

Chapter 3

Process for FACS National Standards

Introduction

Process has been addressed in the FACS National Standards Project in two ways: through reasoning for action, an overarching, process-oriented standard; and through process questions provided for the content standards in each of the 16 Family and Consumer Sciences areas of study. The purposes of this chapter are to provide background information on process, to explain the structure of the process questions, and to present the reasoning for action standard.

Importance of Process

Process is a vehicle for obtaining, analyzing, and using content. Costa and Liebmann (1997) describe processes as the “how” of learning while content is the “what.” The emphasis on process within FACS National Standards is grounded in needs and issues of society and in developments in Family and Consumer Sciences Education.

The importance placed on process does not in any way imply that all Family and Consumer Sciences Education programs are expected to pursue a single approach to teaching reasoning or any of the other processes. Just as there are many different facets to process, there are many different strategies that FACS educators could use to help their students develop the understandings and abilities established as standards and goals for their own programs.

Needs and Issues of Society

Vocational educators and other trend watchers predict that over their lifetimes, today’s students will work in several career areas and hold a multitude of different jobs, several of which may not yet be invented. Given the certainty of future change, today’s students are best served by education which

causes them to recognize and develop their own abilities to identify problems, to locate and synthesize information, and to work with others to create solutions (Delisle, 1997; Costa & Liebmann, 1997).

The need for process in education was emphasized in the 1991 report of the Secretary's Commission on Achieving Necessary Skills (SCANS). Based on information gathered from businesses and industries across the country, the SCANS determined that process-oriented foundations and competencies are "at least as important as technical expertise . . . The competencies represent the attributes that today's high-performance employer seeks in tomorrow's employee" (U.S. Department of Labor, 1991, p. xvi). The SCANS foundations and competencies harmonize closely with processes needed for and developed through Family and Consumer Sciences Education.

Developments in Family and Consumer Sciences Education

Fox (in press) explains that the ground work for the current shift in emphasis to a process from a technical approach was established several years ago with the publication of *Home Economics: A Definition* (Brown & Paolucci, 1979). The authors described the issues families face as "practical problems," or value-based questions about what actions individuals and families should take in addressing the concerns they face over time. Central to the practical problems approach is that participants (students) identify the problems families face and the participants themselves ultimately determine what they need to know and which actions to take. The practical problems approach essentially inverts traditional approaches to education by beginning with questions, emphasizing examination of valued ends and alternative means for accomplishing them, and addressing only the particular information and skills needed to identify and take the selected actions.

In the practical problems approach, the uniqueness of the knowledge base or curriculum content does not come from the uniqueness of the concepts, but rather from the questions themselves. From a practical problems perspective, content develops in response to the questioning. It is important to start with issues in which students have some knowledge and then make new knowledge available to them as interests and concerns increase. Using this approach, content fits when it becomes time to practice process, and when students are able to find answers to their own relevant questions (Rhode Island Department of Elementary and Secondary Education, 1997; Redick, 1995; Stone, 1993).

A number of recent Family and Consumer Sciences Education curriculum initiatives reflect the practical problems approach, with an emphasis on integrating process and content. This emphasis is apparent in Family and Consumer Sciences Education curriculum in at least 13 states, based on information provided to the national standards project. Further information about curriculum materials is available in the references section.

Framework for Process Questions

During the Park City Meetings, it was decided that a definite structure was required to provide a basis for the development of the process questions that address the practical problems approach. An extensive list of processes that students would ideally learn and utilize within their study of FACS were identified by the participants at the meeting.

Organizing Processes

Most processes related to Family and Consumer Sciences can be categorized into four organizing processes: thinking, communication, leadership, and management. While it is recognized that some of the plethora of processes that could be dealt with in the FACS curriculum could fall outside of these four organizers, or that specific definitions could make for an uncomfortable fit, it was widely agreed that these four would be used for the project in order to create a manageable structure for the development of process questions for the national standards. Brief explanations of the four organizing processes follow.

Thinking

Thinking processes encompass complex, multifaceted activities of the mind. The process area of “thinking” in the FACS National Standards emphasizes “directed” thinking or “the use of cognitive skills or strategies that increase the probability of a desirable outcome. It is purposeful, reasonable, and goal-directed . . . when the thinker is using skills that are thoughtful and effective for the particular context and type of thinking” (Halpern, 1996, p.5). It is compared to nondirected thinking, a human tendency for routine patterns of thinking, that makes us susceptible to hasty, fuzzy, narrow, or sprawling thinking (Perkins, 1995).

Way (1987) describes three major components of purposeful, directed thinking, including an extensive and accessible knowledge base, multiple cognitive skills, and disposition to think productively and critically. Cognitive skills are further divided into two types: analytical processes such as classifying, comparing and contrasting, distinguishing between fact and opinion, generating and testing hypotheses, and recognizing and applying inductive and deductive reasoning; and executive or metacognitive processes such as planning, representation, and self-monitoring. These analytical and executive thinking processes are similar to the “Habits of Mind” advocated by Marzano (1992).

Two major but distinct types of thinking processes are critical thinking and creative thinking. Critical thinking emphasizes examination and critique of printed and spoken language in order to gain insight into meanings and interpretations. Critical thinking involves systematic, purposeful analysis of explanations and arguments in order to identify premises and conclusions; to distinguish among opinion, reasoned judgment, and fact; and to recognize underlying assumptions, biases, and values (Wisconsin, 1987). Creative thinking, in contrast, is the use of innovative, exploratory approaches to generate ideas. In creative thinking, unusual ideas are valued, and perspectives and explanations other than those which are immediately apparent are sought (Halpern, 1996).

A key belief related to thinking processes is that they can be learned, and therefore, can and should be purposefully addressed in instructional settings (Halpern, 1996; Laster, 1987; Marzano, 1992; Perkins, 1995; Sternberg, 1996). Marzano (1992) states that not only must thinking processes be overtly taught and reinforced, they must also be introduced and then reinforced in context. The “practical problems approach” for Family and Consumer Sciences Education is well-suited to this type of explicit attention to the thinking processes identified above (see Laster & Thomas, 1997; Thomas, 1987).

Communication

Communication is the transmission or interchange of thoughts, feelings, opinions, and information between a sender and a receiver. Communication processes include speaking, listening, writing, and reading. Speaking also involves matching verbal messages with appropriate nonverbal communication, while writing involves creating and formatting various types of printed documents. Word usage, fluency, and structure are technical processes used in speaking and writing. Sensitivity to others, insight into individual differences, and ability to adjust communication to the audience are important interpretive processes. Listening and reading are processes for receiving messages. For instance, effective listening includes good eye contact, asking questions to clarify what the speaker is saying, and regularly sharing, through paraphrased feedback, an understanding of what the speaker has said. Effective reading, on the other hand, includes more individualized interaction with the text.

Communication processes are first experienced and learned within the social environment of the family. The process of learning to be an effective communicator begins in infancy, with babies and care givers engaging in interactive behaviors such as playing, cooing, smiling, and fussing or comforting. As communication learning continues, parents and siblings play a critical part in expanding a child’s communication repertoire, exposing the child to unique expressions of verbal and nonverbal language, and engaging the child in conversations as a communication partner.

Communication processes build a sense of cohesiveness within groups. They are a powerful cultural tool, a means for creating a sense of group identity through exchange of values, expectations, and ways of thinking and perceiving. Communication also is important for managing conflicts. Effective communication includes accepting, rather than denying or avoiding, differences while trying to identify common ground. Conflict management is facilitated when individuals are able to express their own ideas and assert their own views effectively, while at the same time listening to and respecting the views of others (adapted from Ohio Department of Education, 1995).

Leadership

Leadership processes include helping a group, such as a family, shape a vision of purpose and goals, and encouraging others to commit and recommit themselves to accomplishing that vision. Leaders use many types of processes. They work with others in establishing a shared dream or goal, and in using that dream or goal to guide actions. They relate well to other group members in that they listen, empathize, and consider others' perspectives before taking action. Leaders tell, sell, participate, and delegate, using different strategies at different times and with different group members in order to involve and encourage everyone toward achieving the shared vision.

Shared, participatory leadership incorporates involvement, cooperation, and negotiation among all group members (Woyach, 1991). It means that everyone in the group can contribute leadership skills and that each group member is encouraged to help make decisions and to take action. Shared leadership results in empowered, interdependent relationships among group members. Shared leadership is closely related to responsible citizenship in a democratic society. Being a responsible citizen requires taking action for the common good of the group. Responsible citizens are concerned about the well-being of all society members and take social action to meet those needs.

Similarly, being a responsible family member requires taking action for the common good of the family as a whole, as well as, for the good of individuals. Leadership is enacted in families as members develop a common vision, relate and cooperate with each other, and assume shared responsibility for each other, their home, and their neighborhood (adapted from Ohio Department of Education, 1995).

Management

Management processes are used to carry out actions in order to meet individual and family needs. Management processes include setting goals, planning, implementing, evaluating, problem-solving, and decision-making. The complexity of management processes varies with the situation. In some cases, goals are clearly established, a choice has been made from among acceptable alternatives, and means

for accomplishing the goal are clearly or narrowly defined. In these situations, management is primarily a technical, action-oriented process used to select strategies and resources for reaching the established goal. It involves determining the short-term or intermediate goals that can be realistically accomplished, planning the steps to take and resources to use, carrying out the plan in an efficient and cost effective way, and evaluating the implementation process and the result.

Other cases are more complex. If goals are not clearly established, management processes would include examination of values, perspectives, and concerns. Reasoning processes would be used to identify alternative actions and consider consequences of various alternatives. Once acceptable alternatives are identified, decision-making processes would be used to examine, evaluate, and select one option based on current preferences and resources.

The multiple layers of management processes described above are used simultaneously and interactively to address personal and family issues. In addition, each of these incorporate other organizing processes in varying ways. For instance, critical thinking processes such as assessing information accurately, judging the viability of alternatives, and making a decision, are integral to many management situations. Creative thinking processes such as imagining consequences, conceptualizing alternatives, and empathizing with others are also important. Furthermore, when management processes are carried out in families and other groups, communication and leadership are needed as well. Thus, all four organizing processes are used in taking action to meet individual and family needs, and all will be integrated in process-based Family and Consumer Sciences Education (derived from American Home Economics Association, 1989; Indiana Department of Education, 1997; Ohio Department of Education, 1995).

Types of Action

As the group worked with these four organizing processes, they recognized the need for questions that would help students take a variety of types of action within each process. Specifically, they identified the need for students to take three types of actions: technical, interpretive, and reflective. The integration of content and process in a practical problems approach involves all three types of action. It is important to remember that these actions are not used separately or in isolation. Rather, they are collaborative, interrelated actions which in actual practice are used to support, strengthen, and enable one another. Brief explanations are given below for each type of action. References used to develop these explanations include American Home Economics Association (1989), Brown (1980, 1981), Brown & Paolucci (1979), Fox (1997), Fox (in press), Hultgren & Wilcosz (1986), Indiana Department of Education (1997), Kowalczyk, Neels, & Sholl (1990), Laster (1997), Maryland State Department of

Education (1989), Morgaine (1992), Ohio Department of Education (1997), Wisconsin Department of Public Instruction (1997), and Wogensen (1989).

Technical Action

Technical action emphasizes knowledge, facts, and manipulative skills. Technical action includes activities such as planning a day's menu based on the Food Guide Pyramid, describing typical characteristics of a two-year-old, explaining the steps in a planning process, preparing a given recipe, or sewing on a button. Textbooks, lectures, demonstrations, and laboratory activities typically build technical knowledge and skills.

Technical action is essential for successful personal and family life and for all types of careers. There are certain things individuals and families need to know and be able to do. But how can we decide which knowledge and skills are needed? How do we gain and consider perspectives broader than our own? This is where interpretive and reflective actions come in, to support, strengthen, and guide technical actions.

Interpretive Action

Interpretive action emphasizes interacting with other people through written and spoken words. Interpretive action is used to develop mutual understanding; shared meanings; and interpretations of values, means, and goals. We are involved in interpretive actions when we share ideas and when we seek to understand how other people view issues and problems we are trying to address. Interpretive action also is important for anticipating the impacts various actions could have on ourselves and others. Class discussions, journal writing, and role playing are class activities that students and teachers often use which involve interpretive action.

Reflective Action

Reflective action is a key component of the practical problems approach. Reflective actions feature critical examination of various alternatives, with a goal of selecting the "best" action to take. Reflective actions are used to answer questions such as, "What should we do?" "What is the best action to take?" Reflective action relies on technical knowledge and skills. It also depends on interpretive actions through which we aim to understand our own and others' points of view. Reflective action seeks to examine and address the root issues, the causes of problems that individuals and families face, and to make choices that will be best for selves, others, and society. Classroom activities in which students

make decisions and then must defend the choices they make are examples of reflective action. Other classroom activities which can emphasize reflective action include journal writing, role playing, group discussion, social action, and service learning.

Presentation of Process Questions in the Standards Document

In order to assure that the procedure for developing process questions would include questions that helped students consider all three types of action within each of the organizing processes, those who worked on the process questions for the standards crosswalked the three types of action with the four organizing processes. The resulting matrix shows twelve cells that represent the permutations achieved by the crosswalk. This matrix, yielding four sets of process questions, was applied to each content standard. Each set, includes questions for technical, interpretive, and reflective action, generally in that order. Section II of this document presents all components of the standards, including the process questions described above.

Matrix for Processes / Actions Questions

Organizing Processes	Types of Action		
	Technical Action	Interpretive Action	Reflective Action
Thinking Processes	<i>Questions that lead to technical actions about thinking processes</i>	<i>Questions that lead to interpretive actions about thinking processes</i>	<i>Questions that lead to reflective actions about thinking processes</i>
Communication Processes	<i>Questions that lead to technical actions about communication processes</i>	<i>Questions that lead to interpretive actions about communication processes</i>	<i>Questions that lead to reflective actions about communication processes</i>
Leadership Processes	<i>Questions that lead to technical actions about leadership processes</i>	<i>Questions that lead to interpretive actions about leadership processes</i>	<i>Questions that lead to reflective actions about leadership processes</i>
Management Processes	<i>Questions that lead to technical actions about management processes</i>	<i>Questions that lead to interpretive actions about management processes</i>	<i>Questions that lead to reflective actions about management processes</i>

Reasoning for Action Standard

In order to highlight the relevance and applicability of the reasoning for action standard for all areas of study, it is presented with its defining content standards and competencies in this introductory section of the standards document.

Comprehensive Standard

Uses reasoning processes, individually and collaboratively, to take responsible action in families, workplaces, and communities.



**Reasoning
for
Action**

Content Standards and Competencies

1. Evaluate reasoning for self and others.
 - 1.1 Analyze different kinds of reasoning (e.g., scientific, practical, interpersonal).
 - 1.2 Distinguish between adequate and inadequate reasoning.
 - 1.3 Identify criteria for adequate reasoning for action.
 - 1.4 Identify consequences of inadequate and adequate reasoning for self and others.

2. Analyze recurring and evolving family, workplace, and community concerns.
 - 2.1 Distinguish different types of concerns (e.g., theoretic, technical, and practical problems) and alternative methods for addressing them.
 - 2.2 Identify recurring and evolving concerns facing individuals, families, workplaces, and communities.
 - 2.3 Identify conditions that create or sustain recurring concerns.
 - 2.4 Describe levels of problems: individual, family, cultural/societal.

3. Analyze practical reasoning components.
 - 3.1 Distinguish types of knowledge needed for reasoned action: value-ends, goals, contextual factors, alternative actions, and consequences.
 - 3.2 Distinguish short-term and long-term consequences on self, family, and society.
 - 3.3 Analyze assumptions underlying beliefs and actions.
 - 3.4 Distinguish adequate, reliable information from inadequate, unreliable information.
 - 3.5 Distinguish role exchange, universal consequences, and other tests for making ethical judgements.
 - 3.6 Distinguish adequate from inadequate reasons.

4. Demonstrate practical reasoning for ethical action in families, workplaces, and communities.
 - 4.1 Collect information from a variety of reliable sources.
 - 4.2 Identify recurring and evolving individual, family, workplace, and community concerns.
 - 4.3 Determine goals/valued ends to resolve a concern.
 - 4.4 Establish standards for choosing responsible action.
 - 4.5 Evaluate the conditions of the particular concern: historical, social-psychological, socioeconomic, political, and cultural conditions.
 - 4.6 Create reasonable actions for reaching goals/valued ends.
 - 4.7 Use adequate, reliable information in reasoning.
 - 4.8 Evaluate potential short- and long-term consequences of alternative actions on self, others, and society.
 - 4.9 Give reasons based on valued ends and scientific facts.
 - 4.10 Make a decision about action to take supported by adequate and ethical reasons, valued ends, contextual conditions, and positive consequences of actions.
 - 4.11 Develop a plan of action.
 - 4.12 Take action based on adequate and ethical reasons.
 - 4.13 Evaluate and monitor actions, including consequences on self, others, and society.

5. Demonstrate scientific inquiry and reasoning to gain factual knowledge and test theories on which to base judgements for action.
 - 5.1 Define terms.
 - 5.2 Judge validity and reliability of information, sources, opinions, and evidence.
 - 5.3 Give reasons based on scientific principles, observations, evidence.
 - 5.4 Hypothesize and test hypotheses and theories.
 - 5.5 Draw conclusions based on factual data and information.
 - 5.6 Evaluate scientific reasoning processes.