A FOLLOW-UP STUDY: THE EXAMINATION OF TEACHING BELIEFS AND ITS INFLUENCE ON CURRICULUM ORIENTATION DECISIONS

Margaret E. Lichty
California State University—Long Beach

Julie M. Johnson
University of Nebraska—Lincoln

A follow-up study was conducted to determine whether original participants involved in a curriculum change workshop made lasting changes in their teaching practice. Mailed survey data received from FCS teachers in a Midwestern state who participated as members of learning communities over a 3-year period were analyzed to reveal what influenced and supported change, and what barriers hindered change from occurring. The majority of the respondents of this study made lasting changes in their curriculum orientation since attending the curriculum change workshops ten years earlier. The major influence causing change to occur was their participation in the learning communities. The most frequent change among these individuals was moving from what Eisner and Vallance (1974) referred to as the Technical, more traditional curriculum orientation to a Cognitive Processes curriculum orientation. Follow-up telephone interviews with the teachers who made changes revealed insights into how their teaching changed and what teaching and learning looks like in their classrooms today. Support is needed for teachers to continue with their current teaching orientations.

Since the early years of family and consumer sciences (FCS), societal conditions and the problems of individuals, families, and communities have changed. Both parents are working; the divorce rate has increased; single parent families and step families are prevalent; family violence, drug use, and crime are on the rise; and health care and adequate housing are not affordable. These societal concerns change the teaching and learning environment for teachers and students.

While some changes have been made in FCS curriculum, more changes are needed to address the issues faced by today’s families. Brown (1980) and others have written about what they believe FCS should address and the approach that should be used (Baldwin, 1991; Vaines, 1990).

The mission of FCS as proposed by Brown and Paolucci in 1979 challenged professionals to address problems of the family:

The mission of home economics (the profession now known as family and consumer sciences) is to enable families, both as individual units and generally as a social institution, to build and maintain systems of action which lead to (1) maturing in individual self-formation, and (2) enlightened, co-operative participation in the critique and formulation of social goals and the means of accomplishing them (p. 23).

In 1992, Johnson developed learning communities in four regions across a Midwestern state as part of a curriculum project. The learning communities were designed to help FCS teachers examine their beliefs about curriculum, explore curriculum orientations, and identify an
orientation they wanted their practice to reflect. The teachers learned about various curriculum orientations or ways to approach or think about curriculum from an FCS teacher educator. These orientations are known as social reconstruction, personal relevance, cognitive processes, technology (or technical), and academic rationalism. Over a three-year period, the teachers examined their own beliefs about teaching and learning by writing journals, video-taping their teaching, and meeting as learning communities. In these active learning sessions they discussed their beliefs and teaching practice. They were encouraged and challenged to move toward having their teaching practice match their beliefs or orientations.

**Statement of the Problem**

The original project focused on the examination of the teachers’ beliefs. It was not known if the teachers actually changed their curriculum orientation, or what support or barriers they had encountered in the process. A decision was made by the co-researchers of the project to conduct a follow-up to the initial study to determine the effect of time on the participants of the curriculum change project. The purpose of the follow-up study was to determine whether the original participants made lasting changes in their teaching practice since their involvement in the learning communities ten years earlier and to learn what supported or hindered those changes. The types of changes that occurred, what their teaching looks like now, and the kinds of support needed by the teachers will also be identified.

**Review of Literature**

The FCS mission forwarded by Brown and Paolucci (1979) implies that in order to enable individuals and families to view societal problems from many views and take action to improve society, teachers should approach curriculum from a critical science orientation. The traditional or technical orientation will not accomplish the desired results. It is important for teachers to examine their beliefs and to know what their philosophy consists of, because, according to Coomer (1982), “If each of us does not have a thoughtfully and clearly stated position, we are subject to the fascination of the latest fad” (p. 2). If teachers are to change their teaching, they must first examine their beliefs and take action consistent with their beliefs.

According to Vaines (1990), “A philosophical orientation is essentially a process which integrates what was, is, and should be, related to beliefs, knowledge, and action” (p. 6). Hoeft (1986) referred to curriculum as “my thoughts, beliefs, and ideas---what happens between my students and [me] in the classroom. It is my state of mind” (p. 37). A philosophy or orientation, according to Jax (1986), is “the teacher’s framework for thinking about, developing, and practicing curriculum and is based upon personal beliefs and values” (p. 246). A philosophical orientation can become the means for guiding the curriculum decisions of the teacher. These decisions include the purpose of the curriculum, the role of the learner, the role of the teacher, the subject matter, the classroom actions taken, and the expected learning outcomes of the students. In an ideal situation, all of these curriculum components would be decided based on a well-thought-out philosophy or orientation. Many authors have identified different views or beliefs teachers hold about curriculum (Fenstermacher & Soltis, 1986; Brown, 1980; Eisner & Vallance, 1974; Jax, 1986).

Eisner (1985) identified several orientations: cognitive processes, academic rationalism, personal relevance, social reconstruction, and curriculum as technology (technical). Brown’s (1980) writing on home economics (family and consumer sciences) issues reflected a critical science approach that seems to combine Eisner’s social reconstruction and cognitive processing
orientations. Social reconstruction analyzes social issues from many viewpoints and asks questions in order to find solutions to bridge the gap between what exists and what should be. The cognitive processes orientation is focused on developing skills in a variety of processes, including problem solving, decision making, critical thinking, and memory skills; it means learning intellectual processes.

A council of teacher educators and state supervisors in the Midwestern state in this study made the decision in 1985 to develop curriculum using Brown’s writings as the philosophic base used for curriculum decision making. Using Brown’s work results in family and consumer sciences courses concerned with the practical problems of individuals and families in their everyday lives. Students learn how to take action in situations using reflective decision making or practical reasoning. Moving to this type of curriculum meant teachers might need to change their beliefs about curriculum.

Changing one’s philosophy or curriculum orientation appeared to be a task of monumental proportions for family and consumer sciences teachers, and one that was different from other changes previously asked of them. Teachers needed to be involved in questioning the assumptions they held related to curriculum and involved in deciding which orientation was the most defensible. Then they could make better decisions based on an examined orientation or philosophy, yet there was no literature available on what it was like for FCS teachers to change their teaching orientation (Lichty, 1996).

A study by Jenkins (1997) documented an exemplary first year teacher’s struggle with the conflict between the beliefs she held and her actions related to curriculum concerning student-centered teaching. In spite of having significant potential to use student-centered teaching methods successfully in her classroom, she chose to use the teacher-centered methods because she earned positive rewards and recognition when she used those methods. This caused her to feel conflicted and, in turn, caused her to want to lessen the conflict and maintain confidence. In order to do this, the teacher avoided situations or issues that questioned her instructional competence. Jenkins (1997) recommended that teacher education programs make new teachers aware of the lack of support they may encounter for implementing student-centered teaching, feelings of incompetence they may experience, the resistance they may face from their students, and how their own conceptions of teaching and learning might be resistant to change.

The issue of curriculum orientations is becoming more of interest to educational researchers than in the past. Most teacher preparation programs utilize a specific model or approach, yet students come to the programs with various life and educational experiences, and, therefore, certain beliefs about teaching and learning. In an effort to bring some agreement between the teacher education program and the students in the program, Nottis, Feuerstein, Murray, & Adams (2000) developed an instrument for measuring the theoretical and practical orientations of pre-service teachers.

In 2002, Cheun and Wong developed an instrument to investigate the curriculum orientations of teachers already in the field. Teachers’ beliefs have a major impact on what and how teachers will teach. Findings from previous studies have revealed that a teacher’s beliefs about what students should learn often influence curriculum planning. Ekpone’s (1999) investigation of factors influencing curriculum selection made by high school special education teachers revealed that education philosophies as well as curriculum content directed toward the students’ acquisition of necessary skills were evident in curriculum decisions.

Brodhagen’s (1998) qualitative study reported teacher beliefs as the number one influence on teacher decisions related to curriculum integration. Brodhagen concluded that a
teacher’s beliefs regarding curriculum integration will guide curriculum selection for students. Willey’s (2002) investigation of literacy curriculum decisions made by two beginning teachers also reported that beliefs, teaching theories, and practices influence teacher decisions. Rogers (1999) implies that the very nature of a subject, the beliefs held by teachers concerning those subjects, and students’ needs also impact a teacher’s curriculum decisions. According to Rogers, students play a major role in curriculum decisions as their needs and benefits of instruction are always taken into consideration.

Lichty (1996) reported what it was like for FCS teachers to examine their curriculum orientation and identified factors that created obstacles or support for a change to take place, including a possible change of curriculum orientation. Teachers met as learning communities six times in three years to learn the various curriculum orientations and then reflect on their beliefs and actions as they worked through the experience (Lichty, 1996).

The learning communities were designed to help teachers explore their beliefs about their curriculum, learn other curriculum orientations, and identify an orientation(s) they wanted their practice to reflect. Twenty-nine teachers kept journals, recording assignments, thoughts, ideas, beliefs and personal reflections. The journals were transcribed and coded and were used as the data for analysis (Lichty, 1996). The teachers’ reflective journaling revealed that before teachers can change, they must experience an event or problem that creates readiness for change (Brozovsky, 1998; Lichty, 1996).

Many psychological factors of support existed including excitement, challenge, revitalization, and commitment. Resources of time, skill, knowledge, and finances were important in supporting change efforts. Family members provided support for teachers involved in the change process and, in some cases, school administrators provided support and encouragement to teachers who wanted to make curriculum changes. In some cases, co-workers provided support for teachers involved in change activities. Teachers received various forms of support from college professors and were influenced by them. The learning communities provided an excellent forum for teachers to learn about curriculum orientations, examine their own beliefs and practices, and share learning experiences. The teachers viewed their participation in the learning communities as a luxury and a precious opportunity to network, to grow, and to share (Lichty, 1996; Montgomery, Brozovsky, & Lichty, 1999).

Psychological barriers of fear, insecurity, lack of commitment, and particularly frustration were felt by many of the learning community participants. Lack of financial resources and lack of time, knowledge, and skill created barriers for teachers. Lack of time was the primary resource causing a barrier for most teachers. Administrators, parents, and students were viewed as barriers to change primarily because there seemed to be a gap in the understanding of what family and consumer sciences curriculum should be. Psychological costs of change for teachers included excitement, anxiety, fear, anger, constant turmoil, concern, illness, anticipation, and frustration. Their confidence was challenged, tested, and stretched. Personal resources of time, energy, and skill were viewed by some as personal costs to their change process (Lichty, 1996; Montgomery, et al., 1999). Understanding FCS teachers’ curriculum experiences and how the teachers felt and thought about those experiences provided insight into how curriculum change takes place. For those teachers who were conscientious about having their teaching practice be consistent with their belief system, it was beneficial to study how the examination of their own orientation, a first step in the process of teacher change, and changing their beliefs and practice was accomplished (Lichty, 1996).
Teacher educators gained knowledge of factors that facilitated change and obstacles that inhibited change. Teacher educators in this state and others had a clearer idea of what it was like for teachers to reflect on change as they examined curriculum orientations and assisted other teachers who were in the process of curriculum change. It helped teacher educators and teachers to see what it was like to change from one belief system to another. This helped in the facilitation of the change process with teacher educators enabling teachers to empathize with those of the learning communities, providing the support needed and removing potential barriers where possible.

Questions remained, however, after the curriculum change project ended and the learning communities were dissolved. Were the teachers able to continue their personal journey through the curriculum change process? Were they able to make lasting changes in their practice to reflect their beliefs? This follow-up study addressed these questions.

**Methodology and Procedures for Follow-Up Study**

In order to answer these questions, follow-up questionnaires were sent to the 29 original participants of the 1992 curriculum change project. In order to refresh the memories of the respondents, the questionnaire included an introductory statement that reviewed definitions of the six curriculum orientations they had studied in the learning communities in 1992. The questionnaire contained rating scales, forced choice and open-ended items, and demographic questions. The questions were:

1. Try to recall which curriculum orientation you held prior to the workshops you experienced in the curriculum change project.
2. Which orientation would describe your current beliefs?
3. Is your current curriculum orientation a result of having participated in the curriculum change project? If so, to what extent did it change?
4. Are there other influences in addition to the workshops that have caused your curriculum orientation to change?
5. If yes, what were the factors that supported your change of orientation?
6. If not, what were the reasons for the change not occurring?
7. How would you describe the match between your current beliefs and your current practice?
8. How often do you reflect upon your teaching to determine if your practice is congruent with your beliefs?
9. Please provide any additional comments or questions you may have related to your curriculum orientation, the workshops, and/or this study.

Follow-up tape recorded telephone interviews were conducted with the teachers who had made changes; three questions were asked:

1. What kinds of changes have you made in your teaching?
2. What does your teaching look like now?
3. What support is needed for you to continue teaching this way?

The quantitative data were analyzed and described as categorical data using numbers and percentages. The constant comparison method was used to analyze the qualitative data. This involved reading transcripts of the audio tapes one after the other, and in the margins noting themes that emerged. The transcripts were re-read again and again and were constantly compared one to another to make note of the commonalities in themes.
Results

Twenty nine surveys were mailed to the original workshop participants and 28 responses were received. Twenty-one chose to participate in the study. The seven who chose not to participate voluntarily provided reasons for their decisions, including no longer teaching, retirement, and family crisis.

Demographics

Seven of the 21 respondents taught for 11 to 20 years, 10 taught for 21 to 30 years, and 4 taught for 31 to 40 years. At the time of the follow-up study, 10 were teaching high school, 7 were teaching middle and high school students, and 4 were now working in non-formal education settings including the State Department of Education, school district staff, the State Educational Service Unit, and a business corporation. Twenty respondents were working full-time and one worked part-time. Six respondents worked in the western region of the state, two were in the central region, three were in the east-central region, and ten were in the eastern region of the state.

Former and Current Curriculum Orientations

Thirteen of those teaching in public schools (n=17) made changes to their teaching beliefs and practice; four did not. Each of the four respondents from non-formal education settings made changes to their teaching beliefs and practice.

The curriculum orientations held in any combination by the respondents at the beginning of the curriculum change workshops (n=21) were described as Technical (16), Cognitive Processes (6), Social Reconstruction (2), Personal Relevance (7), Social Adaptation (1), and Academic Rationalism (0). (See Table 1). Follow-up study data revealed current curriculum orientations held by the respondents are Technical (7), Cognitive Processes (14), Social Reconstruction (10), Personal Relevance (10), Social Adaptation (0), Academic Rationalism (1), and critical science (1)—a combination of the Cognitive Processes and Social Reconstruction orientations.

Curriculum orientations held by respondents at the beginning of the learning communities project were described as Technical (76%), Personal Relevance (33%), Cognitive Processes (29%), Social Reconstruction (10%), Social Adaptation (4%), and Academic Rationalism (0%). Four percent held the critical science perspective, combination of the Cognitive Processes and Social Reconstruction orientations, at the beginning of the curriculum change project. Follow-up study data revealed percentages of current curriculum orientations held by the respondents are Cognitive Processes (67%), Social Reconstruction (48%), Personal Relevance (48%), Technical (33%), Academic Rationalism (4%), and Social Adaptation (0%). Four percent currently hold the critical science perspective.

Table 1 shows each teacher’s curriculum orientation before the project began and then ten years after it ended. For purposes of anonymity, a number was assigned to each teacher who participated in the curriculum change project and the results are listed in numerical order of the teachers.
<table>
<thead>
<tr>
<th>Teacher #</th>
<th>Orientation Before Project</th>
<th>Orientation After Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technical and Social Adaptation</td>
<td>Cognitive Processes and Social Reconstruction</td>
</tr>
<tr>
<td>2</td>
<td>Technical and Cognitive Processes</td>
<td>Technical and Cognitive Processes</td>
</tr>
<tr>
<td>3</td>
<td>Technical</td>
<td>Cognitive Processes and Personal Relevance</td>
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<tr>
<td>4</td>
<td>Cognitive Processes</td>
<td>Cognitive Processes</td>
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<tr>
<td>5</td>
<td>Technical</td>
<td>Personal Relevance</td>
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<tr>
<td>6</td>
<td>Technical and Personal Relevance</td>
<td>Personal Relevance and Social Reconstruction</td>
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<tr>
<td>8</td>
<td>Technical</td>
<td>Cognitive Processes and Technical</td>
</tr>
<tr>
<td>11</td>
<td>Technical and Social Adaptation</td>
<td>Cognitive Processes, Academic Rat, Social Reconstr, Personal Relevance, and Technical</td>
</tr>
<tr>
<td>13</td>
<td>Personal Relevance and Technical</td>
<td>Personal Relevance and Social Reconstruction</td>
</tr>
<tr>
<td>14</td>
<td>Personal Relevance and Cognitive Processes</td>
<td>Cognitive Processes and Social Reconstruction</td>
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<tr>
<td>15</td>
<td>Technical and Personal Relevance</td>
<td>Social Reconstruction and Personal Relevance</td>
</tr>
<tr>
<td>16</td>
<td>Technical</td>
<td>Cognitive Processes and Technical</td>
</tr>
<tr>
<td>19</td>
<td>Cognitive Processes</td>
<td>Cognitive Processes</td>
</tr>
<tr>
<td>22</td>
<td>Cognitive Processes and Social Reconstruction</td>
<td>Social Reconstruction and Cognitive Processes</td>
</tr>
<tr>
<td>24</td>
<td>Technical and Personal Relevance</td>
<td>Cognitive Processes</td>
</tr>
<tr>
<td>27</td>
<td>Technical</td>
<td>Personal Relevance</td>
</tr>
<tr>
<td>29</td>
<td>Personal Relevance and Technical</td>
<td>Cognitive Processes and Technical</td>
</tr>
<tr>
<td>30</td>
<td>Technical</td>
<td>Cognitive Processes, Personal Relevance, and Social Reconstruction</td>
</tr>
<tr>
<td>31</td>
<td>Cognitive Processes and Social Reconstruction</td>
<td>Technical and Personal Relevance</td>
</tr>
<tr>
<td>32</td>
<td>Technical</td>
<td>Social Reconstruction and Personal Relevance</td>
</tr>
<tr>
<td>33</td>
<td>Technical and Personal Relevance</td>
<td>Cognitive Processes, Social Reconstruction, and Technical</td>
</tr>
</tbody>
</table>

**Influences on Change**

Sixteen respondents indicated that changing their curriculum orientation was the result of their participation in the curriculum change project. Only one respondent who experienced change in her curriculum orientation indicated it was not a result of the curriculum change project, but instead it was due to administrative decisions and community pressure.
All respondents who described their current curriculum orientation as different from their curriculum orientation prior to the curriculum change project described this change as the result of multiple factors. “Personal readiness for change to making teaching what it ought to be” was described as the most important factor in teacher change (83%). “Commitment” had the second highest selection rate (67%) as a factor that supported change. “Peer support,” “dissatisfaction with prior teaching curriculum orientation,” and “revitalization,” had selection rates (58%) as factors that influenced their change.

Support

Three types of support stated by the respondents as most helpful in their ability to change their curriculum orientation and teaching practice were “administrative support,” “peer support,” and “family support.” “Administrative support” and “peer support” were selected 52% of the time and were described as “significant” factors in curriculum and teaching practice change. “Family support” was selected 49% of the time and was described as a “somewhat significant” supporting factor in curriculum and teaching practice change.

Barriers to Change

The respondents of this study who did not experience change in their curriculum orientations did not provide information about what factors may have inhibited change from occurring; therefore, comparisons of this follow-up data to prior research were not possible.

Self-Reflection

In this study, the frequency of self-reflection reported by respondents had no effect on whether or not change occurred in the curriculum orientation of the participants of this study; therefore, comparisons of this follow-up data to prior research were not possible.

Follow-up Telephone Interviews

Of the 13 respondents teaching in public schools who changed their curriculum orientations, 12 were telephoned for follow-up information; one could not be reached. Data were grouped in three categories as the telephone interview transcripts were analyzed: types of changes made in teaching practice, examples of their teaching, and support needed to continue teaching using their current orientation. Further analysis revealed themes identified within each category (See Table 2). It is important to note that it is possible that other interpretations could be made from the responses given from the participants.

Themes identified for question one, “What kinds of changes have you made in your teaching practice?” are philosophical shift, student-centered learning, active learning strategies, relevance, and intellectual processes. One teacher described her philosophical change the following way,

Now the curriculum is designed around a practical perennial question or a concern that students might have, although they may not realize it yet. I see a need to make kids aware of what they’re going to need when they get out in the real world and what skills might be useful in that respect.

Similarly, another teacher illustrated the kinds of problem-focused curriculum approach she uses, saying,

We have talked about discrimination, what it consists of. Yesterday they wrote a paper about, What should be done about discrimination? My Parenting class did
something similar to that yesterday. There happened to be an article in the state’s daily newspaper on child abuse and I brought it and they read it. They had a lot of questions about it because it gave a lot of examples of abuse and provided statistics on deaths. They wrote about, What should be done about child abuse? and we used that as an introduction to the unit. In Adult Living, I incorporate a new issue every week that they will have to deal with in their lives. I pose situations to them and they have to decide if it’s a crisis or not and how they would deal with those issues. These situations come from my own experiences as a college student and from my colleagues and personal friends who encounter these issues on a daily basis. In Foods, we talk about how the media affects us, our eating habits and that type of thing and they write about, What should be done about eating healthfully?

Another teacher referred to the new approach she used in her teaching, stating, “I was a little more technical, where things had to be perfect. Now it’s more that I want to see how you follow directions, how you work together as a group and those kinds of issues.”

Many teachers described how important making their lessons relevant to their students had become. One teacher described this in the following way,

You tend to teach the way you were taught and that was pretty technical. A few years before the workshops, we learned about practical reasoning at another workshop and how “less is more.” We learned how to use fun activities for students to learn the concepts and then apply the learning. The application took more time and so less material was covered. But I saw that the kids were having more fun learning and they would enjoy those sorts of things and be with me and not be gazing out the window, and I knew it was more pertinent to them. The curriculum change workshops reinforced this “less is more” concept. So, I decided if I couldn’t make something pertinent to the kids in their life, if I couldn’t explain why I was teaching it, I wouldn’t teach it. Just because they had to memorize something and learn it, it didn’t make it relevant to them. So if it wasn’t something I could justify, I didn’t find it as important anymore.

Themes identified for question two, “What does your teaching look like now?” are a shift in content emphasis, making connections with community, changes in class format, changes in student assessment, incorporating intellectual processes, and changes in methods. One teacher described how she helps students in classes such as Student Parenting and Families in Crisis to learn that as future voters and public servants, knowledge of available resources in their community would be invaluable. Through guest speakers and field trips to various levels of government agencies, they learned about all the resources available in their community that would help them to meet their own needs as well as how to help others in need.

Several teachers gave examples of how using FCCLA (Family, Career and Community Leaders of America) projects had enhanced the students’ learning. One teacher described how she allows her students to choose what kinds of community projects to focus on, which helps to motivate them. Her classes had sent 25 boxes of useful items to a former student at a hospital in Iraq to be distributed as needed. The projects are more interesting when they can connect to them in some personal way like this and they feel a sense of community and commitment. The students plan, make decisions, and figure out all the skills required to complete each community project they choose.
Another teacher described how the content emphasis and teaching methods in her classes have changed,

I think there are more pressing things to be teaching to my students than sewing skills. At one time in Independent Living, we used to sew. Now in this class we just learn to do mending and how to sew a button on and survival kinds of things, taking care of their clothes. We’ve added more Independent Living and Parenting classes. We have a Reading to Young Children class where the students focus on how to talk with children and how to get along with children and play with children and read to children. In this way, they learn parenting skills and they also explore careers related to children.

Several teachers spoke about how they use questioning differently in their teaching since the workshops. One teacher said,

When a student has a question, instead of answering it I will often turn it back on them. Instead of coming up with a quick answer for them, I try to get them to explore a little bit more, try to figure it out for themselves.

Another teacher told about incorporating higher level questioning into her students’ projects, stating,

Questioning makes my projects different, too. They may do the same poster-type of a project, but instead of just the information they learned, now they will also include how it applies to them, how it influences who they are, and how it affects their decision making.

Another teacher incorporates more critical thinking into her classes and gave the following examples from her classes,

I use more group work so they can bounce ideas off each other and maybe stimulate some thinking, get them to look at other groups of people or to open their minds up to consider other viewpoints. In Foods, we study other cultures, other countries, other habits and then compare them to our own. We even look at other religions and what affects they have on food. In Parenting, we talk about different family situations, different cultures. I try to bring that out in just about anything…trying to look at different situations.

Themes identified for question three, “What support is needed for you to continue teaching this way?” are support for FCCLA, professional development, communication with other professionals, time, curriculum, financial, media, school, students, technology, and community.

Several teachers mentioned the learning communities workshops and described how valuable they were to them to have that time to learn and discuss new ways to think about teaching, share successes and challenges, and just network. Time and money were listed as major kinds of support that were difficult to obtain. Many teachers mentioned that workshops in the summer are the best ways to learn new and practical strategies to enhance their teaching. Perkins grants were mentioned as a necessary means of support for developing curriculum in the summer and it was suggested that they could be used to establish on-going learning communities. Workshops provided by university professors and the state FCS supervisor either on campus or across the state were mentioned by many teachers as being very helpful to them to learn new information related to standards, assessment, and topics like questioning techniques and active learning strategies.
One teacher suggested that emailed reminders of what was learned in the curriculum change workshops would be helpful and many teachers mentioned that the state FCS supervisor’s e-mail listserv was extremely helpful for distributing teaching tips, strategies, updated subject matter information, and Internet resources for free supplies and downloads.

Several teachers spoke about the invaluable resources in the community. One teacher stated,

We invite a lot of community people to come into the classroom. We also take kids from the school out into the community to the various businesses to see what careers and occupations are out there. The kids could pick their brains and ask questions about skills and schooling and that type of thing. We have human resources managers who come in and conduct simulated interviews with the kids for jobs, and they actually do the grading, too.

Concerns regarding on-going support of media and technology in their classrooms were expressed by several teachers. One teacher suggested how beneficial it would be to have sessions for teachers to learn the latest programs and processes using the newest technology and equipment at the annual teachers’ conference. One teacher described her need for technical support in the following way,

The world is moving and changing quicker, and the media needs to be current. We have a lot of computers but we struggle with them to work sometimes. We need a lab with enough availability and more control. I feel that schools should have state of the art technology for the teachers and students to use, but the students often have better computers and technology in their homes.

**Table 2. Themes Resulting from Telephone Interviews with Teachers**

<table>
<thead>
<tr>
<th>What kinds of changes have you made in your teaching practice?</th>
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<tbody>
<tr>
<td>Philosophical Shift</td>
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<tr>
<td>Shift from Teacher-Centered to Student-Centered Learning</td>
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<tr>
<td>Using Active Learning Strategies rather than Rote Learning</td>
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<tr>
<td>Emphasis on Relevance</td>
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<tr>
<td>Shift from Product Focus to Focus on Processes</td>
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<tr>
<th>What does your teaching look like now?</th>
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<tbody>
<tr>
<td>A Shift in Content Emphasis</td>
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<tr>
<td>Making Connections with Community</td>
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<tr>
<td>Changes in Class Format</td>
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<tr>
<td>Changes in Student Assessment</td>
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<tr>
<td>Incorporating Intellectual Processes</td>
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<tr>
<td>Changes in Teaching Methods</td>
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</tbody>
</table>

<table>
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<tr>
<th>What Support is needed for you to Continue Teaching This Way?</th>
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</thead>
<tbody>
<tr>
<td>Support for FCCLA</td>
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<tr>
<td>Professional Development</td>
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<tr>
<td>Communication with other Professionals</td>
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<td>Financial</td>
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<td>Time</td>
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<td>Curriculum</td>
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<tr>
<td>Media</td>
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<tr>
<td>School</td>
</tr>
</tbody>
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Conclusions and Discussion

Were the teachers able to continue their personal journey through the curriculum change process and make lasting changes in their practice to reflect their beliefs? The answer is an overwhelming “Yes!” Several conclusions can be made based on the data collected from this ten year follow-up study. Teachers experienced a readiness for change and a commitment to their profession supported changes they made. As teachers examined their beliefs and teaching practice, they made changes in their teaching practice.

Far fewer teachers in the group studied are using a technical approach; most of the teachers are teaching intellectual skills through the cognitive processing orientation. More teachers are aligning their curriculum orientation with the critical science perspective, the adopted curriculum approach in this midwestern state that combines the cognitive processes and social reconstruction orientations. More teachers are making their curriculum more personally relevant for students. Teachers who used the Cognitive Processes approach before the learning communities project continue to use it and possibly other approaches ten years later.

When teachers change the way they believe about teaching, their practice also changes. There is less emphasis on the technical aspect and more emphasis on engaging the minds of the students. Students know why they are learning and they are more involved in their own learning.

Teachers’ lessons include less “how-to” instruction, less emphasis on producing products, and fewer tests. Student learning experiences in their classes include more projects, questioning, writing, and community involvement. Those who have left the classrooms for non-formal educational environments also made positive changes in their orientations, further demonstrating the significance of the learning communities in assisting professional educators in aligning their approaches with their beliefs.

Continued professional development and opportunities to meet and share with other professionals are necessary for the teachers to be able to continue teaching the way they do as a result of the learning communities project. Other types of support are also needed, such as support from their schools and communities, students, time, curriculum, media, technology, support for FCCLA, and financial resources.

Educational researchers (Pehkonen & Törner, 1999; Guskey, 1985) describe support as a key element to the success of teachers’ curriculum change. Factors of personal readiness for teaching the way one believes and professional commitment were described as the facilitators of change, as well as dissatisfaction with current teaching, commitment to change, and a desire for revitalization of their program. Lichty (1996) noted that new challenges such as changing one’s teaching practice can involve discomfort and can be difficult for teachers. Lichty stated that without support, it is difficult for teachers to maintain their excitement and motivation to change and that continued support is a most crucial factor for change. The participants of this study cite support as a key factor in their curriculum orientation change process, and peers, administration, and family members supported them in the change process.

Four respondents indicated they had not changed their curriculum orientation since the curriculum change project. It is important to note, however, that these respondents held the cognitive processes orientation, either alone or in combination with other orientations, both prior to and ten years after the curriculum change project. Therefore, one might conclude the need for
change was greatly reduced because they had already implemented aspects of the critical science perspective into their curriculum prior to the workshops.

Pehkonen and Törner (1999) found that allowing teachers to self-reflect upon their current curriculum and then determine what areas needed improvement allows the teacher to determine what should actually be occurring in their classroom. Brozovsky (1998) noted that readiness to change in family and consumer sciences is complex, but necessary for implementation of the critical science perspective in the classroom. Brozovsky continued to say that because of the changes in beliefs that are necessary in order to change from the technical approach to the critical science approach to teaching, teachers may require on-going opportunities for self-reflection. The participants in this study support these findings, as they cited most frequently that “personal readiness for change to make teaching what it ought to be” was the primary influence in their curriculum change process. They also stated involvement in the learning communities was a key factor in their change process, supporting Brozovsky’s findings.

Self-reflection has been described as a method that can help in identifying “road blocks” that inhibit effective teaching and slow change from occurring. Nottingham (1998) explained that these road blocks can be identified, either individually or in combination, and either strengthened or eliminated to improve the effectiveness of student learning. The self-reflection process must be continually modified and updated in order to adapt to new experiences in everyday life. This constant updating allows teachers to identify areas that need change. The self-reflection process identifies areas of beliefs or practices that need improvement or elimination. The end result of this process may be the updating and changing of teachers’ practice to improve the effectiveness of student learning. Self-reflection causes teachers to refine and improve their performance. The more informed self-reflection there is, the more change should occur; however, the teachers’ perceptions and practices in this study do not support that theory. The frequency of the self-reflection process did not appear to affect whether or not the participants experienced change in their curriculum orientation or teaching practice. Interestingly, this reveals a contradiction to other results in this study that indicated the most frequently cited factor for facilitation of their curriculum change was “personal readiness for change to make teaching what it ought to be,” as it would seem logical to assume that reflection on their beliefs and teaching practice would have preceded the readiness to change.

**Recommendations for Practice and Future Research**

Because teachers who made changes to their teaching practice indicated their participation in the learning communities contributed greatly to their change process, it is recommended that learning communities be formed that include curriculum workshops for further examination of teachers’ personal teaching beliefs. In addition, sessions could be held at annual professional conferences to allow time for discussion among peers about strategies for continuing their current orientation or aligning it even more closely to the critical science perspective. Teacher educators and the state FCS consultant should continue to disseminate reminders and tips on the state-wide FCS teachers’ electronic mail listserv relating to critical science perspective, personal teaching beliefs, and teaching practice, so that teachers receive a constant flow of support to continually motivate and encourage them.

Many years have passed since the National Standards for Family and Consumer Sciences Education (V-TECS, 1998) were developed and the critical science perspective was advocated as one of two approaches, or orientations, to be used by professionals in our field in addressing the
national standards (the other being the competency approach). The current follow-up study was the story of one state’s journey of curriculum change. The journey is not over, but rather it will continue over time as society changes. What is the curriculum orientation used by FCS teachers in other states? Research regarding curriculum orientation and teaching practice on a national level will serve to enlighten the profession about the curriculum approaches being used by FCS teachers across the country. Studies could also be done to determine if teaching using the critical science perspective enhances student learning. A study could also be done to demonstrate the contributions made to families and society from such changes in curriculum orientations by FCS teachers.

References


About the Authors
Margaret Lichty, Ph.D., is an Associate Professor in the Department of Family and Consumer Sciences at California State University-Long Beach and serves as the FCSE Program Coordinator. Julie M. Johnson, Ph.D., is Professor and Chair of the Department of Family and Consumer Sciences at the University of Nebraska-Lincoln.