvious limitations. The teleological approach, for example, assumes that the consequences of individual actions can be anticipated, and ignores the problem of unintended consequences. In addition, teleologists assume no moral responsibility for the minority who may be harmed by actions that benefit the majority. On the other hand, deontologists offer little assistance when it is necessary to choose among competing ethical principles, as is true for many, if not most, ethical dilemmas. Perhaps because of these and other limitations, researchers have attempted to integrate the two approaches to describe how people make moral decisions.

A two-dimensional model developed by Forsyth (1980) is an example of an approach that draws on both teleological and deontological traditions. The model is based on the dimensions of relativism, "the extent to which individuals reject universal moral rules," and idealism, "the extent to which individuals believe that, with the right action, desirable consequences can always be obtained" (Forsyth, pp. 175-176). Forsyth articulated four ethical positions or ideologies that explain why people's ethical judgments differ:

1. Absolutists (low relativism/high idealism) assume that the application of universal moral principles always produces the best possible outcomes.
2. Subjectivists (high relativism/low idealism) reject universal rules and base moral judgments on their own personal perspectives.
3. Exceptionists (low idealism/low relativism) believe that morality is determined by the consequences of the behavior.
4. Situationists (high relativism/high idealism) make moral decisions by considering both universal rules and individual circumstances and situations.

Forsyth's model could be used to examine the issue of academic dishonesty: Is it ever okay to cheat on a test or assignment? Students who take the absolutist position would, of course, say that it is never acceptable to cheat, based on the universal principle of honesty. On the other

hand, subjectivists might decide that cheating is okay because of the personal benefits to be gained (e.g., higher grades). Exceptionists would focus on the consequences of cheating, such as Am I likely to get caught? If I do get caught, how severe are the consequences? Do the potential benefits of cheating outweigh the possible negative consequences? Universal moral principles might persuade situationists that cheating is wrong. On the other hand, circumstances (e.g., everybody else cheats) could convince them that they have to cheat in order to compete on a level playing field.

Historical and Philosophical Perspectives

Ethical professional practice is rooted in the history of public education in the United States, including the growth of vocational and career education, and in the history of the family and consumer sciences profession. Blankenship and Moerchen (1979) noted that, from its beginnings in the late 19th and early 20th centuries, the profession once known as "home economics" has been closely tied to such ethical concerns as the democratic ideal of public education for all, the idea that education should help people to improve their lives, and the desire to improve the quality of education for women, who were at one time excluded from many educational pursuits.

Thomas Jefferson and other early advocates of education for all clearly envisioned that public education would serve the common good by ensuring an educated citizenry, rather than merely provide a private benefit to individual citizens. (See, for example, Hogg, 1999; Miller & Gregson, 1999; *Thomas Jefferson on Politics and Government: Educating the People*, 2001.) Although the idea of public education for everyone is no longer considered revolutionary, the question, "Who is public education designed to serve?", remains a fundamental ethical issue underlying current controversies over school reform. For example, Cookson and Shroff (1997), in a discussion of urban school reform, asserted that "educational justice" is an important goal of public education. The concept of educational justice recognizes that every child, regardless of circumstances of birth or family, has the same right to educational opportunity as every other child. Because public education is part of the "social marketplace," Cookson and Shroff argue that its effectiveness ought to be measured in terms of success in providing education to all citizens. (For a compelling portrait of poor children who have been denied educational justice in America's schools, see Jonathan Kozol's 1991 book, *Savage Inequalities*.)

The growth of family and consumer sciences and other career and technical education programs represents a gradual expansion of educational opportunities, and reflects the belief that education should help people improve their lives. For example, John Dewey, an early proponent of education that is useful and practical, maintained that vocational education should play a reconstructionist role in a democracy, serving to correct, rather than perpetuate, unfair privilege and deprivation (cited in Miller & Gregson, 1999). Thomas (1986) spoke to this same point when she proposed an interventionist view of home economics education that emphasizes reducing barriers and increasing opportunities for economically, socially, or culturally disadvantaged groups. Thomas also recalled, "…the roots of intervention are found in the Lake Placid proceedings where discussions focused on the poor, on educating children and females from urban ghettos, and on assisting immigrants in cultural assimilation" (p. 174).

It is important to recognize the role of federal legislation in the democratization of education that expanded educational opportunities for disenfranchised individuals and groups. Examples include the Morrill Land Grant Act in 1862 (*Land-grant act: History and institutions*, 2007), establishing land-grant universities to serve "ordinary citizens;" the Smith-Hughes Act in

1917 (Hillison & Burge, 1988), that provided the first federal funding for vocational education; Title IX of the Education Amendments in 1972 (*Title IX: Education amendments of 1972*, 2007) and the Education for all Handicapped Children Act in 1975 (U.S. Congress, 1975), which addressed issues of gender equity and disability, respectively; and a variety of other legislative mandates that supported greater educational opportunities for those previously excluded or underserved. Teachers, administrators, parents, civic leaders, and others have contributed to the nation's progress toward educational justice, but federal policy-makers clearly have pointed the way.

In their seminal work, *Home economics: A definition*, Brown and Paolucci (1979) reminded us that professionals do intervene in the lives of those served, and "cannot legitimately maintain the myth of moral neutrality" (p. 23). Brown and Paolucci noted that the family itself is an ethical/moral enterprise with responsibilities to those beyond its boundaries, as well as to its own members. Brown and Paolucci stated, "It would be morally irresponsible to encourage egocentric attitudes and orientations among individual families merely to meet their own needs, and to be selfishly indifferent to the needs of others" (p. 21).

Codes of Ethics

Like other professions, the family and consumer sciences (FCS) profession and the field of public education have established formal codes or standards of behavior to guide the professional practice of their members. A thorough examination of formal codes of ethics for FCS and education professionals is beyond the scope of this article. However, three such codes provide examples of principles that guide the professional behavior of FCS educators:

1. National Education Association (NEA) Code of Ethics of the Education Profession (NEA, 1975).
2. American Association of Family and Consumer Sciences (AAFCS) Code of Ethics (AAFCS, 2003).
3. Association for Career and Technology (ACTE) Code of Ethics (ACTE, 2006).

Each of the documents consists of a preamble and statements of specific ethical principles. The NEA code is the shortest of the three, with 16 statements of guidelines for ethical conduct. The ACTE code identifies 22 specific guidelines and the AAFCS code includes 33. Even a cursory review of these documents reinforces the idea that family and consumer sciences teachers are engaged in an ethical endeavor. The preamble to the NEA code, for example, states:

> The educator, believing in the worth and dignity of each human being, recognizes the supreme importance of the pursuit of truth, devotion to excellence, and the nurture of democratic principles. Essential to these goals is the protection of freedom to learn and to teach and the guarantee of equal educational opportunity for all….The educator recognizes the magnitude of the responsibility inherent in the teaching process. (NEA, 1975, p. 1)

Not surprisingly, a comparison of the NEA, AAFCS, and ACTE documents reveals a number of similarities. It also is clear that each of the codes reinforces certain aspects of professional practice identified in Standard 8. The Standard's call for civic engagement and advocacy is reflected in ethical principles related to professional responsibilities to clients/students and accountability to the community. The importance of continuing professional development is reflected in the theme that professionals must maintain individual professional competence and work to ensure the collective competence of the profession as a whole. Other

unifying themes found in the three codes include guidelines regarding confidentiality, avoiding conflicts of interest, and respect for diversity.

There also are some interesting differences. The AAFCS code, for example, is the only one that includes a section on ethics in research and scholarship, although the other documents do imply the need to utilize current research to ensure professional competence. Although each code emphasizes respect for diversity, only the NEA code prohibits discrimination based on sexual orientation – a noteworthy difference, given that the NEA code was developed in 1975.

Another major difference in the three documents is that all of the 33 specific statements of ethical principles in the AAFCS code and the 22 comparable statements in the ACTE code emphasize what professionals *should do*. The NEA document, on the other hand, emphasizes what educators *should not do.* Fifteen of the 16 statements in the NEA code are of the "shall not" variety, and some are quite specific, for example, "The educator shall not knowingly make false or malicious statements about a colleague" (NEA, 1975, p. 2).

Couch (2005) noted that formal statements of ethical principles, sometimes focused primarily on compliance, offer limited guidance for "doing the right thing" in the broader sense. The examples discussed here demonstrate that professional codes of ethics are useful and necessary, but that legalistic adherence to such codes does not satisfy one's ethical obligations, that is, it does not guarantee that the educator is engaging in ethical professional practice. As with the law, ethical behavior may involve doing more than what a code of ethics requires and/or less than what it allows. For example, ethical principles prohibit a romantic relationship between a teacher and a student, even if a specific code of ethics does not. Perhaps this is why Craig (1996) warned that, while professional codes and other formal statements of ethical principles provide good starting points for guiding professional practice, "the greatest possible danger may come from unquestioning acceptance of any code, standard or set of practices" (p. 150).

Ethical Issues in Public Education

Many current educational issues are intertwined with the ethical professional practice of teachers. As stated earlier, educators facilitate students' access to knowledge and the decisions teachers make can have long-term and even life-changing impacts on students and their families. Unethical decisions and actions may result in some students being marginalized; therefore, educational professionalism demands a capacity that we will call ethical objectivity. Objectivity, as defined by *Webster's Ninth New Collegiate Dictionary* (Mish, 1988), is treating or dealing with facts without distortion by personal feelings or prejudices. Ethical objectivity requires decisions and actions in ethical situations be made on facts without distortion from personal feelings or prejudices and may require education professionals to confront their own opposing personal values or biases.

A current educational issue confronting teachers and schools which requires ethical objectivity is society's changing family structures. Family and consumer sciences teachers, especially, need to exercise ethical objectivity when teaching content related to families and family structures. Further, they have an ethical charge to be an advocate for all families.

The American family has changed significantly in the last 20 years and includes diverse structures different from the traditional family, such as dual income families, stepfamilies, hands-on fathers**,** families headed by gay and lesbian parents, and adoptive families. In fact, the 2000 Census recorded 24,722 different household combinations of the more than 105 million existing United States households (Hobbs, 2005). Same-sex headed families (Dingfelder, 2005) illustrate the need for ethical objectivity from family and consumer sciences educators. The

national media and legislative attention given to gay marriage has polarized some communities resulting in very strong opinions toward gay marriage and gay and lesbian families. However, educators must realize that even though individuals may have conflict with gay and lesbian family systems because of personal values and/or religious beliefs, educators are ethically and legally responsible for ensuring the educational needs and personal safety of all children.

The family and consumer sciences profession reinforced this ethical charge at the 2006 Annual Meeting of the American Association of Family and Consumer Sciences (AAFCS) by passing a non-discrimination resolution:

> Whereas AAFCS supports diversity and has consistently advocated to end discrimination, and
>
> Whereas AAFCS is a professional society rooted in scientific principles and knowledge generated by research,
>
> Therefore be it resolved that the American Association of Family and Consumer Sciences does not tolerate discrimination with respect to an individual's or group's race, ethnicity, gender, religion, sexual orientation, marital status, age or disability, and
>
> Therefore be it resolved that the American Association of Family and Consumer Sciences endorses the concept that all persons, regardless of individual's or group's race, ethnicity, gender, religion, sexual orientation, marital status, age or disability are entitled to equal protection and privilege under the law. (AAFCS, 2006, n.p.)

As school safety remains in the forefront of educational issues, teachers must recognize their ethical responsibility includes creating a safe learning environment for all students. While there is some evidence that school safety has improved (*Indicators of school crime and safety*, 2007), the issue remains a great concern because a single act of school violence can disrupt the educative process for many students. In the 2005-2006 school year, the *Indicators of school crime and safety* reported that 78% of schools experienced one or more violent incidents of crime and 17% experienced one or more serious violent incidents. Additionally, 24% of public schools reported that student bullying was a daily or weekly problem. With regard to other discipline problems occurring at least once a week, 18% of public school principals reported student acts of disrespect for teachers, 9% reported student verbal abuse of teachers, 3% reported daily or weekly occurrences of racial/ethnic tensions among students, and 2% reported widespread disorder in classrooms.

Bullying and other forms of harassment are of particular concern for many students. Olweus (1993) identified three essential elements of bullying behavior: (a) the behavior is aggressive and negative, (b) the behavior is carried out repeatedly, and (c) the behavior occurs in a relationship where there is an imbalance of power between the parties involved. Bullying is further defined with the identification of a variety of behaviors. The first subtype is direct, physical aggression, and the second subtype is indirect behavior such as name calling, social exclusion, or rejection. Direct bullying often takes the form of overt, physical contact in which the victim is openly attacked. Indirect bullying often takes the form of social isolation and intentional exclusion from activities (Olweus).

Educators have an ethical responsibility to confront direct and indirect bullying situations in the classroom and school hallways because often the victims do not possess the power to resolve the situation. Further, it is critical for educators to help students recognize bullying and harassing behaviors, such as derogatory or offensive language, as students may not even be aware of the meanings of their words and actions. For example, currently, a popular phrase used by adolescents is "that's so gay" or "you're so gay". According to the 2005 National School

Climate Survey (Kosciw & Diaz, 2006), phrases such as "that's so gay" or "you're so gay" really mean stupid or worthless. Unless confronted, these phrases become the accepted language and can eventually lead to the use of more derogatory or offensive language such "faggot" or "dyke".

Enhancing Ethical Behaviors

With the aforementioned issues, ethical objectivity can be enhanced through the awareness of the impact that discrimination and derogatory language can have on individuals and families. Discussing problem-solving scenarios and case studies in teacher preparation courses can help future teachers formulate solutions to potential classroom and school situations. An example is the following case study used by Alexander in a teaching methods course:

> You have a very outgoing student in class who likes to tell jokes and make the other students laugh. While the student is often very funny, the joke today contains an offensive racial slur. How do you handle this classroom situation?

Once there is ample opportunity to discuss this situation and how it should be appropriately addressed, the scenario should be changed to indicate that the joke used sexist language and then changed again to discuss a joke that referred to sexuality with derogatory language. When this case study was applied in previous class situations with teacher candidates, it was interesting to observe the level of acceptance for the various scenarios. The teacher candidates unanimously agreed that a racial slur is unacceptable and should never be tolerated by students; however, there were varying degrees of acceptance with sexist language and the language referring to sexuality. This led to further discussion on questions such as: (a) Do we tolerate derogatory language more for some groups than others? (b) Is derogatory language ever appropriate? (c) What are the affects of language and jokes using these slurs? (d) What happens when we are silent or laugh? and (e) What classroom rules and guidelines should we have in place to promote a safe environment for all students? Discussion of similar types of scenarios and case studies can help teacher candidates develop more objectivity and stronger advocacy for all types of individuals and families.

Advocacy necessitates reading and understanding of the research related to current issues confronting individuals and families. Education professionals should routinely familiarize themselves with current literature by reading high-quality, unbiased research. Litman (2007) explains that quality research seeks the truth based upon all available information; whereas, poor research predetermines a conclusion and identifies facts, often taken out of context, to support the conclusion. Quality research should empower the reader to reach their own conclusions by including:

1. A well-defined research question.
2. Description of the context and existing information about an issue.
3. Consideration of various perspectives.
4. Presentation of evidence, with data and analysis in a format that can be replicated by others.
5. Discussion of critical assumptions, contrary findings, and alternative interpretations.
6. Cautious conclusions and discussion of their implications.
7. Adequate references, including original sources, alternative perspectives, and criticism (Litman, p. 2).

Teacher educators can prepare teacher candidates to be good consumers of research in teacher preparation courses by introducing and critiquing research studies. Questions that determine quality of the studies can be derived from the above list of characteristics and applied

to current educational research. In-depth analysis of existing research will help teacher candidates develop conclusions on the value of research outcomes and applications to support their classroom practice and work with individuals and families. Exposure to a variety of research methods and outcomes may even encourage the classroom teacher to more actively engage in action research, a beneficial professional development behavior.

In discussing the development of ethical professional practice, it is imperative to include the issue of academic integrity. The Center for Academic Integrity (CAI) (1999) defines academic integrity "as a commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility. From these values, flow principles of behavior that enable academic communities to translate ideals to action" (p. 4).

Research conducted by CAI (1999) and McCabe (2005) provides a shocking picture of what is happening on the nation's university campuses in regard to academic integrity. McCabe surveyed nearly 50,000 undergraduates on more than 60 campuses and found that 70% of students admitted to some cheating and nearly 25% admitted to serious cheating in the last year. On written assignments, nearly 50% admitted to one or more instances of serious cheating. Teacher candidates, as college students, are faced with issues surrounding academic integrity on a regular basis, which provides a very relevant context for studying ethics as a part of family and consumer sciences teacher education. For example, academic integrity could be used as a basis for discussing (a) the overall topic of ethical professional practice, (b) the teacher candidates' individual beliefs about particular ethical issues (in this case academic integrity), (c) the responsibilities of future teachers to practice ethical behavior and to serve as role models for their future students, and (d) how teacher candidates will promote academic integrity in their future classrooms.

High school students appear to be cheating nearly as often as undergraduates. In an annual survey on the Ethics of American Youth, conducted in 2004 by the Josephson Institute on Ethics, 62% of the high school students surveyed admitted they cheated on exams and two-thirds agreed that "in the real world, successful people do what they have to do to win, even if others consider it cheating" (*Ethics of American youth*, 2004, p. 5). Still, a large majority of the students stated that ethics and good character are very important and reported high self-appraisals of their own character. Michael Josephson, President of the Josephson Institute said:

> Though the Report Card on the Integrity of American Youth continues to contain failing grades, there is reason for hope. For the first time in 12 years, the cheating and theft rates have actually dipped downward and the stated devotion to ethics is the strongest we've seen…. Still, it can't be comforting to know that the majority of the next generation of police officers, politicians, accountants, lawyers, doctors, nuclear inspectors, and journalists are entering the workforce as unrepentant cheaters. (*Ethics of American youth*, p. 2)

Although these statistics seem unbelievable, there are strategies available to increase academic integrity at the secondary and postsecondary levels. First, CAI (1999) reports that academic honor codes can effectively reduce cheating. Results of surveys conducted in 1990, 1995, and 1999, with over 12,000 students on 48 different university campuses, indicated the impact of honor codes and student involvement in the control of academic dishonesty. Serious test cheating on campuses with honor codes was typically one third to one half lower than the level on campuses that did not have honor codes. Further, the level of serious cheating on written assignments was one fourth to one third lower (McCabe, 2005).

A second solution can be to report students for academic misconduct when cheating is suspected. Cheating behaviors with students will continue if in their minds the consequences are minimal. In fact, faculties resist taking action against suspected cheaters. Of the almost 10,000 faculty surveyed, 44% indicated that they were aware of students cheating in their courses but took no action to report the incidences to the appropriate campus authority. Additionally, student respondents indicated that cheating was higher in courses taught by faculty who consistently ignored the problem (McCabe, 2005).

Besides having a zero tolerance for cheating policy for each course, which is clearly shared with students, a third strategy is to spend time teaching students about academic integrity. Mini lessons at the beginning of each course could clarify many of the gray areas that students misunderstand. If students are not taught the correct behavior and the faculty assumes that students should know better, then faculty, too, have erred and should be held accountable for the missed opportunities to correct inappropriate behaviors.

Increased development and use of technology contributes to academic misconduct, especially with questions about the acceptable use of the Internet. McCabe (2005) indicated that cut and paste plagiarism is acceptable in the minds of students. The majority of students surveyed (77%) believed that it was not a very serious issue to take several sentences or bits of information without citing from various Web sites and reconstruct them into a paper submitted as their work (McCabe). Current technology provides information that is readily available at students' fingertips making plagiarism too easy and too inviting in comparison to taking the time to locate resources, conduct adequate research, and write or create the well crafted assignment.

Additional Classroom Strategies

The following strategies promote the discussion and development of ethical professional practice and are appropriate for family and consumer sciences teacher education programs, as well as for secondary family and consumer sciences classrooms. As more secondary programs adopt the Career Cluster framework, career preparation, which includes knowledge and skill development in professionalism and ethical behaviors, will be emphasized.

Technology has created many related sub-issues of which family and consumer sciences teachers need to be aware, for example the ethical use of technology to produce, purchase, and deliver consumer goods and services and the impact of technology on individuals and families. The PBS Teachers Web site (http://www.pbs.org/teachers/) is a good source of information on hundreds of ideas for classroom activities. The following are some examples of interdisciplinary learning activities focused on technology that could be used with family and consumer sciences teacher education students. The first, *Genetically modified foods: From the lab to the dinner table* (Fetters, n.d.), focuses on the production and consumption of genetically modified foods. Lesson directions and online resources are provided. The second, *A penny for your thoughts, movies, or music?* (Greeves, n.d.), is presented in similar format (directions and online resources) and focuses on fair use of the Internet, especially for downloading music and entertainment. The third, *The introduction and diffusion of household technology* (The First Measured Century, n.d.), has students research and describe the development of common household items such as electricity, refrigeration, and cell phones, during the 20th Century. The last, *18 ways to make a baby* (NOVA, n.d.), is an examination of ethical, legal, and social implications of in vitro fertilization. The lesson also promotes discussion of issues related to post-menopausal births.

An effective instructional strategy for introducing ethical professional practice is the movie, *The emperor's club* (Hoffman, 2002), available on video and DVD (PG-13). The film is

the story of a high school student and son of a powerful United States Senator, who cheats, and of the dedicated teacher who overlooks it and in the process, allows the student to gain an unfair advantage over his classmates. Years later, when the former student is campaigning for his father's Senate seat, the teacher, played by Kevin Kline, is forced to examine the consequences of his actions. The film is based on a short story, "The Palace Thief," by Ethan Canin (1994) that could be used as a companion reading assignment. An examination of the characters in the movie and/or short story would also enhance perspective-taking skills. Discussions could be led from the students' perspectives as well as from the teacher's, and then the roles could be switched.

A more in-depth reading assignment is John C. Maxwell's *There's no such thing as "business" ethics* (2003). Maxwell proposes that there is only one rule for making decisions—The Golden Rule. Although the book is written for the business world, the principle can be applied to education. Maxwell believes that ethical decision making has been ruined with situational ethics, which has allowed different ethical standards to be applied in different situations. These changing standards have resulted in many people making unethical decisions which could have circumvented by regularly applying the Golden Rule. Maxwell states, "the Golden Rule can become your North Star when it comes to ethical navigation" because asking yourself how you would like to be treated in a situation "is an integrity guideline for *any* situation" (p. 21). Additionally, there is only one rule for everyone and most religions have a variation of the Golden Rule. This book is an easy, quick read, and each chapter is followed with thought-provoking discussion questions. The reading level is appropriate for secondary and postsecondary students.

Another learning strategy is *Where do you draw the line? An ethics game*, by R. Garry Shirts (1977). The game is designed for up to five groups of participants to make ethical judgments about the behavior of people described in a variety of situations. In addition to indicating its own opinion, each group also indicates how it believes most businesspersons and most members of society would respond to the same situations. The discussion of situations is directed toward discovering the assumptions and the implications of the assumptions which were used by the groups to make their judgments. The game can be played in 50 minutes and can be a springboard for more in-depth discussions and learning activities.

Summary

In summary, the *National Standards for Teachers of Family and Consumer Sciences* remind us that we are engaged in an ethical enterprise, and that we have significant moral obligations to our students and their families, our profession, the communities in which we practice, and the larger society. Laster (1997) observed that, even with a history of concern for ethical practice, the family and consumer sciences education community has been ambivalent, inconsistent, and sometimes superficial in addressing ethical concerns. To be engaged in ethical professional practice, as required by Standard 8, we cannot opt for moral neutrality. Instead, we must recognize the moral nature of our work and accept the responsibility to help individuals develop the capacity to address the moral issues they encounter in their own lives. Ultimately, ethical professional practice is about how we fulfill our responsibilities to those we serve.

Brief Annotated List of Suggested Resources

Canin, E. (1994). *The palace thief*. New York: Picador USA.

This short story is the basis for the movie, *The Emperor's Club* (2002). The story is about a high school student and son of a powerful United States Senator, who cheats, and of the dedicated teacher who overlooks it and in the process, allows the student to gain unfair advantage over his classmates. Years later, when the former student is campaigning for his father's Senate seat, the teacher is forced to examine the consequences of his actions. The story could be used as a companion reading assignment to the movie.

Fetters, C. (n.d.). *Genetically modified foods: From the lab to the dinner table*. NOW. PBS Teachers. Retrieved June 13, 2009, from http://www.pbs.org/teachers/search/results.html?q=genetically+modified+foods

This lesson focuses on the pros and cons of producing and eating genetically modified foods. Directions for the lesson and online resources are provided. This resource is appropriate for secondary and postsecondary students.

Greeves, L. (n.d.). *A penny for your thoughts, movies, or music?* NewsHourExtra. PBS Teachers. Retrieved June 13, 2009, from http://www.pbs.org/newshour/extra/teachers/lessonplans/socialstudies/downloading.html

This lesson focuses on fair use of resources and information from the Internet. Copyright laws are addressed. Directions for the lesson and online resources are provided. This resource is appropriate for secondary and postsecondary students.

Hoffman, M. (Director). (2002). *The emperor's club* [Motion picture]. Los Angeles: Universal Pictures.

The film is the story of a high school student and son of a powerful United States Senator, who cheats, and of the dedicated teacher who overlooks it and in the process, allows the student to gain unfair advantage over his classmates. Years later, when the former student is campaigning for his father's Senate seat, the teacher, played by Kevin Kline, is forced to examine the consequences of his actions. The movie is rated PG 13 and would be appropriate for secondary and postsecondary students.

Litman, T. (2007). *Evaluating research quality: Guidelines for scholarship*. Victoria Transport Policy Institute. Retrieved July 26, 2008, from http://www.vtpi.org/resqual.pdf

This paper discusses the importance of good research and provides a list of characteristics of good research. It also discusses the probable causes of research bias and provides guidelines for evaluating research including the quality of data. Finally, the paper describes examples of poor quality research. This resource is appropriate for the postsecondary level student.

Maxwell, J. C. (2003). *There's no such thing as "business" ethics*. United States: Warner Books.
Although the book is written for the business world, the principle of "The Golden Rule" can be applied to education. Maxwell believes that ethical decision making has been ruined with situational ethics, which has allowed different ethical standards to be applied in different situations. These changing standards have resulted in many people making unethical decisions which could have circumvented by regularly applying the Golden Rule. This book is an easy, quick read, and each chapter is followed with thought provoking discussion questions. The reading level is appropriate for secondary and postsecondary students.

NOVA. (n.d.). *18 ways to make a baby*. PBS Teachers. Retrieved June 13, 2009, from http://www.pbs.org/wgbh/nova/teachers/activities/2811_baby.html
This lesson examines the ethical, legal, and social implications of in vitro fertilization. It also discussed the issues surrounding post-menopausal women giving birth. Directions for the lesson and online resources are provided. This resource is appropriate for the secondary and postsecondary students.

Shirts, R. G. (1977). *Where do you draw the line? An ethics game*. Del Mar, CA: Simulation Training Systems. Retrieved July 26, 2008, from http://www.stsintl.com
This learning game is designed for up to five groups of participants to make ethical judgments about the behavior of people described in a variety of situations. The game can be played in 50 minutes and can be a springboard for more in-depth discussions and learning activities. It is appropriate for secondary and postsecondary students.

The First Measured Century (n.d.). *The introduction and diffusion of household technology.* PBS Teachers. Retrieved June 13, 2009, from http://www.pbs.org/fmc/lessons/lesson5.htm.
In this lesson, students research and develop a matrix describing the introduction and spread of common household items such as electricity, refrigeration, and cell phones, from 1900 to 2000 in the United States. Directions for the lesson and online resources are provided. This resource is appropriate for secondary and postsecondary students.

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