Curriculum Development Standard for Family and Consumer Sciences Teachers

Bettye P. Smith
The University of Georgia

This paper reviews Standard 5, Curriculum Development, of the National Standards for Teachers of Family and Consumer Sciences (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004). This paper explains the need to develop curriculum based on the three major considerations for curriculum planning: content, context, and learner. The technical (scientific) and non-technical (non-scientific/practical) approaches to curriculum planning are highlighted. Assessment strategies for the Standard are reviewed, and a brief annotated list of suggested resources is included.

The national standard for beginning teachers concerning curriculum development supports the overall mission of the Family and Consumer Sciences Education Association (FCSEA). That is, FCSEA, the professional organization for administrators, teacher educators, and teachers works to improve the quality of family and consumer sciences instruction and to broaden the scope of the curriculum (Family and Consumer Sciences Education, 2005) by developing, integrating, and providing practical knowledge about everyday life that can be used to make sound decisions.

Standard 5 of the *National Standards for Teachers of Family and Consumer Sciences* (National Association of Teacher Educators for Family and Consumer Sciences [NATEFACS], 2004) provides a model of excellence for the beginning FCS teacher and states, "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." The *Standards* are written and presented in a succinct format and consensus-oriented approach. Therefore, a set of "Expectation Statements" that described key knowledge, skills, attitudes, and/or behaviors related to each Standard was developed to help teacher educators and others in assessing candidates' progress toward and attainment of them (Fox & Klemme, 2009). The four Expectation Statements for beginning teachers for Standard 5 are 1) develop and justify curricular choices that meet the needs of all learners; 2) implement curricula that address recurring concerns and evolving family, consumer, career, and community issues; 3) design curricula that reflect the integrative nature of family and consumer sciences content; and 4) integrate family and consumer sciences content and grade level core academic standards (Klemme & Fox, 2009). The first expectation, develop and justify curricular choices that meet the needs of all learners, is the focus of this paper.

There is a plethora of professional literature on curriculum; according to Ornstein and Hunkins (2007), many of the publications use the terms "development" and "plan" in the title. Although differences exist between curriculum development and curriculum planning, for the purpose of this paper and the beginning teacher, the author will use curriculum planning more extensively than curriculum development. An examination of curriculum and planning will follow. Since the Standards were written for beginning teachers, curriculum planning was used as it indicates fundamental knowledge that is received in initial classes.

Posner and Rudnitsky (2001) stated that curriculum refers to what is taught in school or what is intended to be learned. For Posner and Rudnitsky, curriculum represented a set of intentions, a set of intended learning outcomes. Finch and Crunkilton (1999) defined curriculum as the sum of the learning activities and experiences that a student has under the auspices or direction of the school. Sowell (2004) gleaned from different sources and presented several definitions of curriculum which included: the cumulative tradition of organized knowledge; a planned learning environment; an instructional plan; instructional ends or outcomes; and all of the courses, collectively, offered in a school, college, or in a particular subject. Ultimately, Sowell defined curriculum as what is taught including both intended and unintended information, skills, and attitudes that are communicated to students in schools. Although both Posner and Rudnitsky and Sowell's thoughts on the meaning of curriculum are similar (what is taught), curriculum as defined by Sowell is chosen for this paper in the context of the expectation statement for Standard 5, develop and justify curricular choices that meet the needs of all learners.

Planning is a highly complex process (Posner & Rudnitsky, 2001); however, it is important, especially to beginning teachers. Freiberg and Driscoll (2005) viewed planning as a four-step process that included visualizing, guiding, managing, and decision making. For the purpose of this paper, the author defines planning as a process of determining and outlining events (concepts, objective, learning activities, and evaluation) for a designated time period (minutes and/or daily, weekly, unit, or yearly).

Some authorities (Hass & Parkay, 1993; Posner & Rudnitsky, 2001) have combined the two concepts, curriculum and planning, and achieved the phrase/concept curriculum planning. Curriculum planning is the process of gathering, sorting, selecting, balancing, and synthesizing relevant information from many sources in order to design experiences that help learners in attaining the goals of the curriculum (Hass & Parkay, 1993). Furthermore, curriculum planning entails selection and organization of a set of intended learning outcomes. In curriculum planning, the selection of intended learning outcomes is made more rational when they are based on educational goals (Posner & Rudnitsky, 2001). Educational goals are established based on learners and their needs and interest.

Curriculum Planning and Justification of Choices

Decisions for planning the curriculum to meet the needs of all learners are made based on three considerations: the students' previous learning experiences (learners), the content received from curriculum guides and textbooks (content), and the context or conditions in which the instruction will take place (context). It is recommended that teachers consider the *learners* to be taught, the *content* of their teaching, and the *context* of their teaching when planning the curriculum (Chamberlain & Cummings, 2003; Freiberg & Driscoll, 2005; Hitch & Youatt, 2002; Posner & Rudnitsky, 2001). Each of the three considerations will be briefly highlighted in the following paragraphs.

Learners

The students today are tomorrow's adults; they are the human capital upon which America must build its future. However, teaching in the 21st century is challenging (Ornstein & Hunkins, 2007). Students today are distracted by their world of video and violence; they have television and technology (Freiberg & Driscoll, 2005) to entertain them and accompany their time. Therefore, it is necessary to consider carefully the maturity, needs, interests, abilities, and

knowledge of students (Posner & Rudnitsky, 2001). Furthermore, today's students come from varied family backgrounds, structures, cultures, and bring to classrooms a myriad of experiences. Based on the last U.S. Census, it has been noted that if current trends continue, students of color will comprise about 48% of the student population in the year 2020 (Banks, 2008). This statistic is significant and sometimes alarming for beginning teachers as they enter American's classrooms. Yet, 58% of family and consumer sciences teacher education programs do not offer a course in multicultural education (Alexander, West, & Ebelhar, 2007). Students' enrollment and participation are important to the success of any program, especially so in programs such as family and consumer sciences education that often are not required for graduation. Students must see relevance of the program to their lives; this is often the principal challenge for beginning family and consumer sciences teachers.

Beginning family and consumer sciences teachers have a plethora of theories and concepts from professional education classes to drawn from while managing the dynamics of the classroom. However, the challenge is being able to connect theory to practice. Therefore, it is necessary to pay special attention to the three major considerations for making curricular choices. The three considerations are learners (Freiberg & Driscoll, 2005; Hitch & Youatt, 2002), content, and context (Freiberg & Driscoll, 2005; Posner & Rudnitsky, 2001). Beginning teachers are encouraged to apply educational theories and models to actual classroom practice to help them justify curricular choices and meet the needs of learners.

Content

The content is the pool of information, skills, and values that students are expected to learn, which is often referred to as subject matter. The content can be structured with specific goals and objectives, teaching and learning activities, and materials found in curriculum frameworks developed by states and/or school districts. The structured content parallels Sowell's definition of intended information, skills, and attitudes communicated to students. However, the content can also be unstructured based on the individuality of teachers and needs of learners which is consistent with Sowell's definition of untended information communicated to students. A committee for the national standards for students identified 16 subject matter (discipline content) standard areas for family and consumer sciences (NASAFACS, 2008).

Previously, the family and consumer sciences curriculum was organized around family-oriented or career-oriented programs (Vail, 1998). Currently, family and consumer sciences curriculum at the secondary level is organized and delivered around programs of study also known as career pathways (Scott & Sarkees-Wircenski, 2008). A career pathway is a coherent, articulated sequence of rigorous academic and career/technical courses, commencing in the ninth grade and leading to an associate degree, baccalaureate degree and beyond, an industry recognized certificate, and/or licensure (Center for Occupational Research and Development [CORD], 2010). The concept of career pathways is rooted in strengthening the education of all students and the career planning process; the desired outcomes are greater student achievement and preparation for the workforce (ranging from entry level to professional) or postsecondary education. Career pathways in family and consumer sciences are designed to allow students to mold their learning toward a specific career focus (Georgia Department of Education, 2006a). Career pathways can be found in Arizona, California, Georgia and Indiana (Kelly & Filbeck, 2009) as well as many other states. However, curriculum frameworks and content standards continue to be developed based on the *National Standards in Family and Consumer Sciences* and published on the state department's website. These state curriculum frameworks and content

standards are an excellent resource for a pool of information for beginning teachers and usually can be accessed via the state's department of education website.

Context

Context deals with the setting or environment. The context for teaching may include physical environments such as the state, school district, school, or classroom. Not only does the context for teaching include the physical environment, but it emphasizes the general environment such as school reform and school accountability as seen in *No Child Left Behind Act of 2001* (NCLB). Efforts responding to educational reform are currently focused around state-mandated standards of student achievement as well as proposed national standards (Freiberg & Driscoll, 2005). The National Association of State Administrators of Family and Consumer Sciences (NASAFACS, 1998) responded to educational reforms such as *National Education Goals: Building a Nation of Learners* and developed a set of discipline content standards for 16 areas of study in family and consumer sciences (Hetherly, 2000). Additionally, there are some factors that influence a school's efforts to improve outcomes that are embedded in the context of the classroom itself including the number of students and the experience of the teacher. Therefore, beginning teachers in family and consumer sciences have curriculum standards (state, and local depending on the district) to consider as well as the physical setting of the community (rural, suburban, or urban area), school (size, program/course offerings), and classroom features (such as size, location, arrangement, and available resources).

Types of Curricular Approaches, Technical and Non-technical

A teacher must have a familiarity with current approaches to the subject matter to effectively plan a course (Posner & Rudnitsky, 2001). A curriculum approach reflects a holistic position. It expresses a viewpoint about the development and design of curriculum, the role of the learner, teachers, and curriculum specialist in planning curriculum, the goals and objectives of the curriculum, and the important issues that need to be examined (Ornstein & Hunkins, 2007). Two basic approaches to curricular development have been identified, technical and non-technical. An explanation of each curricular approach follows.

Technical Approach

The technical approach is objective and processes are expected to be rational and systematic. In the technical approach, teachers decide what the intended outcomes of learning should be. Thereby, in family and consumer sciences, the traditional technical approach involves teaching students expert ways to perform household tasks such as food preparation and clothing construction. The technical approach curriculum is applicable in a variety of classroom situations. It (technical approach) focuses on a product in a teacher-centered classroom, where students listen to lectures, memorize facts, master skills, and take tests.

Historically, the technical approach to curriculum development has been used in family and consumer sciences when implementing what is known as the concept-based curriculum and the competency-based curriculum (American Home Economics Association, 1989). The concept-based curriculum was popular in family and consumer sciences during the 1960s and 1970s. The concept-based curriculum is the development of units of instruction around concepts. A concept is an idea that is timeless, abstract, broad, and can be shown through a variety of examples (Erickson, 2002). On the other hand, the competency-based approach places emphases on learner outcomes. The competency-based approach curriculum measures what learners have

learned as opposed to what instructors think they have taught. Establishing course objectives, and selecting learning experience and resources are the criteria for evaluating learning (Blankenship & Moerchen, 1979). Therefore, the emphasis of competency-based education in FCS programs is placed on analyzing what persons actually do in particular job roles, specifically the use of task analysis. The competency-based curriculum became popular in family and consumer sciences after the passing of the 1963 Vocational Education Act that promoted occupational education.

Non-technical Approach

A non-technical approach is often used when the major source of curriculum content is the needs and interests of students or needs of society and culture; intended learning outcomes are not stated at the outset. The non-technical approach is favored by educators with a subjective interpretation of reality because it allows them to interact with students and content to develop their own realities (Ornstein & Hunkins, 2007). This approach relies heavily on teachers as the major source of curriculum knowledge because they know their students and teaching contexts. During the last two decades, the family and consumer sciences curriculum has been moving away from the traditional technical approach toward the adoption of the non-technical approach due in part to the series of publications by Marjorie Brown and those she coauthored with Beatrice Paolucci (1978, 1979, 1980). The non-technical approach to curriculum development is seen in family and consumer sciences in the critical science curriculum (practical problem-based).

The critical science approach (practical problem-based) is the process of asking questions and finding answers; it helps students learn to think, reason, reflect and take action through the study of recurring, practical problems. Perennial practical problems are the recurring concerns of families throughout each generation, but changing contextual factors require rethinking what would be best to do (Laster, 2008). For example, what should I do to nourish myself and my family and what should be done to discipline my children are perennial practical problems. However, the changing developmental stages of children and other situational factors require parents to think differently about actions to take for both of the questions posed. The process of asking such questions and finding their answers requires an approach that is process oriented, which means that for students, the process of studying questions and finding answers is as important as the answers. The uniqueness of this approach comes from the questions asked. For this perspective, content develops in response to the questions asked. The non-technical approach (critical science) is very different from the traditional technical (how-to) perspective. The critical science perspective is problem-based and focused on practical perennial problems that families encounter. On the other hand, the traditional technical perspective shared expert ways of completing tasks. The non-technical approach has promoted changes in the way family and consumer sciences educators view, conceptualize, and deliver the subject matter.

Curriculum Development in FCS

The process for curriculum planning and development should be carefully considered. Consequently, guidelines for developing curriculum in family and consumer sciences are highlighted in several documents sponsored by professional organizations. More than two decades ago (1986), the former *Journal of Vocational Home Economics Education* (currently the *Journal of Family and Consumer Sciences Education*) published an issue on curriculum development. Three years later, 1989, the American Association of Family and Consumer

Sciences (formerly American Home Economics Association) published *Home Economics Concepts: A Base for Curriculum Development*. Each publication includes articles and information on the technical approach (concept-based, competency-based) and non-technical approach (practical problem-based/critical science) to curriculum development. Several years later, a chapter in the ASCD Curriculum Handbook entitled *Family and Consumer Sciences Curriculum Guidelines* was published and focused strictly on the non-technical approach (critical science perspective) to curriculum development (Redick, Vail, Smith, Thomas, Copa, Mileham, Laster, Fedje, Johnson, & Alexander, 1998). Whatever approach to curriculum development a teacher chooses to use based on content, learner, and context (educational setting), there are some suggested guidelines to consider.

It is clear that the profession has been very active in proposing guidelines and providing information on curriculum development. There are four factors included in the suggested curriculum development process as outlined by Chamberlain and Cummings (2003). These factors include drawing implications from data gathered, planning, implementing the plan, and assessing. These four factors are consistent with the three specific actions delineated by Freiberg and Driscoll (2005) that all teachers perform, which are plan, deliver, and evaluate. The following paragraphs will describe in detail each of the four factors as stated by Chamberlain and Cummings (2003).

Drawing Implications

Implications for the curriculum are drawn from data gathered about and from the learners, subject-matter trends, and context (community characteristics). Gathering data can take place in a variety of ways (Chamberlain & Cummings, 2003; Finch & Crunkilton, 1999). However, after data are gathered, the teacher will make decisions about teaching based on that data. As the characteristics of the learners, subject matter, and context change – the teacher needs to be aware and make different decisions based on the changes.

Planning

The actual planning process is crucial for teachers. Based on data gathered, a program of study is determined. For purposes of this paper, a program of study is the overall plan for instruction in a program. Also, for this paper, a program is a career pathway in family and consumer sciences. A program of study is likened to a detailed blueprint which a builder follows to construct a building; a comprehensive plan is devised by the instructor and followed to keep the entire program operating as planned. There are a number of acceptable components that can be included in the program of study. In this paper, the program outline (see Table 1) and course outline (see Table 2) will be described. The program outline is a list of and description of each course in a program (career pathway) that a teacher is responsible for teaching. The course outline is a list of suggested units of instruction for the courses taught in the career pathway.

Table 1

Program of Study for Nutrition and Food Science Career Pathway

Courses in the Pathway	Description of Course
Food, Nutrition, and Wellness	An essential course in understanding nutritional needs and food choices for optimal health of individuals across the lifespan.

	Interrelationships with wellness are explored. Leads to the advanced nutrition pathway and develops a knowledge base and the skills necessary to select among alternatives in the marketplace, with an emphasis on nutrient content, development of chronic diseases, and food safety.
Food and Nutrition Through the Lifespan	An advanced course in food and nutrition that addresses the variation in nutritional needs at specific stages of the human life cycle: lactation, infancy, childhood, adolescence, and adulthood including old age. The most common nutritional concerns, their relationship to food choices and health status and strategies to enhance well-being at each stage of the lifecycle are emphasized. Provides knowledge for real life and offers students a pathway into dietetics, consumer foods, and nutrition science careers with additional education at the post-secondary level.
Food and Science	Integrates many branches of science and relies on the application of the rapid advances in technology to expand and improve the food supply. Students will evaluate the effects of processing, preparation, and storage on the quality, safety, wholesomeness, and nutritive value of foods. Building on information learned in Nutrition and Wellness and Chemistry, this course illustrates scientific principles in an applied context, exposing students to the wonders of the scientific world. Careers will be explored.

Note: Description obtained from Georgia Department of Education.

The establishment of career pathways facilitated the planning and development of curriculum for beginning teachers; usually schools or family and consumer sciences departments have selected a career pathway to implement. In this paper, a career pathway in Foods and Nutrition will be used to illustrate the planning process. In Georgia, the Foods and Nutrition pathway is entitled *Nutrition and Food Science*. Career pathways in Foods and Nutrition can be found on family and consumer sciences websites in several states; sometimes the name is stated differently, but the concept is the same. A description of each course in the Georgia *Nutrition and Food Science* career pathway can be found in Table 1.

For beginning teachers to plan the program of study, one should start with listing all courses in the career pathway taught. Next, provide a detailed description of each course (see Table 1). At this point, a beginning teacher should be able to visualize the family and consumer sciences program (career pathway) for implementation. A course outline contains the titles for the units of instruction in a given course, any course in the career pathway. To create the course outline as in Table 2, select a course in the career pathway and then list the content, grouping like content into units of instruction. A unit of instruction is one major concept within a content area or given course such as nutrients, food guide, meal planning, and/or purchasing. A unit of instruction allows the teacher to teach with a sense of direction. A unit of instruction can include the title of unit, goal/s, specific objectives, scope (topics to be taught) and sequence (estimated time allotment), learning activities (for teacher and student), assessment/evaluation (traditional and alternative). The unit of instruction is not intended to be absolute, but rather a guide for

teachers to use. In fact, a unit of instruction can be used as a model for teachers to further develop a given course (with several units of instruction) or courses (program of study) in family and consumer sciences. Therefore, teachers may elect to modify the unit of instruction based on the needs and interest of their students and the context of the school and community, which is a strong justification for curricular choices.

Table 2

Course Outline for Food, Nutrition and Wellness offered in Nutrition and Food Career Pathway at Anywhere High School, Anywhere, USA

Units of Instruction (Subject Matter Topics)	Proposed Time (Number of Weeks)
Introduction	1 week/5 days
Nutrition	3 weeks
Lifestyle Decisions	3 weeks
Food Safety	3 weeks
Equipment	2 weeks
Skills	4 weeks
Careers in Food and Nutrition	2 weeks

Note: This course outline is developed for an 18 week period.

The course outline (units of instruction) in Table 2 is for a *Nutrition and Wellness* course. Table 3 is a further analysis of the units of instruction with subject matter topics and subtopics. The content in a course outline is developed for the entire time that students will be in the course whether it is a year on a 60 minute schedule (36 weeks), or a semester on a 90 minute block schedule (18 weeks), or a quarter on either a 60 or 90 minute schedule (9 weeks).

Table 3

Units of Instruction for Nutrition and Wellness offered in Nutrition and Food Career Pathway at Anywhere High School, Anywhere, USA

`Units/Subject Matter Topics and Sub Topics	Proposed Time/Number of Weeks
Introduction FCCLA	1 week
Nutrition Nutrients* MyPyramid.com Planning Food Choices Weight management/Obesity Food and Fitness	3 weeks
Lifestyle Decisions Drugs Alcohol Smoking	3 weeks

Food Safety Food Safety and Sanitation Food Temperatures Food Borne Illnesses Food Handling and Storage	3 weeks
Equipment Kitchen Equipment, Types and Cost Kitchen Equipment Usage Kitchen Design and Function	2 weeks
Skills Knife Skills Measurement Skills Cooking Techniques Recipe Skills	4 weeks
Careers in Food and Nutrition	2 weeks

Table 4 shows a suggested scope and sequence for the unit of instruction on nutrients in the *Nutrition and Wellness* course. This unit of instruction could be used in almost any Foods and Nutrition course (i.e., Nutrition and Wellness, Food Science) and the technical or non-technical approach curriculum as nutrients are germane to the content area. Three different texts were used to gather the information in Tables 3 and 4. The main text used was *Nutrition and Wellness* (Duffy, 2006). The two secondary texts were *Guide to Good Food* (Largen & Bence, 2006) and *Adventures in Food and Nutrition* (Byrd-Bredbenner, 2007). However, a different textbook with the same basic information may be used to replace any of the three books listed above. Teachers may also vary on the topics included and the amount of time devoted to each.

Table 4

Unit of Instruction on Nutrients for Nutrition and Wellness offered in Nutrition and Food Career Pathway at Anywhere High School, Anywhere, USA

Scope	Sequence
Proteins Amino acids Complete proteins Incomplete proteins	1 day (90 minutes)
Carbohydrates Sugars Starches Fiber Glycogen	1 day (90 minutes)
Fats Saturated fats Unsaturated fats	1 day (90 minutes)

Hydrogenation Cholesterol	
Vitamins Fat-soluble Vitamin A Vitamin D Vitamin E Vitamin K Water-soluble B-Complex Thiamin Riboflavin Niacin Vitamin C	1 day (90 minutes)
Minerals Calcium Phosphorus Iron Iodine Fluorine Other trace minerals	1 day (90 minutes)
Water Transporter Blood and tissue fluid Body temperature	1 day (90 minutes)

Implementing the plan

A well-developed plan is not effective unless implemented. The specific objectives and learning activities (for teacher and student) that are included in each unit of instruction must now be implemented. A well-developed lesson plan is necessary in order to implement the subject-matter. Teachers may elect to use one of the three models of instructional design (lesson plan format) authored by Robert Gagne, Madeline Hunter, or Barak Rosenshine and published in *Universal Teaching Strategies* (Freiberg & Driscoll, 2004). The three aforementioned lesson plan formats include almost the same events: introduction of lesson, review of previous lesson, presentation of new content, application of new information, assessing new learning, and closure. Regardless of the lesson plan format that is used, the six events above are basic to effective teaching.

In creating a lesson plan, instructional strategies must be considered. Through different publication outlets, family and consumer sciences educators (Chamberlain & Cummings, 2003; Hitch & Youatt, 2002; Love, Nelson, Gloeckner, Mallette, & Yahnke, 1994; Reichelt & Pickard, 2008; Smith & Katz, 2006; Smith, 2007) have provided strategies for enabling student learning. Strategies provided in the aforementioned resources will also help build a teacher's repertoire and further the development of skills. In family and consumer sciences classes, some instructional strategies encourage problem solving and higher order thinking skills (Shamsid-Deen & Smith, 2006). The varied and repeated use of many of these strategies will help provide a creative and dynamic classroom.

Implementing the technical approach. Implementing each of the curricular approaches (technical or non-technical) is complex, especially for a novice teacher. A teacher could implement the technical approach curriculum using the unit of instruction on nutrients provided above and in Table 3 and 4. An example of a general goal for the unit of instruction is "understand nutrition, lifestyle decisions, and the difference between healthy weight and obesity." Numerous specific and/or behavioral objectives can be written from the general goal provided above. An example of a specific objective is "identify the six nutrient groups." Basic concepts and questions such as the following can be explored: What foods are high in protein? What food is the highest in almost every nutrient? What is the almost perfect food?

Implementing the non-technical approach. On the other hand, a teacher could implement the non-technical approach (practical problem-based curriculum) using the sample unit of instruction on nutrients provided above and in Table 3 and 4. A general goal is "learn to select good food choices that lead to a healthy lifestyle." Some sample questions are: How many grams of protein do I need daily? How many grams of protein does a younger family member need? How many grams of protein does a female parent need? What is the difference between grams of protein needed for each family member? These and similar questions would help students learn the information in a practical problem-based situation when it is connected to everyday living. The difference in implementing the two approaches lies in the desired outcomes for the information.

According to Posner and Rudnitsky (2001), it is too much to expect a single approach of curriculum development to work always and for everyone. This is especially true when such factors as learner, context, and content position their own particular constraints on teachers. Therefore, it is suggested that teachers are familiar with both approaches to curriculum development, technical and non-technical. Additionally, beginning teachers will probably need to re-visit the approaches often during the developmental stages of their career.

Assessing

Assessment is a strategy for measuring knowledge, behavior or performance, or attitude (Freiberg & Driscoll, 2005). Furthermore, assessment attempts to determine students' status with respect to an educational variable of interest (Popham, 2005) and includes a full range of procedures used to gain information about student learning and the formation of value judgments concerning learning progress (Linn & Gronlund, 2000). Assessment is a data gathering strategy that can be used to diagnose students' strengths and weaknesses, monitor students' progress, assign grades, and determine instructional effectiveness.

Assessment strategies can include both traditional and non-traditional techniques. Traditional assessment may include paper and pencil tests whereas nontraditional assessment may include portfolios, journal entries, self-evaluations, and rubrics in addition to objective-type questions (Freiberg & Driscoll, 2005; Posner & Putnisky, 2001; Linn & Grounluud; 2000; Popham, 2005). This is consistent with the standard established by Interstate New Teacher Assessment and Support Consortium **([**INTASC], 2007) and also shown in Georgia Systemic Teacher Education Program ([GSTEP], 2003) framework. The standard states that "the teacher understands and uses formal and informal assessments strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner." An array or varied assessment strategies should be used. However, for beginning teachers it is recommended to review and adapt teachers' manuals and resource books that include test banks and other forms of ready-made assessments.

Summary

Standard 5, Curriculum Development, is an important part of the *National Standards for Teachers of Family and Consumer Sciences* (NATEFACS, 2004) as it gives directions for the family and consumer sciences teacher. The *Standard* also supports the overall mission of the Family and Consumer Sciences Education (FCSE) Association. That is, family and consumer sciences educators work to improve the quality of family and consumer sciences instruction and to broaden the scope of the curriculum.

Producing educators who can effectively perform the three specific actions of all teachers, which are plan, deliver, and evaluate to meet the needs of today's learners is challenging. However, as teacher educators provide learning experiences for preservice teachers, the *Standards* offer a benchmark. Planning is a key element in preparing to become competent in the family and consumer sciences classroom.

Annotated List of Suggested Resources

Books

American Home Economics Association. (1989). *Home economics concepts: A base for curriculum development.* Alexandria, VA: American Home Economics Association.
This publication is written in two major parts, concepts in family and consumer sciences education and curriculum applications. In part I, the knowledge base is recommended. In this publication, the knowledge base is organized around the knowledge needed for action by family members and consumers as they resolve practical questions of the family in the following area: Consumer and resource management; Housing and living environments; Individual, child, and family development; Nutrition and food; and Textiles and clothing. In part II, a general summary of each approach to curriculum development. Specifically, a sub-chapter is provided on concept-based, competency-based, and practical problem-based curricular.

Chamberlain, V. M., & Cummings, M. N. (2003). *Creative instructional methods for family and consumer sciences, nutrition and wellness*. New York: McGraw-Hill.
This book is divided into four parts and has 26 chapters. Part I explores the educational process and includes seven chapters. Chapters 3 (Curriculum Development and Concept Organization), 4 (Objectives and Competencies), 5 (Designing Learning Experiences), 6 (Teaching Plans), and 7 (Assessment) are recommended to help satisfy the requirements of curriculum development.

Duenk, L. G. (1993). *Improving vocational curriculum*. South Holland, IL: Goodheart-Willcox Company Inc.
This book provides guidelines for those responsible for the development of contemporary curriculum for instruction in career and technical education. it consists of 12 chapters, each aimed at specific tasks in curriculum development or at a particular method of instruction.

Freiberg, H. J., & Driscoll, A. (2004). *Universal teaching strategies* (4th ed.). Boston: Allyn & Bacon.
This book has 14 chapters and is presented in three parts; plan, deliver, and evaluate. Part I is focused on the planning process and contains six chapters, whereas, Part II deals with delivering the content and has six chapters. Part III highlights evaluating the learners with

two chapters. Although this book is useful for a curriculum class, Part I would be especially helpful for teacher educators as they teach the content and novice teachers in understanding and planning.

Hitch, E. J., & Youatt, J. P. (2002). *Communicating family and consumer sciences: A guidebook for professionals* (2nd ed.). Tinley Park, IL: Goodheart-Willcox Co. Inc.
This book is presented in 15 chapters. However, chapter 6 (Deciding What to Communicate) would be helpful to teachers developing a curriculum that is concept-based.

Linn, R. L., & Gronlund, N. E. (2000). *Measurement and assessment in teaching* (8th ed.). Upper Saddle River, NJ: Prentice Hall.
This book focuses on the importance of assessment in the instructional practices of teachers. The ability to construct, select and evaluate assessments provides effective measures for student learning. This literature introduces the teacher to various processes of educational measurements.

Miller, P. W., & Erickson, H. E. (1985). *Teacher-written student tests: A guide for planning, creating, administering, and assessing.* West Haven, CT: National Education of Education Professional Library.
This publication offers guidelines, practical suggestions, and examples for developing better teacher-made tests. It is divided into five chapters: (1) Planning Classroom Tests, (2) Guidelines for Developing Classroom Tests, (3) Assembling and Administering Classroom Tests, (4) Assessing Test Items, and (5) Desirable Characteristics of Tests. Instructional objectives are included in planning appropriate test items; general and specific guidelines are given for developing classroom tests. An item response profile and discussion of item discrimination are necessary for assessing test items. Descriptions of validity and reliability are included as desirable characteristics of tests.

Popham, W. J. (2005). *Classroom assessment: What teachers need to know* (4th ed.). Boston: Allyn & Bacon.
This book distributes knowledge of assessment concerns faced by today's classroom teacher. Assessments are to assist with the educational choices of teachers. These are not to be deemed trivial or standardized in anyway. The mainline concepts of measurement desired by classroom teachers are examined and expanded upon in this manuscript.

Posner, G. J., & Rudnitsky, A. N. (2001). *Course design: A guide to curriculum development for teachers*. (6th ed.). New York: Longman.
This book was created for teachers in training and current teachers to help them make the connection between the application and theory of curriculum development. It presented courses of action concerning the development of an intriguing, flexible curriculum for students.

Redick, S. S., Vail, A., Smith, B. P., Thomas, R. G., Copa, P., Mileham, C., Laster, J. F., Fedje, C., Johnson, J., & Alexander, K. (1998). Family and consumer sciences curriculum guidelines. *In Association for Supervision and Curriculum Development Curriculum Handbook* (pp. 1-120). Alexandria, VA: Association for Supervision and Curriculum Development Curriculum.
This chapter in the ASCD Curriculum Handbook is an overview of the practical problem-based curriculum. The chapter contains nine essays including an executive summary;

status of family and consumer sciences curriculum; initiatives, standards, and curriculum guidelines; family and consumer sciences process-oriented curriculum: an essay; implementing family and consumer sciences curriculum; principles of teaching practice in family and consumer sciences education; what every curriculum administrator wants to know about FCSE: part I; what every curriculum administrator wants to know about FCSE: part II; and using a process-oriented approach in teaching FCSE: a scenario.

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About the Author

Bettye P. Smith is a professor in Workforce Education, Leadership, and Social Foundations at The University of Georgia, Athens, Georgia.

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