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Ethel Nellie Grant Jones

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Professional development: South Carolina family and consumer sciences secondary school teachers' experiences, facilitators, and opportunities

by

Ethel Nellie Grant Jones

A dissertation submitted to the graduate faculty in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY

Major: Family and Consumer Sciences Education
Major Professors: Ann Vail and Sally K. Williams

Iowa State University
Ames, Iowa
1999

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This is to certify that the Doctoral dissertation of

Ethel Nellie Grant Jones

has met the dissertation requirements of Iowa State University

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For Graduate College
DEDICATION

This work is dedicated to my parents, Houston W. Grant and the late Lucille B. Grant, my first teachers, for teaching me the power of prayer and for instilling in me the confidence and motivation for doing greater works.

This work is also dedicated to my spouse, Charlie L. Jones, for the love, support, sacrifice, patience, and endurance shown during this two-year period of being away in distance but not in heart. Most of all, I would like to dedicate this work to my Lord and Savior Jesus Christ for allowing me to be born with a purpose in mind, and for helping me discover and live out the purpose for which my life was intended.
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ABSTRACT

This study used a descriptive and correlational design to examine relationships among selected personal and professional characteristics, professional development experiences, facilitators, and opportunities of South Carolina secondary family and consumer sciences (FCS) secondary school teachers.

Two models were developed to suggest various relationships among key variables based on Fullan's (1995) idea about the potential and limits of professional development. One model focused on experiences, the other on opportunities.

A population of 496 middle, junior, senior, and occupational school FCS teachers in South Carolina's public schools yielded a sample of 217. A mailed questionnaire was used to collect data. A 71% (154) response rate was obtained. The data-producing sample consisted of 137 (63%) usable questionnaires.

Results indicated that half of the FCS secondary school teachers had a Master's degree. More African American, FCS teachers than White, non-Hispanic FCS teachers have participated in professional development experiences relative to professional self-evaluation, group learning, and teacher school improvement. The more education FCS teachers have the more likely they are to have participated in professional self-evaluation.
Full time teachers are less likely to have participated in experiences related to teacher school improvement, professional self-evaluation, and subject-matter content evaluation. Teacher leaders are more likely to have participated in professional development experiences related to teacher school improvement and research-based.

In conclusion, White, non-Hispanic FCS teachers responded differently than African American FCS teachers in relation to teacher self-improvement, school culture, and community outreach.

Implications for practice suggests FCS teachers should take charge of their learning and seek ways of justifying the importance of specific professional development related to their field of study. A modified Master of Education Degree Program with emphasis in FCS at South Carolina State University is one possible avenue for professional development.
CHAPTER I. INTRODUCTION

Justification and Rationale

In 1989, the nation's governors adopted six national education goals that were later incorporated into *Goals 2000: Educate America Act* (Goals 2000: Educate America Act, 1994). The United States Department of Education's October 1996 update indicates that the Goals 2000 Act was based on lessons learned from state and local education improvement efforts sparked by the Reagan Administration's 1983 report, *A Nation At Risk*. The nation's governors and President Bush, in laying the groundwork for the Act when they established national goals for education, also launched a grassroots' state and local effort to reach them. The Goals 2000 Act passed with strong bipartisan support in Congress and with the endorsement of every major national business, parent, and education organization. President Clinton signed it into law on March 31, 1994. The legislation ultimately defined eight goals after it was amended in 1996, adding teacher education, professional development, and parental participation (Goals 2000: A Progress Report, 1996; Prisons of Time, 1994; Byrd & McIntyre, 1997).

The professional development amendment is an essential element in educational reform because it focuses on helping to improve the nation's teaching force. The goal states, "By the year 2000, the Nation's teaching
force will have access to programs for the continued improvement of their professional skills, and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century. The objectives for achieving this goal include the following:

- All teachers will have access to preservice teacher education and continuing professional development activities that will provide such teachers with the knowledge and skills needed to teach to an increasingly diverse student population with a variety of educational, social, and health needs.

- All teachers will have continuing opportunities to acquire additional knowledge and skills needed to teach challenging subject matter and to use emerging new methods, forms of assessment, and technologies.

- States and school districts will create integrated strategies to attract, recruit, prepare, retrain, and support the continued professional development of teachers, administrators, and other educators, so that there is a highly talented work force of professional educators to teach challenging subject matter.

- Partnerships will be established, whenever possible, among local educational agencies, institutions of higher education, parents, and local labor, business, and professional associations to provide and support programs for the professional development of educators” (National Education Goals Panel, 1998, p. vii).

These objectives suggest that individual, personal and professional characteristics of practicing teachers are crucial to the transformation of schools. Examples of these characteristics and other related characteristics
include knowledge, skills, personality, personal life needs, available educational initiatives, leadership styles, climate for teaching and learning, school governance, structures, and school-community connections (Zimpher & Howey, 1992).

In this changing climate of systematic reform, professional development opportunities, as they are now known, do not provide teachers and administrators with the range of skills and foundations in content areas that will be necessary to achieve the goals (Houghton & Goren, 1995). Principles that serve as criteria to prepare educators to help students achieve high standards of learning and development better are

- focus on teachers as central to student learning, yet include all other members of the school community;
- focus on individual, collegial, and organizational improvement;
- respect and nurture the intellectual and leadership capacity of teachers, principals, and others in the school community;
- reflect best available research and practice in teaching, learning, and leadership;
- enable teachers to develop further expertise in subject content, teaching strategies, use of technologies, and other essential elements in teaching to high standards;
- promote continuous inquiry and improvement embedded in the daily life of schools;
plan collaboratively, by those who will participate in and facilitate that development;

• require substantial time and other resources;

• live by a coherent long-term plan;

• evaluate on the basis of impact on teacher effectiveness and student learning, and this assessment guides subsequent professional development efforts. (Mission and Principles of Professional Development, 1995, p. 1).

Other criteria for high-quality professional development principles include content knowledge and skills for teachers that are sustained over time, feedback to teachers, a network of support, support for teacher-directed instruction and collaborative evaluation of student work that guides and changes practice (Lewis, 1999). The National Staff Development Council, a professional association that produces research publications, suggests building quality professional development programs by using professional development principles that can serve as the basis for policy making in federal and state programs (Lewis, 1999).

Research reported by the National Foundation for the Improvement of Education (1996) clearly suggests that student achievement is a priority for teachers. Seventy-three percent of teachers indicated that, when they study, it is to improve student achievement. Improving their teaching skills was listed next, followed by increased knowledge of content. As schools and communities set higher standards for students, higher standards must also
be set for teachers to facilitate students reaching the higher academic goals. Making sure that teachers receive the necessary professional preparation facilitates success for all.

Among family and consumer sciences (FCS) educators nationwide, it is hypothesized that FCS educators in the southeast region of the United States are disproportionately under-represented among those who have earned advanced education and participated in other professional development activities. Of 496 South Carolina secondary school FCS teachers employed in formal educational settings, half lack advanced degrees (South Carolina State Department of Education, 1996). Yet, as suggested by Goals 2000 there is an increasing demand for well-prepared teachers to help meet individual and family needs through education.

Opportunities to gain an understanding of underlying knowledge and skills being learned in continuing professional development of teachers should be built into a comprehensive change process that gives focus to improved student learning and teaching quality. A restructured professional development curricula, access to a diversity of delivery technologies, increased leadership education for FCS teachers, professional development centers, and release time for professional development are ways to achieve this goal. In other words, teachers need time, support and opportunities to evaluate their own teaching methods, develop and learn new subject matter, work with others to design and implement school improvement and
stay abreast of the most recent information in their areas of expertise (Houghton & Goren, 1995).

**Purpose of Study and Research Questions**

The overall purpose of this study was to examine the professional development experiences, facilitators and opportunities of South Carolina secondary school FCS teachers. Professional development can be viewed as the "glue" that holds education reform together during and after the process has been implemented. Contemporary educational reforms emphasize changes across various institutions and those who are willing to take part in educational reforms must change as well. Such reform requires teachers to collaborate, and improve what is taught and how it might be taught. Reform also helps teachers describe their roles, identify facilitators of professional development, and identify professional development opportunities of interest.

To understand better the evolving professional development needs of FCS secondary school teachers in South Carolina, nine research questions were formulated to examine the professional development of these teachers:

1. What are the personal and professional characteristics of the teachers?
2. In what professional development experiences are teachers currently involved?
3. What are the underlying factors that represent professional development experiences for the teachers?

4. What are the relationships between personal and professional characteristics and professional development experiences?

5. What professional development facilitators exist in the settings in which teachers work?

6. What are the underlying factors that represent professional development facilitators?

7. In what professional development opportunities are teachers interested?

8. What are the underlying factors that represent professional development opportunities of interest?

9. What are the relationships between personal and professional characteristics and professional development opportunities?

**Definition of Terms**

To understand the purpose and research questions, professional development terms have been defined to provide clarity. The terms are: 

*Professional development* - continuous teaching and learning that takes place within the context of a professional community and is nurtured and developed from both in and out of school settings (Lieberman, 1996).

*Professional development experiences* - activities that involve teachers in a
variety of professional development tasks. These experiences include but are not limited to observing, assisting, planning, teaching, and evaluating specific problems or areas that enable them to acquire the knowledge and skills necessary to perform effectively in specific roles. (Association of Teacher Educators, 1986).

*Professional development opportunities* - a myriad of favorable circumstances available to individuals in a professional environment that promote professional competence.

*Professional development facilitators* - organizations, associations, school, or people who assist or promote others in the progress of an endeavor. Professional development facilitators were developed in this study to measure professional development opportunities promoted by school districts.

**Assumptions**

Requesting the list of secondary school FCS educators from the South Carolina Department of Education was assumed to be an accurate means for identifying the population. Using random sampling was judged to be fair and free of bias since all secondary FCS teachers had an equal chance of appearing in the sample. It was also assumed that professional development for FCS secondary school teachers in South Carolina exists, and that a wide variation of experiences, facilitators, and opportunities of
interest exist among these teachers relative to the school in which they are employed.

Limitations

This study was limited to South Carolina because of the need to investigate the professional development experiences, facilitators and opportunities that exist for FCS teachers in this state, and to validate the number of FCS secondary school teachers holding advanced degrees. Therefore, the generalizability of the results will be restricted to this population.
CHAPTER II. LITERATURE REVIEW

Introduction

Professional development of teachers as we once knew it involved the application of a body of knowledge to known situations in order to identify realistic solutions to problems (Lester, 1995). Professional development is an important factor in improving the nation's teaching force. It's contribution to building the knowledge base of teachers varies though in meaning among educators (Loyd, 1996). For example, Houghton and Goren (1995) define professional development as a broad range of activities that increases the skills and knowledge of teachers, administrators, and school staff. French (1997) saw professional development as helping to enable teachers to move to the next level of expertise and ability. This view regarding professional development describes teachers as self-motivated, collegial, voluntary, and processing relevant knowledge, skills, and attitudes. The definitions of professional development vary in activities, level of expertise, and ability of educators.

In this review of literature, teacher professional development experiences, facilitators, and opportunities will be explored. The information will be presented in five sections. The first section will provide an overall perspective of professional development. The second section will
address an overall perspective on professional development experiences. The third section will give focus to professional development facilitators. In the fourth section, professional development opportunities will be addressed. The fifth section will focus on family and consumer sciences (FCS) teachers' professional development.

**Professional Development**

Professional development is a critical component in nearly every modern proposal for educational improvement (Guskey & Huberman, 1995). It is most beneficial when it is accessible to all educators and is a part of a system-wide effort to improve teacher recruitment, selection, preparation, licensing and certification, and continuous learning (Improving America's School, 1996). "Effective professional development is dependent upon institutional and financial support of teacher's professional development and a school culture that nurtures teacher learning" (Barlow, 1999, p. 47). In addition, school districts need to carefully analyze data about student progress, school improvement, and staff development in order to guide their decisions about what teachers need to know to help students be successful. The promotion of high levels of learning for all students requires teachers receiving abundant professional development using technology effectively (Lewis, 1999; Barlow, 1999).
Teachers may or may not be academically prepared for the subject areas they teach. The 1998 National Education Goals Panel indicates that the percent of secondary school teachers holding either undergraduate or graduate degrees in their main teaching assignment is decreasing. In 1991, 66% of degrees were in their main teaching assignment in comparison to 63% in 1994, a decrease of three percent. Other areas of focus in which teachers felt unprepared include teaching diverse students with limited English-proficiency; and meeting the needs of disabled students (Barlow, 1999; Committee on Labor and Human Resources United States Senate, 1997). An accurate assessment of what our teachers feel prepared to do well and their needs relative to future professional development is necessary.

With Congress likely to finance professional development of teachers, the quality of that development is becoming an issue. A consensus on what makes quality professional development includes enhancing teacher content knowledge and skills that are sustained over time, providing feedback to teachers, creating networks of support, and encouraging teacher-directed learning (Lewis, 1999). Professional development can be the "glue" that holds education reform together during the building process, and keeps it together until the reform has been fully implemented (Finch, 1999).

All reform efforts involve change and those who are willing to take
part in education reform know they must change as well. It is imperative that continuous professional development of teachers be the center of any effort to improve education. Implementation of such requires teachers to build capacity to change and evolve as their educational institutions experience change (Finch, 1999).

**Professional Development Experiences**

Research reveals that teachers participate in professional development experiences that are available for continuous learning (Fullan & Hargraves, 1991). Examples include reflective practices, personal journals, action research, innovative mentoring and peer settings (Fortino, 1996; Crowther, 1998). Other experiences include in-service teacher workshops (Utah State Board of Education, 1980; Arends, 1982; Culver, 1985; Finch, Schmidt, & Moore, 1997; Birkvad, 1997), coursework (Arends, 1982; Regan-Smith, 1994), clinics, seminars, and summer school (Arends, 1982), postgraduate classes (Birkvad, 1997), peer observations, sharing students work with grade-level teams, performance assessments, and study group participation (Crowther, 1998). Hall and McKeen's (1991) study revealed that teachers viewed informal in-service education as the least effective source for learning new knowledge and skills, while personal interactions with peers were viewed as the most effective means of attaining professional growth.
A number of first-year teachers identified their professional development experience as a “struggle for survival” (Fullan & Stiegelbauer, 1991) which suggests that their main objective in relation to professional development was how to get through their first year of teaching. Helping novice teachers with the transition includes programs that are mentor-driven, a professional development experience. In response to increasing concerns about teacher development experiences, several states have begun experimenting with teacher mentoring programs. Even though most southeastern states have some sort of new teacher induction programs, none of them provide time during the school day to have a solid mentoring program (Columbia Group, 1998b).

Mentoring is a strategy that is designed to instill a positive attitude and pride in individuals (Askew, 1996). An effective mentoring relationship, however, provides the novice professional (mentee) with a caring listener, critical friend and concerned adviser (Inana, 1983; Roberts, 1995; Nielsen & Montecinos, 1995). Mentors gain professional visibility and provide a means of critical reflection related to their work practices, gaining a fresh view on crucial issues (Askew, 1996). The result is professional and personal development for both parties.

There is much to be learned from those who have been in the teaching field for an extensive amount of time (Betts & Norquest, 1997). An accumulation of life experiences accounted for most of the socializing
experiences of teachers (Loyd, 1996). Restructuring the school environment and the teaching profession itself can promote norms of collegiality and continuous improvement breaking down the isolation of classroom teachers from their peers (Committee on Education and Labor House of Representatives, 1988).

An experiential approach to professional development based upon Kolb's (1984) learning definition was used to evaluate programs offered to professionals in the middle of their careers. Experiential learning was viewed as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). Results suggest that the process of learning and adaptation, however, were the most important. In other words, "knowledge is not to be acquired or transmitted, but continuously created" (Betts & Norquest, 1997, p. 50).

Helping teachers maintain and enhance their knowledge base and skills should continue for some and begin for others so that they will be able to handle new challenges with ease (Birkvad, 1997). Various and high quality professional development experiences needed to prepare teachers cannot be provided by a single institution, organization, agency, or individual (Association of Teacher Educators, 1986). A number of parties must be involved in teacher professional development.
Professional Development Facilitators

Understanding how educational reform relates to professional development facilitators takes on many different forms. For the purpose of this section, facilitators will be explored in relation to teacher-leadership, collaborative schools, and professional development schools.

Teacher-Leadership

Teacher-leadership is a new, emerging concept and role in many schools (Chapin, 1996). Shanker (1990) indicates that the more teachers take on responsibilities in schools, the more new positions arise such as teacher-experts, teacher mentors, or lead teachers. These educators influence policies and practices within a number of schools and districts. Lead-teachers assume the role of advisors to administrators, provide insight related to professional development needs of teachers, and influence programmatic decisions (Crowther, 1998). The majority of teacher-leaders are classroom teachers whose involvement with colleagues occurs primarily before and after school hours. For example, teachers who served as members of study groups facilitated by district instructional coordinators have been successful in obtaining released time for learning, bringing about changes in teacher behavior and providing follow-ups to improve the study group experience (Crowther, 1998).
South Carolina, Tennessee, Virginia and Utah are experimenting with various forms of career ladder programs. Features of these programs include creating and paying for non-classroom instructional roles for teachers such as developing new curricula materials, engaging in staff development, leading instructional improvement teams, or providing support for new teachers (Committee on Education and Labor House of Representatives, 1988). Providing resources for teachers to attend professional conferences and then share new information with colleagues or even providing release time for teachers to act as a mentor for other teachers can contribute to higher levels of learning for all (French, 1997).

As a result, lead teachers can perform professional development for groups of teachers in their subject discipline or assist curriculum developers with the creation of new materials. They could extend an open invitation for new teachers to come into their classes to observe how they execute their classes, or conduct seminars on how to match students with the most appropriate learning strategy (French, 1997).

**Collaborative Schools**

The culture of schools historically has isolated the teacher in the classroom. The desire for increased and varied responsibility within teaching has traditionally been accomplished by leaving the classroom and advancing into an administrative role (Bartunek, 1990). This has not
always been the desire of a career teacher. A number of educators believe in focusing their efforts on improving the work environment of teaching. Today, schools are initiating norms and practices that encourage teachers to collaborate with one another and administrators on school improvement through collaborative schools (Scott & Smith, 1987).

The collaborative school is a concept that has emerged in the literature where cultures are "built in" to the day-to-day interactions among staff who are preoccupied with continuous learning (Fullan, 1995), and teachers and administrators routinely work together to promote effective teaching and learning. A description of a collaborative school requires teachers to engage in frequent, continuous, and concrete talk about teaching experiences; be provided with useful critiques of their teaching; plan, design, research, evaluate, and prepare teaching materials together; and teach each other the practice of teaching (Scott & Smith, 1987).

Teachers value time to collaborate with their colleagues. Research results revealed that over 50% of teachers who participated in a common planning period for team teaching once a week reported that their teaching was improved extensively compared to those who participated only a few times a year (Barlow, 1999).

The National Staff Development Council believes that 25% of teachers' work time should be devoted to learning and collaboration with colleagues. For example, the Council assumes that teachers time is spent
planning with their colleagues to write curricula, work on school improvement plans, implement classroom-related research, participate in study groups, mentor a new teacher, observe and coach each other, and other similar uses. In other words, professional development should be "job-embedded". Therefore, school systems should put at least ten percent of their budget toward staff professional development, making sure that professional development is linked to the improvement of student learning and evaluated on a regular basis (Lewis, 1999).

Collaborative partnerships among schools, higher education institutions, businesses, and other relevant entities are being formed (Barlow, 1999). Partnerships promote learning opportunities for all individuals who will affect student achievement and address diverse educational needs. Effective partnership initiatives have been designed to enhance college readiness, increase standards, improve reading, writing, and math skills, encourage joint curriculum development efforts, and provide peer encouragement and counseling tools derived from research. If collaboration encourages combining and sharing of expertise and brings that collective expertise to bear on critical issues, then the search for common ground can be facilitated, shared values can be identified, innovative solutions to critical problems can be derived, and management of interdependence can be found (Vaughn, 1994). Professional development offers opportunities for lifelong learning for teachers, students, businesses,
and the community. These teams of individuals together can provide the knowledge and skills necessary for all to be successful.

Collaboration between higher education and primary and secondary (K-12) education can occur at any organizational level, but the potential asset may be the greatest when colleges of education create partnerships directly with local schools (Justiz, 1997). Such partnerships are powerful means for significant and lasting personal growth that can, through relationships, lead to substantial organizational change (Christenson, Eldredge, Ibom, Johnston, & Thomas, 1996). Assuming new and ambiguous roles without abandoning the traditional institutional roles requires being able to see oneself and one's work differently, if true organizational change is to be achieved.

Professional Development Schools

Professional development schools are another facilitator of professional development that can be defined as a functioning, exemplary public school that has three specific objectives: student achievement, teacher induction, and practice improvement (Abdal-Haq, 1992). Their function is to "(a) provide clinical setting for preservice education; (b) engage in professional development for practitioners; (c) promote and conduct inquiry that advances knowledge of schooling; and (d) provide an exemplary education for some segment of pre K-12 students" (Clark, 1996, p. 244).
Professional development schools are an innovative way of thinking about teaching and learning, and a way of involving everyone in the process (Mantle-Bromley, 1998). Collaboration occurs in professional development schools among school districts, colleges, and teacher unions; they are sites where researchers, clinical faculty, and practitioners work together to increase the knowledge base of the profession and prepare future practitioners (Abdal-Haqq, 1992). Professional development schools have become a place of practice for participants, the place where individual expertise and contributions are recognized and then carefully and confidently scrutinized for improvement.

Teachers benefit from exposure to preservice candidates and their mentors because the secondary school teachers' professional development school participation extends far beyond mentoring in the classroom. A professional development school is viewed as a process of continual improvement where participants talk as much about their next level of work as they do about their present. Their conversation includes the way students treat them, teaching strategies, peer observations better ways of sharing, and so forth. A professional development school is very similar to what is called a "learning community" where everyone is a learner (Mantle-Bromley, 1998).

Professional development schools will become learning centers for the community that will serve a diverse group of clientele and adopt new
learning and instructional goals. Teachers will share the role of teaching with others, teachers and administrators will collaborate with each other to learn, parents will go to the school to learn, and members of the community will share their expertise in the schools (Shanker, 1990). Understanding the external conditions that could affect student performance and the implications for instruction, school administration, and the relationship between the school and other agencies will need to be clarified as collaboration extends itself beyond the school and community in which it resides to meet the overall needs of children, families, and other adults (Hixon & Tinzmann, 1990).

College and university faculty and administrators are experimenting with the establishment of these professional development learning centers in response to the national challenge of improving the quality of teacher preparation programs (Calder, 1990). The focus of these centers is supervised clinical experiences and theory to research via practice. In other words, the professional development learning center provides an environment where the most current research-based instructional practices and programs can be observed and experienced by those preparing to be teachers and administrators. Individuals being prepared for leadership roles will need to understand the concept of professional development learning centers and their specific function in the preservice education of classroom teachers. It is crucial that these individuals show competence in skills
needed to work collaboratively in a school environment, and convey a broad understanding of the total curriculum and its' impact on student learning.

These centers also provide an environment where teachers use principles and theories to analyze, hypothesize, and improve instructional and learning conditions (Calder, 1990). Professional development for educators should provide clinical experiences that are sequenced, analytical and rigorous by including a broad cultural and specialized knowledge along with guided practice.

In professional preparation for the clinical experiences, programs must emphasize analytical experiences in order for practitioners to be able to combine bodies of knowledge into strategies for meeting evolving circumstances. The program emphasis should be related to teachers' learning and desire to know why things are the way they are, and satisfying the passion to increase their knowledge base for improvement of existing conditions (Calder, 1990). The programs should be developmental in scope and sequential in nature, providing individuals with various professional development opportunities that facilitate the transition of theory and research into practice.

**Professional Development Opportunities**

Today, educational reform efforts require teachers to redefine their roles, responsibilities, opportunities, and to seek ways of acquiring new
knowledge and skills via professional development (Improving America's Schools, 1996). Members of the National Education Association (NEA) created the National Foundation for the Improvement of Education in 1996 when education reform forced it's way onto the American political agenda. The foundation's mission focuses on promoting excellence in teaching and learning via providing teachers, other school employees, and higher education faculty and staff with opportunities to develop and test solutions to the challenges facing American public education. These opportunities include technical assistance, electronic networking, professional collaboration, grants, and support for developing leadership roles (The National Improvement of Education, 1996).

Professional development offers teachers the opportunity for lifelong learning in their careers (Finch, 1999). However, teachers must be actively involved in the learning process, having opportunities to discuss, reflect upon, and experiment with innovative instructional approaches.

Another professional development opportunity is building-level professional development in which more states are becoming involved. Currently, the majority of teacher development comes through in-service development opportunities provided by schools, and funded locally via state or federal monies (Columbia Group, 1998a).

Major factors encouraging participation in continuous professional development opportunities include keeping up-to-date in specified fields of
practice, initiating new problems and issues that need to be addressed, maintaining contact with others in specified fields, examining impartial information, and seeking personal enjoyment and enrichment (Lamble & Mills, 1981; Beavers & Charlson, 1986).

The National Education Goals Panel Report (1998) revealed that in the state of South Carolina, the baseline of teachers holding a degree in their main teaching assignment in 1991 was 69% in comparison to 63% in 1994. These data suggest that there was a decrease of six percent in the progress made in relation to degree status. The 1998 Goals Report further reveals that the baseline of teachers in South Carolina holding a teaching certificate in their main teaching assignment was 98% in 1991, compared to 95% in 1994 a decrease of three percent in the progress made toward teachers teaching in their area of expertise. The states' baseline of teachers participating in professional development programs in one or more selected topics was 81% in 1991. In 1994, the percentage of participation in selected topics of interest included the uses of technology (42%), methods of teaching subject-matter field (61%), in-depth study in subject-matter field (24%), and student assessment (46%).

Improving technical competence, learning about new trends and initiatives, obtaining graduate credits and/or attaining an advanced degree were the most important professional development teacher goals as viewed
by teachers (Monahan, 1993). Settings for achieving these goals included conferences, workshops and seminars.

**Professional Development in Family and Consumer Sciences Education**

**Background**

Studies indicate that family and consumer sciences (FCS) educators contributed to research in the area of professional development even when the research was not always conceptualized as related to the broad arena of professional development (Beavers & Charlson, 1986; Loyd, 1996). Since in-service education is viewed as the common focused professional development activity, definitions related to inservice education have been provided. Newton (1980) defined in-service education as the "process of intentional refinement and continued professional growth after entry into a professional position" (p. 54). In-service education also includes "all activities that are designed to contribute to the improvement and effectiveness of teachers in the practice of their profession" (Brown & Okey, 1973, p. 54).

Fedje's (1994) study proposes three views related to the intent of inservice education. The first view suggests in-service as a "quick-fix in response to leaders' perception of problem" (p. 90). The second view indicates that in-service is "a means of solving teachers' perceived
problems" (p. 90). The third view suggests that the intent of in-service education develops "the self transformative process of each participant" (p. 90).

In-service education is how researchers have been conceptualizing professional development, but in actuality, inservice education is only a small entity of professional development. However, in-service education must serve the continuous improvement of education, and the personal and professional development of individual teachers (Beavers & Charlson, 1986).

Professional development in the form of inservice education suggests that inservice providers such as teacher educators, administrators, state department educators, or city supervisors made decisions about teachers' learning in a top-down model. These in-service providers were often given the tasks of determining and planning programs for professional development. Today, planning for the professional development of teachers can be improved by asking individual teachers about their needs and experiences (Johnson, Carlson, & DeLay, 1996).

**Professional Development Experiences, Facilitators, and Opportunities**

To provide clarity and conciseness related to FCS professional development, these next sections focus on professional development experiences, facilitators, and opportunities as they related to FCS.
Previous research suggests the need to plan different professional development experiences for both beginning and experienced teachers (Sinder, 1986; Loyd, 1988; Martin, 1990; Gray, 1991) as well as traditional and non-traditional-aged teachers (Bendixen-Noe, 1992). The reason there needs to be a variation is based on individual career goals, aspirations, school culture, and other relevant components that characterize these teachers.

FCS teachers prefer inservice education in the form of conferences, county workshops, media and journals (Rose, 1988). Loyd (1988) revealed that 48% of 167 teachers/participants preferred professional development activities that were personal-related, 21% preferred those that were college and university related, 13% preferred those that were non-degree in-service related, and eight percent preferred those that were related to professional associations. In another study, Betts and Norquest (1997) found that a one-year international trip experience is another professional development experience that met and exceeded expectations of the participants. The participants viewed the experience as being a very positive, professional development experience.

In terms of facilitating professional development for FCS teachers, Beavers and Charlson (1986) proposed in-service programs be planned off-campus, held during the summer for the full day for both credit and non-
credit. One to five days was the preferred time for both credit and non-credit offerings.

In 1986, the areas of need for professional development appear to be more general and relate to the overall aspect of the family. The issues/needs in 1996 appeared to be centered more on the individual (Loyd, 1996). Programs that give attention to individual differences and personal characteristics and needs in planning for the professional development of teachers will likely increase program effectiveness (Veenman, 1984; Sinder, 1986; Heath, Camp, & Barber, 1988; Martin, 1990; Gray, 1991; Bendixen-Noe, 1992). However, FCS educators can become so overwhelmed by their day-to-day problems that they lose the broad perspective and reflective attitude necessary to remain aware of the broad range of developments affecting their field of study and career development (Lamble & Mills, 1981). Therefore, establishing a teaching career ladder that keeps some of the best teachers in the classroom along with providing mentors for teachers will be necessary as identified in French's 1997 study.

In terms of professional development opportunities for FCS educators, Beavers and Charlson (1986) indicated that priority needs for secondary school teachers in the area of home economics, also known as family and consumer sciences, include topics related to stress, energy conservation in the home, and children's guidance. Loyd's (1996) study identified FCS teachers' professional development needs as more techniques
for discipline, student motivation, stress management, and recognition and respect from students. Other concepts of professional development concerns included program evaluation and learner assessment (Beavers & Charlson, 1986). In the areas of teaching process and professional concerns, instructional techniques for different ages of learners, and choosing, obtaining, utilizing, and evaluating instructional materials ranked highest.

**Summary**

Professional development can be viewed as the "glue" that holds education reform together during and after the process has been implemented. It is continuous teaching and learning that takes place within the context of a professional community and is nurtured and developed from within and outside of school settings.

Contemporary educational reforms emphasize changes across various institutions; therefore those who are willing to take part in educational reforms must change as well. Such reform requires teachers to collaborate and improve what is taught and how it might be taught. Reform also helps teachers describe their roles and identify facilitators and opportunities of interest related to professional development.

Most professional development and school improvement activities continue to leave teachers' knowledge and skills untouched (Sparks, 1997). Professional development must change if it is to prepare teachers to
successfully implement content and methodology. It must produce results, and encompass high expectations for the learning and performance of students and teachers.

Providing the most effective professional development experiences, facilitators, and opportunities will be a challenge. Professional development helps teachers maintain, enhance their knowledge base, and provide continuous learning that keeps them current in their academic field of study. It involves teachers in the identification of what they need to learn, and in the development of learning experiences in which they will be involved which is a crucial element in terms of the success of professional development.

Professional development provides opportunities to gain an understanding of the theory underlying the knowledge and skills being learned as well. Working collaboratively requires teachers to engage in continuous conversations about their teaching experiences, which is one way of describing collaborative school, facilitator of professional development. In relation to other professional development efforts, FCS educators review the trends related to professional development practices, revise their programs according to the needs of the individual and family, and implement what is needed or in the best interest of the profession.
CHAPTER III. METHODOLOGY

Introduction

In this chapter, the methodology used to collect and analyze data is described. The description includes the research design, population and sample, instrument development, pilot survey, data collection, and data analysis.

This study was a collaborative effort between the Family and Consumer Sciences (FCS) Department of South Carolina State University, the FCS Section of the Office of Occupational Education in the South Carolina State Department of Education, and the Department of FCS Education and Studies at Iowa State University. Support for data collection and data analysis was provided by the American Vocational Association FCS Education Graduate Fellowship and the Iowa State University College of FCS Graduate Research Fund.

The overall purpose of this study was to examine the professional development experiences, facilitators and opportunities of South Carolina secondary school FCS teachers. Professional development can be viewed as the "glue" that holds education reform together during and after the process has been implemented. Contemporary educational reforms emphasize changes across various institutions; therefore, those who are willing to take part in educational reforms must change as well. Such reform requires
teachers to collaborate and improve what is taught and how it might be taught. Reform also helps teachers describe their roles and identify facilitators and opportunities of interest related to professional development.

More specifically, the study was designed to address the following research questions:

1. What are the personal and professional characteristics of the teachers?

2. In what professional development experiences are teachers currently involved?

3. What are the underlying factors that represent professional development experiences for the teachers?

4. What are the relationships between personal and professional characteristics and professional development experiences?

5. What professional development facilitators exist in the settings in which teachers work?

6. What are the underlying factors that represent professional development facilitators?

7. In what professional development opportunities are teachers interested?

8. What are the underlying factors that represent professional development opportunities of interest?
9. What are the relationships between personal and professional characteristics and professional development opportunities?

**Research Design**

A descriptive and correlational research design was used in this study. In descriptive research, an attempt is made to obtain data from members of a sample to determine the current status of the population with respect to one or more variables. A large number of questions were asked about the issue (professional development) to determine how the population distributes itself on several variables (Fraenkel & Wallen, 1996).

In correlational research, scores are obtained from at least two variables for each subject and then used in pairs of scores to calculate a correlation coefficient (McMillan & Schumaker, 1999). Correlational research permits the researcher to study several variables simultaneously.

This study described how certain characteristics were distributed within the group, and investigated relationships among variables that were based on theory, research, and experiences of teachers. Two models, one focused on professional development experiences and one on professional development opportunities, were developed to suggest various relationships among key variables based on Fullan's (1995) idea about the potential and limits of professional development.

First, a model suggesting relationships between personal and
professional characteristics and professional development experiences was developed. The model consisted of hypothesized variables that influence professional development experiences as suggested in the literature (Figure 3.1).

**Personal Characteristics** (Independent Variables)

- Gender
- Age
- Ethnic Background
- Current Marital Status
- Number of Children
- Ages of Children
- Place of Residence

**Professional Characteristics** (Independent Variables)

- Educational Level
- Teaching Salary
- Years of Teaching Experience
- Current Teaching Status
- Current Position
- Family and Consumer Sciences Courses Taught
- Professional Development Facilitators

**Professional Development Experiences** (Dependent Variable)

Figure 3.1 Professional development experiences model.
A second model suggesting relationships between personal and professional characteristics and professional development opportunities of interest was developed. This model included variables of interest relative to personal and professional characteristics and types of professional development opportunities of interest (Figure 3.2).

**Personal Characteristics** (Independent Variables)

- Gender
- Age
- Ethnic Background
- Current Marital Status
- Number of Children
- Ages of Children
- Place of Residence

**Professional Characteristics** (Independent Variables)

- Educational Level
- Teaching Salary
- Years of Teaching Experience
- Current Teaching Status
- Current Position
- Family and Consumer Sciences Courses Taught
- Professional Development Facilitators

**Professional Development Opportunities of Interest** (Dependent Variable)

Figure 3.2 Professional development opportunities of interest model.
Population and Sample

The population for this study consisted of 496 middle, junior high, senior high, and occupational school FCS teachers in South Carolina public schools. The population was established by referring to the 1998 South Carolina FCS Teacher Directory data bank (South Carolina State Department of Education, 1998). Using the Krejcie and Morgan (1970) table for determining sample size from a given population, a random sample of 217 South Carolina secondary school FCS teachers was selected from a population of 496.

Salant and Dillman's (1994) four requirements relative to population and three-step process in sampling were used. The requirements are 1) sample being large enough to yield the desired level of precision; 2) people in population having an equal chance of being selected; 3) questions being asked in ways that enable the people in the sample to respond willingly and accurately; and 4) characteristics of people selected in the sampling process who choose not to participate in the survey are similar to the characteristics of those who do choose to participate. Using the three-step process in sampling, the participants were selected. First, a target population of 496 was identified based on the purpose of the study. Second, a list frame was put together of the target population. Third, the sample was selected. Teachers' names and addresses were selected from the 1998 South Carolina FCS Teacher Directory data bank provided by the South Carolina State
Department of Education, Office of Occupational Education. A computer-based (SAS functional key) random generator function was used to select sample from the population for this study (SAS User's Guide Basics Version 5 Ed., 1985, p. 269).

Instrument Development

Instruments used in two similar studies were reviewed and evaluated (Braskamp & Maehr, 1988; Monahan, 1993; The National Foundation for the Improvement of Education, 1996). The researcher concluded that neither could be used in their entirety because they did not answer the research questions. Permission was given to use portions of the National Foundation for the Improvement of Education (NFIE)(1996) instrument relative to professional development experiences, facilitators, and opportunities (Appendix A).

An initial pilot survey was reviewed, modified, and developed from the NFIE survey. Once the instrument was developed, a committee of university professors in education and FCS education critiqued and provided input. Guidelines established by Salant and Dillman (1994) were used to conduct the pilot.

The questionnaire was thirteen (13) pages in length. The title on the front cover of the questionnaire was "Professional Development: A 1999 Survey of South Carolina Secondary School Family and Consumer Sciences
Teachers". On the back cover was a line for the questionnaire number used for the purpose of coding, copyright year, and author. The questionnaire was printed on slate blue paper with black ink. The questionnaire booklet consisted of five sections: background information, professional development practices, facilitators, opportunities, and demographics (Appendix B).

The background information section was used to give the respondents an overview about professional development, personal and professional characteristics of teachers affecting the transformation of schools, sponsors, the importance of participating in the study, time it would take to complete the instrument, and directions about when and what to do with the completed questionnaire.

The professional development practices section was developed to measure teachers' pedagogical practices that would be helpful in relation to improving their teaching. The professional development facilitators' section was developed to measure professional development opportunities facilitated by their school districts. The professional development opportunities section was developed to measure professional development topics that could be offered via seminar, course, or program. The demographics section was developed to determine personal and professional characteristics of teachers (see Appendix B).

Questions were ordered and arranged as suggested by Salant and
Dillman (1994). The headings of each section were printed in bold letters along with the key to record their responses. In the demographic section, all demographics were bolded. Respondents were asked to use a numeric key to record their response using the given scale of 1-4; the exception was the professional development facilitators’ section which asked them to circle the appropriate response using the key, Y = Yes and N = No.

In the professional development practices section and the professional development opportunities section, the respondents were asked to list additional experiences that contributed to improvement of their teaching and opportunities that would be of interest to them. The demographic section required the respondents to place a check mark in the spaces provided and write in the responses for some questions.

The questionnaire was submitted to a panel of five (5) university professors in the Iowa State University College of FCS and the College of Education to establish content and face validity. Content-related validity refers to the content and format of the instrument that should be consistent with the definition of the variable and the sample of subjects to be measured. Face validity suggests that the instrument "looks like" (according to the respondents) it is measuring what it is designed to measure (Frankel & Wallen, 1996).
Pilot Study

The pilot study included a group of 40 Iowa secondary school FCS teachers who were asked to complete the questionnaire and submit comments related to the questionnaire. Of the 40 questionnaires sent to FCS secondary school teachers, 33 (82.5%) responded within the time frame suggested without a follow-up postcard or telephone call. A one dollar monetary incentive was provided in each questionnaire. An incentive accounts for a response rate increase of five to eight percent (Salant & Dillman, 1994).

An analysis was performed on the pilot study data to measure internal validity, one form of construct validity. Cronbach’s Alpha was used for the reliability coefficient. The alpha coefficients were as follow: professional development practices .74 based on 18 variables and n=21, professional development facilitators .62 based on 10 variables and n=30, and professional development opportunities .89 based on 22 variables and n=31. Nunnally (1967) suggested that an Alpha of .5 - .6 would be high enough in the early stages of research.

As a result of written feedback from the pilot study, the researcher revised the professional development questionnaire based on the recommendations of the 33 respondents and the panel of five university professors. The revisions included making some minor grammatical changes in the background information and inserting the researchers'
name, affiliation, telephone number, and email address on page one of the questionnaire.

Pages two and three of the questionnaire included making necessary revisions to facilitate clarity and consistency. Page two of the questionnaire required changing professional development practices to professional development experiences; this change provided greater clarity and consistency with the directions. The four-point scale (i.e., 1 = not helpful at all, 2 = not very helpful, 3 = somewhat helpful, and 4 = very helpful) was changed to a five-point scale using the same key except for the addition of 5 = have not had this experience.

On page three of the questionnaire, the wording of question 11 was changed from “distance learning” to “distance education experience”. In question 13, “other teachers to learn their techniques to see a variety of teaching, management, and interaction styles” was changed to “others for teaching, management, and interaction styles”. Question 14 wording was changed from “increase your knowledge through independent study” to “study a topic independently”. Question number 15 was shortened from “conduct action research, that is trying out an idea in practice with the goal of improving or changing something by trying to have a real effect on a situation”, to “conduct action research”. Question 16 was changed from “participate in a graduate program” to “earn an advanced degree”. Also on page three of the questionnaire, four additional questions were added as
follow: 1) receive feedback from administrator or supervisor after evaluation; 
2) participate in work-site internship; 3) participate in job-shadowing experience; and 4) read professional journals. This increased the number of variables from 18 in the pilot study to 22 in the revised professional development study.

On pages four and five of the questionnaire, the directions were revised to ensure clarity and consistency. The questions were revised grammatically and were formatted so that the responses to the questions appear on the right of the page. On page five, one additional item was added “provide funding for professional development”. This increased the number of variables from 10 to 11. Also, space for additional experiences relative to personal and professional development was added for consistency.

Pages six and seven of the questionnaire included several changes. First, the four-point scale (i.e., 1 = not at all interested, 2 = not very interested, 3 = somewhat interested, 4 = very interested) was revised to a five-point scale with the addition of 5 = extremely interested. Second, the directions were revised for clarity and consistency. Third, the content listed as opportunities were reformatted. Fifth, “service learning programs” on page 6 was changed to “service learning”. On page seven, “student assessment” was changed to “learner assessment”. The directions were altered for clarity, with the “very interested (VI) and somewhat interested
Items on page eight and nine, focused on demographics and very few changes were made. The age categories were revised to reflect even numbers at the beginning of each category (i.e., under 30, 30 to 39, 40 to 49, 50 to 59, 60 and over). "Marital status" was changed to "current marital status". On page nine, a question about age of children living at home was revised to include ages of children in college.

**Human Subjects Review**

Approval to conduct the study was granted by the Iowa State University Committee on Use of Human Subjects in Research (Appendix C). After the committee carefully scrutinized the questionnaire, cover letter, and co-sponsor's correspondence, it was concluded that the subjects used in this study were adequately exempted from harm and danger, and the suggested procedure relative to the format for reporting data ensured confidentiality of the respondents.

**Data Collection**

Data collection for this study was implemented via a mailed questionnaire during January, February, and March 1999. One week
before the questionnaires were mailed, a post card notifying subjects of their selection to participate in the study was sent (Appendix D).

Next, a packet was developed. It contained a personalized and signed cover letter on original South Carolina State University FCS Department letterhead. The text explained the purpose and the importance of the study and assured confidentiality of the responses. Questionnaires were numbered to expedite data collection in relation to identifying respondents and non-respondents. Other items in the packet included the questionnaire, a one-dollar monetary incentive, and a postage-paid return envelope. One week after the postcard was sent, the mailing of the questionnaire packet took place (Appendix E).

The questionnaire was sent to 217 South Carolina secondary school FCS teachers. Correspondence was sent from the Office of Occupational Education, South Carolina State Department of Education in relation to the mailing list (Appendix F). By March 1, (114) 53% of the 217 had responded. One week later, a postcard was sent to the participants who had not responded, reminding them to complete and return the questionnaire as quickly as possible (Appendix G); an additional (12) six percent were received.

One and a half weeks after the reminder postcard was sent, one hundred subjects received a second questionnaire packet. This mailing included all materials except the monetary incentive. (Appendix H). As a
result of the second mailing, 11 (five percent) more questionnaires were received. From the 217 invited respondents selected at random from the population of 496, 154 (71%) responses were received; 137 (89%) were usable and 17 (11%) were not. Referred to as frame error, some responses were not usable due to factors such as retirement, incorrect address, degree status, and subject matter being taught. In other words, there was a discrepancy between the intended target population and the actual population from which the sample was drawn (Miller, 1999).

Miller and Smith (1983) suggest ways of handling non-response issues, some of which include comparing early to late respondents, comparing respondents to non-respondents, comparing respondents to the population, double dipping, and ignoring. "Research has shown that late respondents are often similar to non-respondents" (Miller & Smith, 1983, p. 48). For the purpose of this study, early respondents were compared to late respondents on the dependent variables professional development experiences and professional development opportunities in order to ensure non-response errors had not occurred (see Table 3.1).

The data from the late respondents were compared to the data from the early respondents and were found to be similar. Therefore, one can conclude that differences do not exist between respondents and non-respondents. The data were judged to be generalizable to the population from which the sample was drawn (Miller & Smith, 1983).
Table 3.1. Comparison of early to late respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Development Experiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early</td>
<td>107</td>
<td>37.07</td>
<td>12.31</td>
<td>.052</td>
<td>.820</td>
</tr>
<tr>
<td>Late</td>
<td>26</td>
<td>37.69</td>
<td>9.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Development Opportunities of Interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early</td>
<td>110</td>
<td>69.30</td>
<td>12.31</td>
<td>.010</td>
<td>.919</td>
</tr>
<tr>
<td>Late</td>
<td>26</td>
<td>69.00</td>
<td>9.40</td>
<td></td>
<td></td>
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</tbody>
</table>

Reliability coefficients were calculated for the instrument using Cronbach's alpha. The reliability coefficient for the 22-item professional development experiences variable was .85 based on 110 cases. For the variable, professional development facilitators, the 11-item variable produced a reliability coefficient of .66 based on 123 cases. The 22-item variable, professional development opportunities, produced a reliability coefficient of .92 based on 133 cases. Nunnally (1967) suggested that .5 to .6 would be a sufficiently high enough reliability in the early stages of research.

**Data Analysis**

The data recorded on the completed questionnaires were prepared and then coded for statistical analyses. Using the statistical program, SPSS 8.0 (1997), data were entered into the computer database as the
questionnaires were returned. A number of statistical analyses were used to answer the research questions (see Table 3.2). The analyses for this study include descriptive statistics (frequencies, percentages and means), and inferential statistics (factor analysis and correlation). For the purpose of this section, factor analysis and correlation will be described, not in detail, but as it relates to this study.

Factor analysis is a technique that determines whether or not a number of variables can be described by a much fewer number of factors. In this study, factor analysis established the inter-relatedness of the professional development teacher experiences, facilitators, and opportunities. This analysis procedure assumes that the observed variables are linear combinations of some underlying (hypothetical) factors. Some of the factors are assumed to be in common to two or more variables and some are assumed to be unique to each variable (Kim & Mueller, 1978). In other words, only common factors contribute to the covariation among the observed variables.

Next, correlation refers to "a measure of association between two variables; generally assumed to be the product-moment r (or Pearson's r); and is equivalent to the covariance between two standardized variables. Correlation may also be used as a general term for any type of linear association between variables" (Kim & Mueller, 1978, p. 83). In this study, the correlations between personal and professional characteristics and
Table 3.2. Research questions and statistical analyses

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the personal and professional characteristics of the teachers?</td>
<td>Frequencies, Means, Percentages</td>
</tr>
<tr>
<td>2. In what professional development experiences are teachers currently involved?</td>
<td>Frequencies, Means, Percentages</td>
</tr>
<tr>
<td>3. What are the underlying factors that represent professional experiences for the teachers?</td>
<td>Factor Analysis</td>
</tr>
<tr>
<td>4. What are the relationships between personal and professional characteristics and professional development experiences?</td>
<td>Correlation</td>
</tr>
<tr>
<td>5. What professional development facilitators exist in the settings in which teachers work?</td>
<td>Frequencies, Means, Percentages</td>
</tr>
<tr>
<td>6. What are the underlying factors that represent professional development facilitators?</td>
<td>Factor Analysis</td>
</tr>
<tr>
<td>7. In what professional development opportunities are teachers interested?</td>
<td>Frequencies, Means, Percentages</td>
</tr>
<tr>
<td>1. What are the underlying factors that represent professional development opportunities of interest?</td>
<td>Factor Analysis</td>
</tr>
<tr>
<td>2. What are the relationships between personal and professional characteristics and professional development opportunities?</td>
<td>Correlation</td>
</tr>
</tbody>
</table>

professional development facilitators and professional development experiences were examined.
CHAPTER IV. FINDINGS AND DISCUSSION

Introduction

The overall purpose of this study was to examine the professional development experiences, facilitators, and opportunities of South Carolina secondary school family and consumer sciences (FCS) teachers. Nine research questions guided this study and will be used to organize the findings and discussion. In the first section of this chapter, descriptive statistics for FCS secondary school teachers’ personal and professional characteristics, professional development experiences, facilitators, and opportunities are presented. In the next sections analyses of possible relationships and underlying factors representing professional development experiences, facilitators, and opportunities are presented.

Research Question One

What are the personal and professional characteristics of the teachers?

Personal Characteristics

Descriptive statistics in Table 4.1 are used to present the personal characteristics of South Carolina FCS secondary school teachers. The personal characteristics include gender, age, ethnic background, current marital status, number of children, ages of children, and place of residence.
Table 4.1. Personal teacher characteristics (N=137)

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>131</td>
<td>95.6</td>
</tr>
<tr>
<td>Males</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 30</td>
<td>5</td>
<td>3.6</td>
</tr>
<tr>
<td>30-39</td>
<td>17</td>
<td>12.4</td>
</tr>
<tr>
<td>40-49</td>
<td>57</td>
<td>41.6</td>
</tr>
<tr>
<td>50-59</td>
<td>54</td>
<td>39.4</td>
</tr>
<tr>
<td>60 and Over</td>
<td>4</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Ethnic Background</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>109</td>
<td>79.6</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>26</td>
<td>19.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Current Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single, Never Married</td>
<td>13</td>
<td>9.5</td>
</tr>
<tr>
<td>Married</td>
<td>101</td>
<td>73.7</td>
</tr>
<tr>
<td>Separated</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Divorced</td>
<td>19</td>
<td>13.9</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Number of Children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Children</td>
<td>19</td>
<td>13.9</td>
</tr>
<tr>
<td>1 Child</td>
<td>23</td>
<td>16.8</td>
</tr>
<tr>
<td>2 Children</td>
<td>58</td>
<td>42.3</td>
</tr>
<tr>
<td>3 Children</td>
<td>24</td>
<td>17.5</td>
</tr>
<tr>
<td>4 Children</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td>No Response</td>
<td>7</td>
<td>5.1</td>
</tr>
<tr>
<td><strong>Youngest Child Living In Home</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under Age 10</td>
<td>20</td>
<td>14.6</td>
</tr>
<tr>
<td>10 to 15</td>
<td>17</td>
<td>12.4</td>
</tr>
<tr>
<td>16 to 26</td>
<td>19</td>
<td>13.9</td>
</tr>
<tr>
<td>No Response</td>
<td>81</td>
<td>59.1</td>
</tr>
<tr>
<td><strong>Oldest Child Living In Home</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under Age 15</td>
<td>17</td>
<td>12.4</td>
</tr>
<tr>
<td>15 to 21</td>
<td>30</td>
<td>21.9</td>
</tr>
<tr>
<td>22 to 34</td>
<td>16</td>
<td>11.7</td>
</tr>
<tr>
<td>No Response</td>
<td>74</td>
<td>54.0</td>
</tr>
<tr>
<td><strong>Place of Residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>37</td>
<td>27.0</td>
</tr>
<tr>
<td>Small Town</td>
<td>54</td>
<td>39.4</td>
</tr>
<tr>
<td>Urban</td>
<td>16</td>
<td>11.7</td>
</tr>
<tr>
<td>Suburban</td>
<td>28</td>
<td>20.4</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>1.5</td>
</tr>
</tbody>
</table>
Gender. One hundred and thirty one (95.6%) South Carolina FCS secondary school teachers are females and six (4.4%) are males.

Age. The largest percent of teachers (41.6%) are 40-49 years of age. The second largest group of teachers (39.4%) is 50-59 years of age. The third largest group (3.6%) of teachers which is in fact quite small, is under age 30, while the remainder (2.9%) are 60 and over.

Ethnic Background. The largest percent of teachers (79.6%) in this study are White, non-Hispanic. The second largest group (19%) of teachers is Black, non-Hispanic, also known as African Americans. Less than one percent of the teachers are Hispanics.

Current Marital Status. The current marital status of the respondents revealed that the largest percent (73.7%) of teachers are married. The number of divorced teachers represented 13.9% of the respondents. The number of single, never married respondents represented 9.5%. Only 1.5% of the respondents represented the separated group.

Number of Children. The majority of the FCS secondary school teachers have children. Forty-two percent have two children. Eighteen percent have three children, and 17% have at least one child. Fourteen percent of the respondents have no children. Only 4% have four or more children.

Youngest Child Living in Home. The ages of the youngest children living at home ranged from less than one year old to age 26. Twenty
(14.6%) respondents have children living at home under the age of ten, followed by 19 (13.9%) who have children at home ages 16 to 26, and 17 (12.4%) who have children at home ages 10-15.

**Oldest Child Living in Home.** The ages of the oldest children living at home ranged from one to 34. Seven (12.4%) participating FCS teachers have children under the age of 15. Thirty (21.9%) participating FCS teachers have children living in their home who are 15-21 years of age, and 16 participating FCS teachers have children living in their home who are 22-34 years of age.

**Place of Residence.** The majority (39.4%) of the FCS secondary school teachers live in small towns. The second largest percent (27%) of teachers live in rural areas, followed by 20% living in suburban areas. The smallest percent (11.7%) of respondents live in urban areas.

**Professional Characteristics**

Descriptive statistics are used to present the professional characteristics of South Carolina FCS secondary school teachers (see Table 4.2). The professional characteristics include educational level, annual salary, years of teaching experience, current teaching status, current position. The number of FCS subject-matter courses taught is also presented using descriptive statistics.
Table 4.2. Professional teacher characteristics (N=137)

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>19</td>
<td>13.9</td>
</tr>
<tr>
<td>Bachelor's degree + 18</td>
<td>42</td>
<td>30.7</td>
</tr>
<tr>
<td>Master's degree</td>
<td>40</td>
<td>29.2</td>
</tr>
<tr>
<td>Master's degree + 30</td>
<td>31</td>
<td>22.6</td>
</tr>
<tr>
<td>Educational specialist</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Annual Teaching Salary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $19,999</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>$20,000 to $24,999</td>
<td>5</td>
<td>3.6</td>
</tr>
<tr>
<td>$25,000 to $29,999</td>
<td>16</td>
<td>11.7</td>
</tr>
<tr>
<td>$30,000 to $34,999</td>
<td>39</td>
<td>28.5</td>
</tr>
<tr>
<td>$35,000 to $39,999</td>
<td>43</td>
<td>31.4</td>
</tr>
<tr>
<td>$40,000 to $44,999</td>
<td>26</td>
<td>19.0</td>
</tr>
<tr>
<td>$45,000 to $49,999</td>
<td>5</td>
<td>3.6</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Years of Teaching Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 7 years</td>
<td>12</td>
<td>8.8</td>
</tr>
<tr>
<td>7 - 11 years</td>
<td>20</td>
<td>14.6</td>
</tr>
<tr>
<td>12 - 16 years</td>
<td>28</td>
<td>20.4</td>
</tr>
<tr>
<td>17 - 21 years</td>
<td>21</td>
<td>15.3</td>
</tr>
<tr>
<td>22 - 26 years</td>
<td>37</td>
<td>27.0</td>
</tr>
<tr>
<td>27 and above</td>
<td>15</td>
<td>11.0</td>
</tr>
<tr>
<td>No Response</td>
<td>4</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Current Teaching Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>134</td>
<td>97.8</td>
</tr>
<tr>
<td>Part time</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Current Position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior high school</td>
<td>57</td>
<td>46.0</td>
</tr>
<tr>
<td>Middle school</td>
<td>33</td>
<td>26.6</td>
</tr>
<tr>
<td>Junior high school</td>
<td>4</td>
<td>3.2</td>
</tr>
<tr>
<td>Occupational senior high school</td>
<td>18</td>
<td>14.5</td>
</tr>
<tr>
<td>Combination of the above</td>
<td>9</td>
<td>7.3</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>0.8</td>
</tr>
</tbody>
</table>
**Education Level.** The majority 42 (30.7%) of the FCS secondary school teachers have a Bachelor's degree plus 18 hours of graduate credit. The number of FCS secondary school teachers with a Master's degree is 40 (29.2%). Thirty-one (22.6%) of FCS teachers have a Master's degree plus 30 hours of additional graduate credit, 19 (13.9%) have at least a Bachelor's degree, 2 (1.5%) have a Specialist degree, 1 (0.7%) has a Doctorate degree, and 2 (1.5%) did not respond.

**Annual Teaching Salary.** The largest group of FCS teachers, 43 (31.4%) reported earnings between $35,000 and $39,000. The next largest group 39 (28.5%) reported earnings between $30,000 and $34,999. The third largest group 26 (19%) reported earnings between $40,000 and $44,999. The fourth largest group of FCS teachers, 16 (11.7%) reported earnings between $25,000 and $29,999. Five (3.6%) FCS teachers reported earnings between $20,000 and $24,000, five (3.6%) reported earnings between $45,000 and $49,999, 1 (0.7%) reported earnings of less than $19,999 while 2 (1.5%) did not respond.

**Years of Teaching Experience.** Twelve (8.8%) of the participating teachers reported having less than seven years of experience, while 20 (14.6%) have between 7 and 11 years of experience. Twenty-eight (20.4%) of FCS teachers reported having between 12 and 16 years of teaching experience, while 21 (15.3%) have 17 to 21 years of experience. Thirty-seven (27%) of FCS teachers indicated that they have between 22 and 26
years of experience, and 15 (11%) have 27 years and above of teaching experience. Only 4 (2.9%) did not respond.

**Current Teaching Status.** The majority of the FCS secondary school teachers 134 (97.8%) teach full time. Only 2 (1.5%) teach part time.

**Current Position.** Fifty-seven (46%) of the responding teachers teach at the senior high school level. Thirty-three (26.6%) respondents teach at the middle school level, four (3.2%) teach at the junior high level, and 18 (14.5%) teach at an occupational senior high school, sometimes referred to as a career vocational center. Nine responding FCS teachers (7.3%) teach at a combination of the above levels. One (0.8%) FCS teacher taught in an elementary school and the other one (0.8%) taught at a correctional facility.

**Family and Consumer Sciences Subject-Matter Courses Taught.** FCS teachers teach a wide variety of FCS courses (see Table 4.3). Courses taught by South Carolina FCS secondary school teachers revealed the majority, 58 (42.3%), teaching nutrition and food sciences, closely followed by 55 (40.1%) teaching comprehensive FCS. Thirty-three (24.1%) teach family life education, twenty-four (17.5%) teach parenthood education, twenty-three (16.8%) teach child development, life skills and occupational culinary arts tie at 19 (13.9%) while 18 (13.1%) teach clothing and textiles. School-to-work is taught by 13 (9.5%) of the participating teachers, housing and home furnishings is taught by 11 (8%), both occupational childcare
Table 4.3. Family and consumer sciences subject-matter courses taught (N=137)

<table>
<thead>
<tr>
<th>Courses</th>
<th>Yes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition and Food Science</td>
<td>58</td>
<td>42.3</td>
</tr>
<tr>
<td>Comprehensive Family and Consumer Sciences</td>
<td>55</td>
<td>40.1</td>
</tr>
<tr>
<td>Family Life Education</td>
<td>33</td>
<td>24.1</td>
</tr>
<tr>
<td>Parenthood Education</td>
<td>24</td>
<td>17.5</td>
</tr>
<tr>
<td>Child Development</td>
<td>23</td>
<td>16.8</td>
</tr>
<tr>
<td>Life Skills</td>
<td>19</td>
<td>13.9</td>
</tr>
<tr>
<td>Occupational Culinary Arts</td>
<td>19</td>
<td>13.9</td>
</tr>
<tr>
<td>Clothing and Textiles</td>
<td>18</td>
<td>13.1</td>
</tr>
<tr>
<td>School-to-Work</td>
<td>13</td>
<td>9.5</td>
</tr>
<tr>
<td>Housing and Home Furnishings</td>
<td>11</td>
<td>8.0</td>
</tr>
<tr>
<td>Occupational Child Care Services</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td>Consumer Education</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td>Technology</td>
<td>3</td>
<td>2.2</td>
</tr>
<tr>
<td>Occupational Clothing Services</td>
<td>3</td>
<td>2.2</td>
</tr>
<tr>
<td>Non-Family and Consumer Sciences</td>
<td>10</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Services and consumer education are taught by 6 (4.4%), and both technology and occupational clothing services are taught by 3 (2.2%) each. Only ten (7.3%) FCS teachers teach courses outside of FCS such as health and correction resources.

In summary, the personal characteristics of South Carolina secondary school family and consumer sciences teachers indicate a female-dominated profession (95.6%). The majority of participating FCS secondary school teachers is between the ages of 40 and 49 (41.6%), White, non-Hispanic (79.6%), married (73.7%), and has two children (42%).

In relation to professional characteristics, at least one-third of the teachers have 18 hours above the Bachelor's degree and approximately one-third have Master's degrees. A majority of teachers (59.9%) earned between
$30,000 and $40,000. The largest percent (27%) of teachers have 22-26 years of experience. The largest number 57 (46%) work at the senior high school level. They teach a wide variety of family and consumer sciences courses, with 42.3% teaching foods and nutrition and food sciences, followed by 40% teaching comprehensive family and consumer sciences. A third course being taught by FCS teachers in South Carolina is family life education (24%), then parenthood education (17.5%) and child development (16.8%). It should be noted that courses taught by the respondents do overlap to some extent. In other words, some FCS teachers teach more than one FCS subject-matter courses. The literature indicates that a number of FCS programs still focus on the traditional foods (Cargin & Williams, 1984). This study confirms the foods and nutrition courses.

**Research Question Two**

In what professional development experiences are teachers in South Carolina currently involved?

**Professional Development Experiences**

FCS teachers were involved in an extensive number of professional development experiences with various degrees of helpfulness. Table 4.4 presents frequencies that were used to determine the professional development experiences in which South Carolina FCS teachers were
involved. A likert scale was used to describe the level of helpfulness of each experience - 1= Not helpful at all, 2=Not very helpful, 3= Somewhat helpful, and 4= Very helpful. Means, numbers, and percentages are reported in Table 4.5. Those who had not had the experience indicated in the professional development experiences section of the questionnaire were coded as no response/system missing because they could not contribute to this portion of the analyses.

Table 4.4. Frequency of professional development experiences (N=137)

<table>
<thead>
<tr>
<th>Professional Development Experiences</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take college or university course</td>
<td>132</td>
<td>96</td>
</tr>
<tr>
<td>Read professional journals</td>
<td>129</td>
<td>95</td>
</tr>
<tr>
<td>Attend a professional conference</td>
<td>129</td>
<td>95</td>
</tr>
<tr>
<td>Receive feedback from supervisor after evaluation</td>
<td>128</td>
<td>94</td>
</tr>
<tr>
<td>Use new technologies</td>
<td>125</td>
<td>92</td>
</tr>
<tr>
<td>Participate in seminars on education-related issues</td>
<td>114</td>
<td>84</td>
</tr>
<tr>
<td>Develop school curricula</td>
<td>113</td>
<td>83</td>
</tr>
<tr>
<td>Observe others for teaching, management, and interaction styles</td>
<td>113</td>
<td>83</td>
</tr>
<tr>
<td>Study a topic independently</td>
<td>106</td>
<td>78</td>
</tr>
<tr>
<td>Earn an advanced degree</td>
<td>99</td>
<td>73</td>
</tr>
<tr>
<td>Provide or receive peer reviews</td>
<td>93</td>
<td>68</td>
</tr>
<tr>
<td>Conduct program evaluations</td>
<td>93</td>
<td>68</td>
</tr>
<tr>
<td>Work to develop new learner assessments</td>
<td>90</td>
<td>66</td>
</tr>
<tr>
<td>Establish and maintain a mentoring relationship</td>
<td>79</td>
<td>58</td>
</tr>
<tr>
<td>Serve as a member of a study group</td>
<td>75</td>
<td>55</td>
</tr>
<tr>
<td>Lead a seminar for other teachers</td>
<td>70</td>
<td>51</td>
</tr>
<tr>
<td>Participate in a job-shadowing experience</td>
<td>61</td>
<td>45</td>
</tr>
<tr>
<td>Participate in a work-site internship</td>
<td>59</td>
<td>43</td>
</tr>
<tr>
<td>Engage in distance education experience</td>
<td>58</td>
<td>43</td>
</tr>
<tr>
<td>Conduct action research</td>
<td>57</td>
<td>42</td>
</tr>
<tr>
<td>Participate in a study tour</td>
<td>41</td>
<td>30</td>
</tr>
<tr>
<td>Participate in an on-line teacher discussion group</td>
<td>31</td>
<td>23</td>
</tr>
</tbody>
</table>
Table 4.5. Levels of helpfulness of professional development experiences (N=137)

<table>
<thead>
<tr>
<th>Professional Development Experiences</th>
<th>Mean</th>
<th>Not helpful at all</th>
<th>Not very helpful</th>
<th>Somewhat helpful</th>
<th>Very helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Take college or university course</td>
<td>3.67</td>
<td>0</td>
<td>2</td>
<td>1.5</td>
<td>39</td>
</tr>
<tr>
<td>Read professional journals</td>
<td>3.38</td>
<td>0</td>
<td>11</td>
<td>8.0</td>
<td>58</td>
</tr>
<tr>
<td>Attend a professional conference</td>
<td>3.60</td>
<td>0</td>
<td>9</td>
<td>6.6</td>
<td>33</td>
</tr>
<tr>
<td>Receive feedback from supervisor after evaluation</td>
<td>3.51</td>
<td>3</td>
<td>10</td>
<td>7.3</td>
<td>34</td>
</tr>
<tr>
<td>Use new technologies</td>
<td>3.87</td>
<td>0</td>
<td>1</td>
<td>0.7</td>
<td>14</td>
</tr>
<tr>
<td>Participate in seminars on education-related issues</td>
<td>3.53</td>
<td>0</td>
<td>6</td>
<td>4.4</td>
<td>42</td>
</tr>
<tr>
<td>Develop school curricula</td>
<td>3.58</td>
<td>0</td>
<td>1</td>
<td>0.7</td>
<td>38</td>
</tr>
<tr>
<td>Observe others for teaching, management, and interaction styles</td>
<td>3.63</td>
<td>0</td>
<td>5</td>
<td>3.6</td>
<td>32</td>
</tr>
<tr>
<td>Study a topic independently</td>
<td>3.42</td>
<td>0</td>
<td>4</td>
<td>2.9</td>
<td>54</td>
</tr>
<tr>
<td>Earn an advanced degree</td>
<td>3.63</td>
<td>0</td>
<td>7</td>
<td>5.1</td>
<td>23</td>
</tr>
<tr>
<td>Provide or receive peer reviews</td>
<td>3.24</td>
<td>3</td>
<td>12</td>
<td>8.8</td>
<td>38</td>
</tr>
<tr>
<td>Conduct program evaluations</td>
<td>3.29</td>
<td>1</td>
<td>6</td>
<td>4.4</td>
<td>51</td>
</tr>
<tr>
<td>Work to develop new learner assessments</td>
<td>3.31</td>
<td>1</td>
<td>6</td>
<td>4.4</td>
<td>47</td>
</tr>
<tr>
<td>Establish and maintain a mentoring relationship</td>
<td>3.47</td>
<td>1</td>
<td>6</td>
<td>4.4</td>
<td>27</td>
</tr>
<tr>
<td>Serve as a member of a study group</td>
<td>3.23</td>
<td>1</td>
<td>9</td>
<td>6.6</td>
<td>37</td>
</tr>
<tr>
<td>Lead a seminar for other teachers</td>
<td>3.39</td>
<td>2</td>
<td>5</td>
<td>3.6</td>
<td>27</td>
</tr>
<tr>
<td>Participate in a job-shadowing experience</td>
<td>3.57</td>
<td>1</td>
<td>4</td>
<td>2.9</td>
<td>15</td>
</tr>
<tr>
<td>Participate in a work-site internship</td>
<td>3.63</td>
<td>1</td>
<td>1</td>
<td>0.7</td>
<td>17</td>
</tr>
<tr>
<td>Engage in distance education experience</td>
<td>3.05</td>
<td>3</td>
<td>9</td>
<td>6.6</td>
<td>28</td>
</tr>
<tr>
<td>Conduct action research</td>
<td>3.14</td>
<td>1</td>
<td>8</td>
<td>5.8</td>
<td>30</td>
</tr>
<tr>
<td>Participate in a study tour</td>
<td>3.63</td>
<td>0</td>
<td>3</td>
<td>2.7</td>
<td>9</td>
</tr>
<tr>
<td>Participate in an on-line teacher discussion group</td>
<td>3.03</td>
<td>3</td>
<td>4</td>
<td>2.9</td>
<td>14</td>
</tr>
</tbody>
</table>
The number of FCS teachers involved in professional development experiences ranged from 31 to 132 in the 22 categories of professional development experiences. The level of helpfulness indicated by the FCS teachers revealed relatively high means that ranged from 3.03 to 3.87. The teachers deemed all experiences at least somewhat helpful.

**College or University Course.** Out of 137 respondents, 132 (96%) had the experience of taking a college or university course. Ninety-one (66.4%) thought was very helpful while 39 (28.5%) said it was somewhat helpful, and two (1.5%) indicated that the course was not very helpful. The literature supported coursework as a primary professional development experience in which teachers have participated (Arends, 1982; Regan-Smith, 1994).

**Professional Journal Reading.** Out of 137 respondents, 129 (95%) read a professional journal. Sixty (43.8%) indicated that it was very helpful. Fifty-eight (42.3%) said it was somewhat helpful, and 11 (8.0%) indicated that it was not very helpful.

**Professional Conference.** Of 137 respondents, 129 (95%) respondents attended a professional conference. Eighty-seven (63.5%) indicated that attending a professional conference was very helpful, 33 (24.1%) indicated it was somewhat helpful, and only nine (6.6%) reported that attending a professional conference was not helpful at all.
Feedback from Supervisor or Administrator. One hundred twenty-eight received feedback from a supervisor or an administrator. Eighty one (59.1%) indicated that receiving feedback from a supervisor or administrator after evaluation was helpful while 34 (24.8%) indicated that receiving feedback from supervisor or administrator was somewhat helpful. Ten (7.3%) indicated that receiving feedback from a supervisor or administrator was not very helpful, and only three (2.2%) indicated that it was not helpful at all.

Using New Technologies. In relation to using new technologies such as computers and teleconferencing, 125 indicated they used new technologies. The majority 110 (80.3%) indicated that using new technologies was very helpful. Fourteen (10.2%) indicated that it was somewhat helpful and only one (.07%) indicated that it was not very helpful. Even though the respondents have limited experience with technology, (Barlow, 1999) study indicated that teachers know how helpful technology could be in relation to improving their teaching which supports the findings in this study.

Participating in Seminar on Education Related Issues. Of the 114 (84%) teachers who participated in a seminar, 66 (48.2%) indicated that this sort of experience was very helpful, 42 (30.7%) indicated that it was somewhat helpful, and six (4.4%) indicated that it was not very helpful. Arends (1982) found that teachers have participated in professional
development experiences that were education-related in the form of seminars which supports the findings in this study.

**Developing School Curricula.** Of the 113 (83%) participants who developed school curricula, 71 (51.8%) indicated that developing school curricula was very helpful, 38 (27.7%) indicated that it was somewhat helpful, one (0.7%) indicated that it was not very helpful.

**Observing Other Teachers.** In relation to observing others for teaching, management, and interaction styles, results indicate that 113 (83%) had opportunities to observe other teachers. Seventy-six (55.5%) believed that this experience was very helpful, 32 (23.4%) believed that this experiences was somewhat helpful, and five (3.6%) indicated it was not very helpful. Teachers have participated in professional development experiences that relate to observing other teachers which is supported by the literature (Crowther, 1998; Mantle-Bromley, 1998).

**Studying a Topic Independently.** One hundred and six (78%) teachers had the experience of studying a topic independently. Forty-eight (35%) indicated that it was very helpful, 54 (39.4%) indicated that it was somewhat helpful, and four (2.9%) indicated that it was not very helpful.

**Earning an Advanced Degree.** Of the 99 (73%) teachers who responded affirmatively to this category, 69 (50.4%) indicated that earning an advanced degree was very helpful, 23 (16.8%) stated that it was somewhat helpful, seven (5.1%) indicated that it was not very helpful.
Monahan (1993) study supported the findings in this study that earning an advance degree is very helpful and important to teachers.

**Providing or Receiving Peer Reviews.** Out of 93 teachers who provided or received peer reviews, 40 (29.2%) indicated that the experience was very helpful, 38 (27.7%) indicated that the experience was somewhat helpful. Twelve respondents (8.8%) indicated that the experience was not very helpful and 3 (2.2%) indicated that the experience was not helpful at all. Mantle-Bromley (1998) study supported the findings in this study that receiving peer reviews were very helpful.

**Conducting Program Evaluations.** Of the 93 teachers who responded to conducting program evaluations, 35 (25.5%) indicated that it was very helpful, 51 (37.2%) indicated that it was somewhat helpful, six (4.4%) indicated that it was not very helpful, and one (0.7%) indicated that it was not helpful at all. Beavers and Charlson (1986) study supported the findings in this study.

**Working to Develop New Learner Assessments.** Ninety (66%) teachers indicated they had worked to develop new learner assessments. Thirty-six (26.3%) indicated that this experience was very helpful, 47 (34.3%) indicated that this experience was somewhat helpful, six (4.4%) indicated that this experience was not very helpful, and one (0.7%) indicated that it was not helpful at all. Beavers' and Charlson's (1986) study supported the findings in this study where learner assessment has been
found to be helpful.

**Establishing and Maintaining a Mentoring Relationship.** Of the 79 (58%) respondents, 45 (32.8%) indicated that establishing and maintaining a mentoring relationship was very helpful. Twenty-seven (19.7%) indicated that the experience was somewhat helpful, six (4.4%) indicated that it was not very helpful, and one (0.7%) indicated that the experience was not helpful at all. The literature supported the finding of this study that mentoring is a professional development experience in which teachers participate (Fortino, 1996; Crowther, 1998).

**Serving as a Member of a Study Group.** Of 75 (55%) FCS teachers who responded to serving as a member of a study group, 28 (20.4%) indicated that it was very helpful. Thirty-seven (27%) indicated that this experience was somewhat helpful, nine (6.6%) indicated that it was not very helpful, and one (0.7%) indicated that it was not helpful at all. The literature supported study group participation by teachers as a professional development experience that is very helpful (Crowther, 1998).

**Leading a Seminar for Other Teachers.** Seventy (51%) teachers had lead a seminar for others. Thirty-six (26.3%) respondents indicated that leading a seminar for other teachers was very helpful. Twenty-seven (19.7%) indicated that this experience was somewhat helpful, five (3.6%) indicated that this experience was not very helpful, and two (1.5%) indicated that this experience was not helpful at all.
Participating in a Job-Shadowing Experience. Sixty-one (45%) participated in a job shadowing experience. Forty-one (29.9%) of 61 family and consumer sciences teachers believed that participating in a job-shadowing experience was very helpful. Fifteen (10.9%) believed that it was somewhat helpful, four (2.9%) believed that the experience was not very helpful, one (0.7%) believed that it was not helpful at all.

Participating in a Work-site Internship. Fifty-nine (43%) teachers participated in a work-site internship. Forty (29.2%) believed that participating in a work-site internship was very helpful. Seventeen (12.4%) believed that it was somewhat helpful, one (0.7%) believed that the experience was not very helpful, and one (0.7%) believed that it was not helpful at all.

Engaging in a Distance Education Experience. Fifty-eight (43%) engaged in a distance education experience. Eighteen (13.1%) stated that engaging in a distance education experience was very helpful. Twenty-eight (20.4%) stated that it was somewhat helpful, nine (6.6%) stated that the experience was not very helpful, and three (2.2%) stated that it was not helpful at all.

Conducting Action Research. Fifty-seven (42%) teachers conducted action research. Eighteen (13.1%) indicated that conducting action research was very helpful. Thirty (21.9%) indicated that it was somewhat helpful, eight (5.8%) indicated that the experience was not very helpful, and
one (0.7%) stated that it was not helpful at all. Teachers have conducted action research according to the literature (Fortino, 1996; Crowther, 1998) which is supported the findings in this study.

**Participating in a Study Tour.** Forty-one (30%) teachers participated in a study tour. Twenty-nine (21.2%) indicated that participating in a study tour was very helpful. Nine (6.6%) indicated that it was somewhat helpful, and 3 (2.2%) indicated that the experience was not very helpful.

**Participating in an On-line Teacher Discussion Group.** Thirty-one (23%) of the teachers had participated in an on-line teacher discussion group. Eleven (8%) indicated that participating in an on-line teacher discussion group was very helpful. Fourteen (10.2%) indicated that it was somewhat helpful, four (2.9%) indicated that the experience was not very helpful, and three (2.2%) indicated that the experience was not helpful at all.

**Research Question Three**

What are the underlying factors that represent professional development experiences for teachers?

To address this question, data for professional development experiences (survey items 1-22) were submitted to a factor analysis. Factor analysis was considered appropriate for this question because it “groups” variables according to their natural and underlying correlations. The
objective was to identify sets of variables that have stronger common themes with one of their respective variable groupings than they have with other variable groupings. This procedure allows the researcher to know the themes that underlie a set of variables (Kim & Mueller, 1978). These variable groupings are commonly referred to as factors that may be used as observed variables in themselves. The varimax rotation technique was used to bring the factors closest to "simple structure", that is, the point where there are weaker correlations between factor variables than there are within the factors' variables.

The Professional Development Experiences factor analysis converged within the SPSS limit of 25 iterations (13 iterations) and yielded six factors. Of the original 22, five variables were not included in the variable groupings because they loaded (i.e., correlated with) strongly on more than one factor and were thus considered "mathematically confused". Those variables were items 1) "take a course at a college or university"; 4) "participate in seminars on education related issues in settings other than a college or university"; 12) "attend a professional conference"; 13) "observe others for teaching, management, and interaction styles"; and 17) "lead a seminar for other teachers".

Variable loading is considered strong if they were equal to, or greater than .30. This is an arbitrary designation that could have been set lower. It was determined that .30 would serve the purposes of the research
well in that it would ensure that all loadings were strong enough to have been significant in a standard Pearson's $r$ correlation analysis. The index of .30 was adopted to ensure error would occur on the side of conservatism, if at all. The variables that made up the six factors were summed to create six observed variables.

In Table 4.6, the factors include *Group Learning* which is comprised of the following variables: serve as a member of a study group or learning community, participate in an on-line teacher discussion group, engage in a distance education experience, and participate in a study tour. *Teacher School Improvement* is comprised of helping to develop school curricula, learning how to use new technologies, such as computers and teleconferencing, working with a group to develop new learner assessments and reading professional journals. *Research Assistant* includes conducting action research, participating in a work-site internship, and participating in a job shadowing experience. *Professional Self-Evaluation* includes earning an advanced degree and receiving feedback from an administrator or supervisor after an evaluation. *Subject-matter Content Evaluation* is made up of variables such as studying a topic independently and conducting program evaluations. *Mentoring* is comprised of establishing and maintaining a mentoring relationship, either as a mentor or mentee, and providing or receiving peer reviews.

This means that the factors, group learning, teacher school
Table 4.6. Factor analysis of professional development experiences (Varimax Rotation)

<table>
<thead>
<tr>
<th>Professional Development Experience Factors</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group Learning</strong></td>
<td><strong>F1</strong></td>
</tr>
<tr>
<td>Participate in an on-line teacher discussion group</td>
<td>0.875</td>
</tr>
<tr>
<td>Participate in a study tour</td>
<td>0.867</td>
</tr>
<tr>
<td>Serve as a member of a study group or learning community</td>
<td>0.834</td>
</tr>
<tr>
<td>Engage in a distance education experience</td>
<td>0.740</td>
</tr>
<tr>
<td><strong>Teacher School Improvement</strong></td>
<td><strong>F2</strong></td>
</tr>
<tr>
<td>Learn how to use new technologies, such as computers and teleconferencing</td>
<td>0.880</td>
</tr>
<tr>
<td>Help to develop school curricula</td>
<td>0.827</td>
</tr>
<tr>
<td>Read professional journals</td>
<td>0.802</td>
</tr>
<tr>
<td>Work with a group to develop new learner assessments</td>
<td>0.741</td>
</tr>
<tr>
<td><strong>Research Assistant</strong></td>
<td><strong>F3</strong></td>
</tr>
<tr>
<td>Participate in job shadowing experience</td>
<td>0.927</td>
</tr>
<tr>
<td>Participate in a work-site internship</td>
<td>0.905</td>
</tr>
<tr>
<td>Conduct action research</td>
<td>0.609</td>
</tr>
<tr>
<td><strong>Professional Self-Evaluation</strong></td>
<td><strong>F4</strong></td>
</tr>
<tr>
<td>Receive feedback from administrator or supervisor after Evaluation</td>
<td>0.821</td>
</tr>
<tr>
<td>Earn an advance degree</td>
<td>0.793</td>
</tr>
<tr>
<td><strong>Subject-Matter Content Evaluation</strong></td>
<td><strong>F5</strong></td>
</tr>
<tr>
<td>Conduct program evaluations</td>
<td>0.918</td>
</tr>
<tr>
<td>Study a topic independently</td>
<td>0.787</td>
</tr>
<tr>
<td><strong>Mentoring</strong></td>
<td><strong>F6</strong></td>
</tr>
<tr>
<td>Provide or receive peer reviews</td>
<td>0.776</td>
</tr>
<tr>
<td>Establish and maintain a mentoring relationship, either as a Mentor or mentee</td>
<td>0.762</td>
</tr>
</tbody>
</table>
improvement, research assistant, professional self evaluation and subject-matter content account for 80% or more of FCS secondary school teachers professional development experiences. Mentoring accounts for 77% of their professional development experiences.

**Research Question Four**

What are the relationships between personal and professional characteristics and professional development experiences?

Since the question of statistical relationship is one of correlation, Pearson's $r$ (correlation) was used to address research question four. The results presented illustrate statistically significant correlations between personal characteristics and professional development characteristics and the professional development experience factors identified in the previous research question. Table 4.7 presents significant relationships between personal characteristics and professional development experience factors.

Ethnic background is positively correlated with professional self-evaluation, group learning, and teacher school improvement. This means that more African American FCS teachers than White, non-Hispanic FCS teachers have participated in professional development experiences relative to professional self-evaluation, group learning, and teacher school improvement.

Number of children, age, youngest child living in home, and oldest
Table 4.7. Relationships between personal characteristics and professional development experiences

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnic Background and Professional Self-Evaluation</td>
<td>129</td>
<td>.222*</td>
<td>.012</td>
</tr>
<tr>
<td>Ethnic Background and Group Learning</td>
<td>99</td>
<td>.204*</td>
<td>.043</td>
</tr>
<tr>
<td>Ethnic Background and Teacher School Improvement</td>
<td>132</td>
<td>.176*</td>
<td>.044</td>
</tr>
<tr>
<td>Number of Children and Group Learning</td>
<td>95</td>
<td>-.221*</td>
<td>.032</td>
</tr>
<tr>
<td>Age and Group Learning</td>
<td>100</td>
<td>-.289**</td>
<td>.003</td>
</tr>
<tr>
<td>Youngest Child Living in Home and Group Learning</td>
<td>39</td>
<td>-.422**</td>
<td>.008</td>
</tr>
<tr>
<td>Oldest Child Living in Home and Group Learning</td>
<td>43</td>
<td>-.456**</td>
<td>.002</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 Level (2-tailed).
* Correlation is significant at the 0.05 Level (2-tailed).

child living in home are negatively correlated with group learning. The fewer children FCS teachers have the more likely they have participated in professional experience involving group learning. The younger the FCS teacher, the more likely he/she has participated in group learning. With the youngest child living in home, FCS teachers are more likely to have participated in group learning. With the oldest child living in home, FCS teachers are less likely to have participated in group learning.

Statistically significant relationships between professional characteristics and the professional development experience factors are presented in Table 4.8. The statistics in this study reveal that education is
Table 4.8. Relationships between professional characteristics and professional development experiences

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and Professional Self Evaluation</td>
<td>129</td>
<td>.413**</td>
<td>.000</td>
</tr>
<tr>
<td>Education and Mentoring</td>
<td>107</td>
<td>-.228*</td>
<td>.018</td>
</tr>
<tr>
<td>Annual Teaching Salary and Professional Self-Evaluation</td>
<td>128</td>
<td>.225*</td>
<td>.011</td>
</tr>
<tr>
<td>Annual Teaching Salary and Subject-Matter Content Evaluation</td>
<td>114</td>
<td>.239*</td>
<td>.010</td>
</tr>
<tr>
<td>Annual Teaching Salary and Mentoring</td>
<td>107</td>
<td>-.244*</td>
<td>.011</td>
</tr>
<tr>
<td>Years of Teaching Experience and Mentoring</td>
<td>105</td>
<td>-.298**</td>
<td>.002</td>
</tr>
<tr>
<td>Current Teaching Status and School Improvement</td>
<td>132</td>
<td>-.177*</td>
<td>.042</td>
</tr>
<tr>
<td>Current Teaching Status and Professional Self-Evaluation</td>
<td>129</td>
<td>-.177*</td>
<td>.045</td>
</tr>
<tr>
<td>Current Teaching Status and Subject-Matter Content Evaluation</td>
<td>115</td>
<td>-.219*</td>
<td>.019</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 Level (2-tailed).
* Correlation is significant at the 0.05 Level (2-tailed).

positively related to professional self-evaluation. In other words, the more education FCS teachers have the more likely they are to have participated in professional self-evaluation. Education was negatively related to mentoring. This means that the less education FCS teachers have the more likely they would have participated in a professional development experience factor related to mentoring.
In relation to annual teaching salary, results indicate that there is a positive relationship with professional self-evaluation. The more professional self-evaluation is implemented, the larger the annual teaching salary. Annual teaching salary is also positively correlated with subject-matter content evaluation (i.e., independent study topic and program evaluation) which means that the higher the annual teacher salary the more likely the FCS teacher will have participated in subject-matter content evaluation. Annual teaching salary, however, is negatively correlated with mentoring. This means that a lower salary indicates FCS teachers have had more mentoring professional development experiences.

This study indicates that years of teaching experience is negatively related to mentoring. This means that FCS teachers with less teaching experience will more likely than not have had a professional development experience related to mentoring. The related literature validates the finding that years of teaching experience is related to mentoring (Columbia Group, 1998b). For example, novice teachers are often left in a “sink or swim” situation without mentors and as a result after the first five years leave the teaching profession (Fullan & Stiegelbauer, 1991). If those novice teachers had mentors, then they might not have left the teaching profession.

Current teaching status is negatively correlated with teacher school improvement, professional self-evaluation, and subject-matter content
evaluation. This basically means that full time teachers are less likely to have participated in experiences related to teacher school improvement, professional self-evaluation, and subject-matter content evaluation. Since these teachers teach full time, perhaps they have less time for these professional development experience factors.

The facilitators of professional development relationships are presented in Table 4.9 where the variables used for this analysis are the summed factors from research questions three and six factor analyses. This approach allows the specific areas represented by the factors to be matched and correlated individually with the all of the other factors.

Results reveal a statistically positive relationship between teacher leader and teacher school improvement. This means that teacher leaders are more likely to have participated in professional development experiences related to teacher school improvement. The positive correlation between teacher leader and research assistant indicates that teacher leaders in FCS have participated in professional development experiences that are research related.

In relation to the professional development school factor and teacher school improvement, the results indicate that there is a positive correlation between the two. This means that the more teachers participate in professional development schools, the more they gain experiences related to teacher school improvement. Professional development school and subject-
Table 4.9. Relationships between professional development facilitators and professional development experiences

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Leader and Teacher School Improvement</td>
<td>132</td>
<td>.225**</td>
<td>.009</td>
</tr>
<tr>
<td>Teacher Leader and Research Assistant</td>
<td>99</td>
<td>.292**</td>
<td>.005</td>
</tr>
<tr>
<td>Professional Development School and Teacher School Improvement</td>
<td>132</td>
<td>.239**</td>
<td>.006</td>
</tr>
<tr>
<td>Professional Development School and Subject-matter Content Evaluation</td>
<td>115</td>
<td>-.208*</td>
<td>.026</td>
</tr>
<tr>
<td>Funding Source and Subject-matter Content Evaluation</td>
<td>115</td>
<td>.208*</td>
<td>.026</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 Level (2-tailed).
* Correlation is significant at the 0.05 Level (2-tailed).

matter content evaluation are correlated negatively, however, which suggests that professional development schools are not driven by participation in subject-matter content evaluations.

Funding source is positively related to subject-matter content evaluation. This suggests that funding is based on the success of subject-matter content evaluation. In other words, funding is limited or based on an evaluation of the program and any area that is studied independently.

**Research Question Five**

What professional development facilitators exist in the settings in which teachers work?
A wide variety of professional development facilitators exist in the settings in which South Carolina FCS teachers work (see Table 4.10). A majority of settings, 120 (87.6%), employ an appropriate teacher specialist; 115 (83.9%) provide a variety of leadership responsibilities for teachers; 107 (78.1%) encourage professional growth opportunities for collaboration; 102 (74.5%) provide funding for professional development; and 101 (73.7%) encourage peer assistance.

Other facilitators include the following: suggest all teachers serve in

Table 4.10. Frequency of professional development facilitators (N=137)

<table>
<thead>
<tr>
<th>Professional Development Facilitators</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employ appropriate teacher specialists</td>
<td>120</td>
<td>87.6</td>
</tr>
<tr>
<td>Provide a variety of leadership responsibilities for teachers</td>
<td>115</td>
<td>83.9</td>
</tr>
<tr>
<td>Encourage professional growth opportunities for collaboration</td>
<td>107</td>
<td>78.1</td>
</tr>
<tr>
<td>Provide funding for professional development</td>
<td>102</td>
<td>74.5</td>
</tr>
<tr>
<td>Encourage peer assistance</td>
<td>101</td>
<td>73.7</td>
</tr>
<tr>
<td>Suggest all teachers serve in one or more leadership positions</td>
<td>80</td>
<td>58.4</td>
</tr>
<tr>
<td>Have building-level faculty who are responsible for teacher induction</td>
<td>79</td>
<td>57.7</td>
</tr>
<tr>
<td>Have building-level faculty responsible for professional growth within building</td>
<td>52</td>
<td>38.0</td>
</tr>
<tr>
<td>Have teacher's associations facilitate professional growth of members</td>
<td>47</td>
<td>34.3</td>
</tr>
<tr>
<td>Extend teacher's contracts</td>
<td>29</td>
<td>21.2</td>
</tr>
<tr>
<td>Have teachers associations assume responsibility for quality of teaching</td>
<td>27</td>
<td>19.7</td>
</tr>
</tbody>
</table>
one or more leadership positions (n=80, 58.4%); have building-level faculty who are responsible for teacher induction programs (n=79, 57.7%); have building-level faculty responsible for professional growth within the building (n=52, 38%); have teacher's associations facilitate professional growth of members (n=47, 34.3%); extend teacher's contracts (n=29, 21.2%); and have teachers associations assume responsibility for quality teaching (n=27, 19.7%).

The literature supported the finding relative to building-level professional development (Columbia Group, 1998a; Mantle-Bromley, 1998). This study revealed that 38% of schools have building-level faculty responsible for professional growth within the building. Even though building-level professional development is an emerging opportunity, more and more states are becoming involved.

**Research Question Six**

What are the underlying factors that represent professional development facilitators?

Factor analysis was deemed an appropriate statistical tool for answering this question. The 11 Professional Development Facilitator items were submitted to a factor analysis that converged within the SPSS limit of 25 iterations (nine iterations) and yielded four factors. Of the original 11, two variables were not included in the variable groupings because they
loaded (i.e., correlated with) strongly on more than one factor and were thus considered "mathematically confused". Those variables were item 1) "Extend teachers' contracts to provide time for school based teacher developed group and individual study" and item 10) "Have building level faculty who design and are responsible for an induction program for all teachers new to the building". The variables that made up the four factors were summed to create four observed variables. The names given to the four factors are "Teacher Leader", "Professional Development School", "Peer Reviewer", and "Funding Source" (see Table 4.11).

The factor Teacher Leader is comprised of the following variables: having teachers' associations assume responsibility and accountability for the overall teaching profession; having teachers' associations facilitate the professional growth of their members; and having building-level faculty who design and are responsible for the professional growth of all teachers within that building. This factor, teacher leader accounts for 64% of the variance as indicated by the respondents. Shanker's (1990) study supports the finding in this study that teachers are taking on more responsibilities in schools which is an underlying professional development facilitator factor that emerged in this study.

Professional Development School is comprised of encouraging professional growth opportunities for collaborating with university faculty, businesses, the scientific community and cultural organizations; employing
Table 4.11. Factor analysis of professional development facilitators
(Varimax Rotation)

<table>
<thead>
<tr>
<th>Professional Development Facilitator Factors</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher Leader</strong></td>
<td><strong>F1</strong></td>
</tr>
<tr>
<td>Have teachers' associations assume responsibility and accountability for the overall teaching profession</td>
<td>0.790</td>
</tr>
<tr>
<td>Have teachers' associations facilitate the professional growth of their members</td>
<td>0.722</td>
</tr>
<tr>
<td>Have building-level faculty who design and are responsible for the professional growth of all teachers within that building</td>
<td>0.404</td>
</tr>
<tr>
<td><strong>Professional Development School</strong></td>
<td><strong>F2</strong></td>
</tr>
<tr>
<td>Suggest all teachers serve in one or more leadership positions at some point in their careers</td>
<td>0.734</td>
</tr>
<tr>
<td>Employ appropriate teacher specialists, such as a technology coordinator or school-to-work coordinator</td>
<td>0.700</td>
</tr>
<tr>
<td>Encourage professional growth opportunities for collaborating with university faculty, businesses, the scientific community and cultural organizations</td>
<td>0.519</td>
</tr>
<tr>
<td><strong>Peer Reviewer</strong></td>
<td><strong>F3</strong></td>
</tr>
<tr>
<td>Provide a variety of leadership responsibilities for teachers, such as lead teacher, department chair, and curriculum chair</td>
<td>0.673</td>
</tr>
<tr>
<td>Encourage peer assistance through mentoring</td>
<td>0.657</td>
</tr>
<tr>
<td><strong>Funding Source</strong></td>
<td><strong>F4</strong></td>
</tr>
<tr>
<td>Provide funding for professional development</td>
<td>0.795</td>
</tr>
</tbody>
</table>

appropriate coordinator; and suggesting all teachers serve in one or more leadership positions at some point in their careers. This factor accounts for 65% of the variance as identified by the respondents. The literature supported professional development school factor in relation to
collaboration between school districts, universities and teacher unions (Justiz, 1997; Abdal-Haqq, 1992).

Peer Reviewer includes the following variables: encourage peer assistance through mentoring, and provide a variety of leadership responsibilities for teachers such as lead teacher, department chair, and curriculum chair. This factor accounts for about 66% of the variance as identified by the respondents. Mantle-Bromley (1998) study supported the findings in this study in relation to peer reviewer.

Funding Organization is comprised of one variable, providing funding for professional development. This factor explains 80% of the variance as identified by the respondents in this study. Barlow (1999) study supported the findings in this study in relation to funding organization.

Research Question Seven

In what professional development opportunities are teachers interested?

FCS teachers are interested in a number of professional development opportunities. Means were used to describe the opportunities in which FCS teachers in South Carolina were interested. (see Table 4.12). The scale for this measure is 1= Not at all interested, 2=Not very interested, 3=Somewhat interested, 4= Very interested, and 5= Extremely interested.

In relation to the professional development opportunities of interest to South Carolina FCS secondary teachers, FCS content updates appeared at
the top of the list with a mean of 4.32, which means that teachers are very interested in information related to FCS content updates. Other opportunities of interest in which teachers were very interested include the following: motivation of students, technology for instructional purpose, FCS methodology updates, and student achievement.

Other opportunities of interests in which teachers were at least somewhat interested include classroom management, parental involvement, learner assessment, national family consumer sciences standards, school safety, communication with school administrators, program evaluation, group dynamics, service learning, entrepreneurship education, multiculturalism, leadership practices, marketing strategies, Master of Education degree with FCS emphasis, and recruitment strategies. Public policy and FHA/HERO chapter advisement were the only two professional development opportunities in which teachers were not very interested at all.

Education reform emphasizing the number of teachers who are unprepared for the modern classroom supports the findings in this study (Committee on Labor and Human Resources United States Senate, 1997; Barlow, 1999). FCS content and methodology updates were high on the list as well suggesting that teachers need current content and methods, which supports several other studies (Lamble & Mills, 1981; Beavers & Charlson, 1986; National Education Goals Panel, 1998). At least 45% of the teachers in this sample were very interested to extremely interested in a Master of
Table 4.12. Interest in professional development opportunities (N=137)

<table>
<thead>
<tr>
<th>Professional Development Opportunities</th>
<th>Mean</th>
<th>Not at all interested</th>
<th>Not very interested</th>
<th>Somewhat interested</th>
<th>Very interested</th>
<th>Extremely interested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>FCS content updates</td>
<td>4.32</td>
<td>1</td>
<td>0.7</td>
<td>1</td>
<td>0.7</td>
<td>18</td>
</tr>
<tr>
<td>Motivation of students</td>
<td>4.30</td>
<td>1</td>
<td>0.7</td>
<td>4</td>
<td>2.9</td>
<td>10</td>
</tr>
<tr>
<td>Technology for instructional purposes</td>
<td>4.24</td>
<td>1</td>
<td>0.7</td>
<td>18</td>
<td>13.1</td>
<td>63</td>
</tr>
<tr>
<td>FCS methodology updates</td>
<td>4.16</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
<td>4.4</td>
<td>23</td>
</tr>
<tr>
<td>Student achievement</td>
<td>4.06</td>
<td>1</td>
<td>0.7</td>
<td>7</td>
<td>5.1</td>
<td>22</td>
</tr>
<tr>
<td>Classroom management</td>
<td>3.88</td>
<td>1</td>
<td>0.7</td>
<td>10</td>
<td>7.3</td>
<td>35</td>
</tr>
<tr>
<td>Parental involvement</td>
<td>3.86</td>
<td>2</td>
<td>1.5</td>
<td>9</td>
<td>6.6</td>
<td>35</td>
</tr>
<tr>
<td>Learner assessment</td>
<td>3.85</td>
<td>2</td>
<td>1.5</td>
<td>8</td>
<td>5.8</td>
<td>32</td>
</tr>
<tr>
<td>National FCS standards</td>
<td>3.69</td>
<td>6</td>
<td>4.4</td>
<td>8</td>
<td>5.8</td>
<td>42</td>
</tr>
<tr>
<td>School safety</td>
<td>3.68</td>
<td>1</td>
<td>0.7</td>
<td>11</td>
<td>8.0</td>
<td>47</td>
</tr>
<tr>
<td>Communication with school administrators</td>
<td>3.63</td>
<td>6</td>
<td>4.4</td>
<td>15</td>
<td>10.9</td>
<td>37</td>
</tr>
<tr>
<td>Program evaluation</td>
<td>3.56</td>
<td>2</td>
<td>1.5</td>
<td>13</td>
<td>9.5</td>
<td>49</td>
</tr>
<tr>
<td>Group dynamics</td>
<td>3.50</td>
<td>5</td>
<td>3.6</td>
<td>15</td>
<td>10.9</td>
<td>46</td>
</tr>
<tr>
<td>Service learning</td>
<td>3.49</td>
<td>5</td>
<td>3.6</td>
<td>13</td>
<td>9.5</td>
<td>50</td>
</tr>
<tr>
<td>Entrepreneurship education</td>
<td>3.33</td>
<td>10</td>
<td>7.3</td>
<td>23</td>
<td>16.8</td>
<td>38</td>
</tr>
<tr>
<td>Multiculturalism</td>
<td>3.23</td>
<td>10</td>
<td>7.3</td>
<td>18</td>
<td>13.1</td>
<td>55</td>
</tr>
<tr>
<td>Leadership Practices</td>
<td>3.18</td>
<td>11</td>
<td>8.0</td>
<td>22</td>
<td>16.1</td>
<td>53</td>
</tr>
<tr>
<td>Marketing strategies</td>
<td>3.11</td>
<td>11</td>
<td>8.0</td>
<td>28</td>
<td>20.4</td>
<td>46</td>
</tr>
<tr>
<td>MED with FCS emphasis</td>
<td>3.10</td>
<td>30</td>
<td>21.9</td>
<td>16</td>
<td>11.7</td>
<td>28</td>
</tr>
<tr>
<td>Recruitment strategies</td>
<td>3.07</td>
<td>10</td>
<td>7.3</td>
<td>30</td>
<td>21.9</td>
<td>50</td>
</tr>
<tr>
<td>Public policy</td>
<td>2.96</td>
<td>15</td>
<td>10.9</td>
<td>23</td>
<td>16.8</td>
<td>60</td>
</tr>
<tr>
<td>PHA/HERO chapter advisement</td>
<td>2.92</td>
<td>25</td>
<td>18.2</td>
<td>27</td>
<td>19.7</td>
<td>37</td>
</tr>
</tbody>
</table>
Education degree with emphasis in FCS. In the literature, obtaining graduate credits and/or an advanced degree were indicated as being the most important professional development teacher goals (Monahan, 1993).

Other areas of interest and concern relative to professional development opportunities of interest is supported in the literature relative to program evaluation and learner assessment (Beavers & Charlson, 1986; National Education Goals Panel, 1998) leadership roles and technology.

**Research Question Eight**

What are they underlying factors that represent professional development opportunities of interest to teachers?

The analysis for this question consisted of a factor analysis of the 22 Professional Development Opportunities items. Table 4.13 presents an analysis that yielded four factors that converged within the SPSS limit of 25 iterations (eight iterations). Two variables were lost due to mathematical confusion, they were questions 7) multiculturalism, and 14) program evaluation. The remaining variables were summed within their respective factors and made into four observed variables.

In relation to professional development experiences, factor analysis converged with the SPSS limit of 25 iterations (13 iterations) and yielded four factors that explain professional development opportunities. The factors for *School Culture* is comprised of parental involvement, school
Table 4.13. Factor analysis of professional development opportunities of interest (Varimax Rotation)

<table>
<thead>
<tr>
<th>Professional Development Opportunity Factors</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School Culture</strong></td>
<td></td>
</tr>
<tr>
<td>Student achievement</td>
<td>0.831</td>
</tr>
<tr>
<td>Classroom management</td>
<td>0.817</td>
</tr>
<tr>
<td>Learner assessment</td>
<td>0.790</td>
</tr>
<tr>
<td>School safety</td>
<td>0.696</td>
</tr>
<tr>
<td>Communication with school administrators</td>
<td>0.687</td>
</tr>
<tr>
<td>Motivation of students</td>
<td>0.658</td>
</tr>
<tr>
<td>Group dynamics</td>
<td>0.624</td>
</tr>
<tr>
<td>Parental involvement</td>
<td>0.604</td>
</tr>
<tr>
<td><strong>Community Outreach</strong></td>
<td></td>
</tr>
<tr>
<td>Marketing strategies</td>
<td>0.787</td>
</tr>
<tr>
<td>Recruiting strategies</td>
<td>0.775</td>
</tr>
<tr>
<td>Leadership practices</td>
<td>0.703</td>
</tr>
<tr>
<td>Entrepreneurship education</td>
<td>0.672</td>
</tr>
<tr>
<td>Public policy</td>
<td>0.664</td>
</tr>
<tr>
<td>Service learning</td>
<td>0.612</td>
</tr>
<tr>
<td><strong>Family and Consumer Sciences Updates</strong></td>
<td></td>
</tr>
<tr>
<td>Family and consumer sciences content updates</td>
<td>0.778</td>
</tr>
<tr>
<td>Technology for instructional purposes</td>
<td>0.725</td>
</tr>
<tr>
<td>Family and consumer sciences methodology updates</td>
<td>0.708</td>
</tr>
<tr>
<td><strong>Teacher Self Improvement</strong></td>
<td></td>
</tr>
<tr>
<td>Master of Education in family and consumer sciences</td>
<td>0.762</td>
</tr>
<tr>
<td>National family and consumer sciences standards</td>
<td>0.710</td>
</tr>
<tr>
<td>FHA/HERO chapter advisement</td>
<td>0.638</td>
</tr>
</tbody>
</table>

safety, classroom management, group dynamics, motivation of students, learner assessment, student achievement, and communication with school administrators. Community Outreach is comprised of leadership practices, public policy, service learning, recruiting strategies, marketing strategies,
and entrepreneurship education. *FCS Updates* include variables such as family and consumer sciences content updates, family and consumer sciences methodology updates, and technology for instructional purposes. *Teacher Self-improvement* includes master of education in family and consumer sciences, national family and consumer sciences standards, and FHA/HERO chapter advisement. All four factors explain 70% and more of the variance of professional development factors, school culture, community outreach, FCS updates, and teacher self-improvement as identified by the respondents in this study.

**Research Question Nine**

What are the relationships between personal and professional characteristics and professional development opportunities?

Since the question of statistical relationship is one of correlation, Pearson's *r* (correlation) was used to address research question nine. The results revealed statistically significant relationships (see Table 4.14).

Personal characteristics were found to be correlated with selected factors of professional development opportunities. The personal characteristic, ethnic background is related to school culture, community outreach, and teacher self-improvement. This means that White, non-Hispanic FCS teachers responded differently than African American FCS teachers in relation to teacher self-improvement, school culture, and
Table 4.14. Relationships between personal characteristics and professional development opportunities

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnic Background and Teacher Self Improvement</td>
<td>135</td>
<td>.352**</td>
<td>.000</td>
</tr>
<tr>
<td>Ethnic Background and School Culture</td>
<td>135</td>
<td>.316**</td>
<td>.000</td>
</tr>
<tr>
<td>Ethnic Background and Community Outreach</td>
<td>135</td>
<td>.245**</td>
<td>.004</td>
</tr>
<tr>
<td>Youngest Child Living in Home and Family and Consumer Sciences Updates</td>
<td>56</td>
<td>-.275*</td>
<td>.040</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 Level (2-tailed).
*Correlation is significant at the 0.05 Level (2-tailed).

community outreach. African American FCS teachers prefer professional development opportunities of interest factors related to teacher self-improvement, school culture, and community outreach more so than White, non-Hispanic FCS teachers. In relation to youngest child living in home and professional development opportunities of interest factors related to FCS updates, findings reveal a negative relationship. This means that the younger the child living in the home, the more the FCS teacher prefers professional development opportunities of interest factors related to FCS updates.

The professional characteristics related to teacher self-improvement are annual teaching salary, and years of experience (see Table 4.15). There is a negative correlation between annual teaching salary and teacher self-
improvement. This means that the lower the teaching salary, the more interested FCS teachers would be in teacher self-improvement. There is also a negative correlation between years of teaching experience and teacher self-improvement. This indicates that the fewer the years of teaching experience, the more FCS teachers are interested in participating in teacher self-improvement professional development opportunities.

Table 4.15. Relationships between professional characteristics and professional development opportunities

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Teaching Salary and Teacher Self Improvement</td>
<td>134</td>
<td>-.173*</td>
<td>.046</td>
</tr>
<tr>
<td>Years of Teaching Experience and Teacher Self Improvement</td>
<td>132</td>
<td>-.234**</td>
<td>.007</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 Level (2-tailed).
* Correlation is significant at the 0.05 Level (2-tailed).
CHAPTER V. SUMMARY, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

Summary

The overall purpose of this study was to examine the professional development experiences, facilitators and opportunities of South Carolina secondary school family and consumer sciences (FCS) teachers. Professional development can be viewed as the "glue" that holds education reform together during and after the process has been implemented. Contemporary educational reforms emphasize changes across various institutions and those who are willing to take part in educational reforms must change as well. Such reform requires teachers to collaborate, and improve what is taught and how it might be taught. Reform also helps teachers describe their roles, and identify facilitators and opportunities of interest related to professional development.

To understand better the evolving professional development needs of FCS secondary school teachers in South Carolina, nine research questions were formulated to examine the professional development of these teachers:

1. What are the personal and professional characteristics of the teachers?
2. In what professional development experiences are teachers currently involved?
3. What are the underlying factors that represent professional development experiences for the teachers?

4. What are the relationships between personal and professional characteristics and professional development experiences?

5. What professional development facilitators exist in the settings in which teachers work?

6. What are the underlying factors that represent professional development facilitators?

7. In what professional development opportunities are teachers interested?

8. What are the underlying factors that represent professional development opportunities of interest?

9. What are the relationships between personal and professional characteristics and professional development opportunities?

A random sample of 217 FCS South Carolina secondary school teachers was drawn from the population of 496 FCS South Carolina secondary school teachers. A response rate of 71% (154) was achieved with a data-producing sample consisting of 137 (63%) usable questionnaires.

The personal characteristics of South Carolina secondary school FCS teachers indicate a female-dominated profession (95.6%), predominately between the ages of 40 and 49 (41.6%), White, non-Hispanic (79.6%), and married (73.7%). The largest percent have two children (42%), and 18
hours of credit beyond the bachelor's degree. Half of the teachers have a Master of Science degree, earn between $30,000 and $40,000, and have between 22-26 years of teaching experience. The majority of the teachers work at middle and senior high schools, teach nutrition and food sciences followed by comprehensive FCS, and family life courses; and are seeking new experiences that go beyond the traditional professional development experiences of taking university courses or workshops.

The number of FCS teachers involved in professional development experiences ranged from 31 to 132 in the 22 categories of professional development experiences. The level of helpfulness indicated by the FCS teachers revealed relatively high means that ranged from 3.03 to 3.87 on a four-point scale. The teachers deemed all experiences at least somewhat helpful.

Group learning, teacher school improvement, research assistant, professional self-evaluation, and subject-matter content account for 80% or more of FCS secondary school teachers' professional development experiences. Mentoring accounts for 77% of their professional development experiences.

The more education FCS teachers have the more likely they are to have experiences related to professional self-evaluation. Education, however, is negatively related to mentoring. The less education FCS teachers have, the more likely they would have participated in experiences
related to mentoring. More African American FCS teachers than White, non-Hispanic FCS teachers have participated in professional development experiences relative to professional self-evaluation, group learning, and teacher school improvement.

Number of children, age, youngest child living in home, and oldest child living in home were negatively correlated with group learning. The fewer children FCS teachers have, the more likely they have participated in group learning. The younger the FCS teacher, the more likely he/she has participated in group learning. With the youngest child living in home, FCS teachers are more likely to have participated in group learning. With the oldest child living in home, FCS teachers are less likely to have participated in group learning.

In relation to annual teaching salary, results indicate that there is a positive relationship with professional self-evaluation. The more professional self-evaluation is implemented, the larger the annual teaching salary. Annual teaching salary is also positively correlated with subject-matter content evaluation and is negatively correlated with mentoring. Years of teaching experience were negatively related to mentoring. FCS teachers with less teaching experience will more likely than not have had a professional development experience related to mentoring.

Full time teachers are less likely to have participated in experiences related to teacher school improvement, professional self-evaluation, and
subject-matter content evaluation. Since these teachers teach full time, perhaps they have less time for these professional development experience factors.

In terms of the professional development facilitator factors and professional development experience factors, the results reveal statistically positive relationship between teacher leader and school development. Teacher leaders are more likely to have participated in professional development experiences related to school improvement. The positive correlation between teacher leader and research assistant indicates that teacher leaders in FCS have participated in professional development experiences that are research related.

There is a positive correlation between professional development school and teacher school improvement. The more teachers participate in professional development schools, the more they gain experiences related to school improvement. Professional development schools and subject-matter content evaluation are negatively correlated which suggests that professional development schools are not driven by subject-matter content evaluations. Funding source is positively related subject-matter content evaluation suggesting that funding is based on the success of subject-matter content evaluation.

A wide variety of professional development facilitators exist in the settings in which South Carolina FCS teachers work. A majority of settings
(120; 87.6%) employ an appropriate teacher specialist; 115 (83.9%) provide a variety of leadership responsibilities for teachers; 107 (78.1%) encourage professional growth opportunities for collaboration; 102 (74.5%) provide funding for professional development; and 101 (73.7%) encourage peer assistance.

Four factors have been identified as the underlying factors that represent professional development facilitators. The names given to the four factors are "Teacher Leader", "Professional Development School", "Peer Reviewer", and "Funding Source". The four factors explained 65% of the variance as indicated by the respondents.

In relation to the professional development opportunities of interest to South Carolina FCS secondary teachers, FCS content updates appeared at the top of the list with a mean of 4.32 which means that teachers are very interested in information related to FCS content updates. Other opportunities of interest in which teachers are very interested include motivation of students, technology for instructional purpose, FCS methodology updates, and student achievement.

Four factors have been identified as the underlying factors that represent professional development opportunities of interest. The names given to the four factors are "School Culture", "Community Outreach", "FCS Updates", and "Teacher Self-improvement". The four factors explain 71% of the variance as identified by the respondents.
White, non-Hispanic FCS teachers responded differently than African American FCS teachers in relation to school culture and community outreach. Teachers prefer professional development opportunities of interest factors related to school culture, community outreach and self-improvement more so than White, non-Hispanic FCS teachers. In relation to youngest child living in home and professional development opportunity factors related to FCS updates, findings reveal a negative relationship. The younger the child living in the home, the more the FCS teacher prefers professional development opportunity factors related to FCS updates.

The professional characteristics related to teacher self-improvement are annual teaching salary and years of experience. The lower the teaching salary, the more interested FCS teachers would be in teacher self-improvement. The fewer the years of teaching experience, the more FCS teachers are interested in participating in teacher self-improvement professional development opportunities.

Conclusions and Discussion

FCS secondary school teachers in South Carolina are seeking new professional development experiences beyond the traditional university course or workshop. Respondents view professional development experiences as being related to group learning, teacher school improvement, research assistant, self-evaluation, subject matter content evaluation, and
mentoring (see Figure 5.1). Therefore, opportunities related to these professional development experience factors should be provided as part of any professional development program for FCS teachers. White, non-Hispanic FCS teachers responded differently than African American FCS teachers in relation to teacher self-improvement, school culture, and community outreach (see Figure 5.2).

FCS teachers alone cannot solve societal problems; but they can contribute their fair share to structuring a more stable society. Those who claim to be concerned about professional development must act with greater political clarity about whose interests we are furthering. Professional development offers teachers the opportunity for lifelong learning in their careers. Providing professional development for FCS teachers that relates to their evolving needs and interests should be at the center of any effort to improve education and build capacity for change. Not only should professional development be at the center of any effort, but it should also be conveyed in a way that is understood by teachers.

For many years, teachers and other educators have used district-sponsored professional development or university coursework to increase their skills, qualify for salary increases, and meet certification requirements. They have benefited both personally and professionally by enhancing their job security and career advancement. Meaningful professional development related to the evolving needs of teachers, however,
Figure 5.1. Tested Professional Development Experiences Model
Figure 5.2. Tested Professional Development Opportunities of Interest Model
can assist family and consumer sciences teachers and others in learning how to shift from more traditional roles to those that are aligned with more progressive roles related to education reform.

**Recommendations for Practice**

Based on the findings of this study, the following recommendations for practice are proposed:

1. The Office of Occupational Education, South Carolina State Department of Education data bank revealed a number of FCS teachers who are retired, no longer teach FCS, have wrong addresses for secondary schools, are certified teachers in the field but teach another subject, who now hold leadership positions, teach in correctional facilities, and teach at the elementary school level. This data bank should be updated to reflect the current number of educators teaching FCS courses at the secondary education level.

2. Shared leadership responsibilities that redefine the role of teachers in collaborations within and outside the school environment should be implemented. The findings clearly reveal that 136 (75%) of the FCS teachers are interested in opportunities related to leadership practices, 115 (78%) school districts encourage professional growth opportunities by collaborating with university faculty, businesses, the scientific community and cultural organizations, and 115 (83.9%) of
the school districts provide a variety of leadership responsibilities for
teachers. Therefore, implementation relative to shared leadership
responsibilities is in order.

3. Prepare teachers to take more responsibility for their own
professional development. The finding indicates that 102 (74.5%)
school districts do provide funding for professional development of
teachers. Therefore, FCS teachers should take charge of their
learning and seek ways of justifying the importance of specific
professional development related to their field of study.

4. Re-activate and modify a Master of Education Degree Program with
emphasis in family and consumer sciences at South Carolina State
University. Findings in relation to this study revealed that half of the
FCS secondary education teachers do not have a Master's Degree.

5. Provide professional development opportunities for FCS teachers
relative to their areas of interest. The results indicate numerous
opportunities of interests that should be addressed. Examples
include FCS updates, motivation of students, technology for
instructional purposes, student achievement, and FCS methodology
updates.

6. Develop web-based education courses and provide distance
education experiences for FCS. Results from the study indicate FCS
teachers have limited or little experiences related to technology.
Providing hands-on experiences initially in the form of coursework, seminars, workshops will enhance their technology skills, and later providing web-based courses and distance education experiences will help them use technology with ease.

7. More African American FCS teachers than White, non-Hispanic FCS teachers have participated in professional development experiences relative to professional development experiences factors, professional self-evaluation, group learning, and teacher school improvement. Therefore, innovative ways to involve or assist White, non-Hispanic FCS educators obtain experiences related to professional self-evaluation, group learning, and teacher school improvement should be sought.

8. The results relative to ethnic background and professional development opportunities reveal that more African American FCS teachers than White, non-Hispanic FCS teachers are interested in professional development opportunities relative to community outreach. Therefore, opportunities related to community outreach should be provided for those that are interested.

9. The results relative to ethnic background and professional development opportunities reveal that more African American FCS teachers than White, non-Hispanic FCS teachers are interested in professional development opportunities related to teacher self
improvement. It appears that White, non-Hispanic FCS teachers have already participated in professional development opportunities that are of interest to them and no longer interested in these particular professional development opportunities related to teacher self improvement. Therefore, professional development opportunities related to teacher self improvement, should be offered to African American FCS teachers who are interested in the most effective way possible to enhance their careers.

**Recommendations for Further Research**

The following recommendations for research are proposed:

1. An interpretative study of FCS secondary school teachers who have not had a professional development experience related to job-shadowing, work-site internship, distance education, study tours, and on-line discussion groups should be conducted. Studying why FCS teachers have never participated in these professional development experiences can bring insight and understanding to providers of professional development.

2. Further research should be conducted as to the roles of teachers relative to student instruction and teacher professional development. Great demands are placed on teachers which produces uncertainties about their roles and responsibilities.
relative to the importance of student instruction to their professional development.

3. Results from this study reveal that FCS teachers have little or limited experiences with technology. Therefore, further research should be conducted to determine why FCS teachers have little or limited experience in the area of technology and to identify barriers to their participation.

4. Investigating the most effective methods of providing FCS teachers their professional development opportunities of interest should also be conducted. Knowledge of the most effective means for delivery will help FCS teachers obtain the knowledge needed to stay abreast in the FCS profession.
APPENDIX A

NATIONAL FOUNDATION

FOR THE IMPROVEMENT OF EDUCATION

PERMISSION LETTER
19 November 1998

Ms. Ethel G. Jones
Graduate Student
Dept. of Family and Consumer Sciences Education and Studies
College of Family and Consumer Sciences
Iowa State University of Science and Technology
219 MacKay Hall
Ames, Iowa 50011-1120

Dear Ms. Jones:

You have permission to use part of our survey from *Teachers Take Charge of Their Learning* as requested in your letter dated 12 November 1998.

A copy of the survey is enclosed.

Sincerely,

Robert Ganem
Program Officer

encl.
APPENDIX B

QUESTIONNAIRE
Professional Development: 
A 1999 Survey of South Carolina 
Secondary School 
Family and Consumer Sciences 
Teachers
Professional development of educators is an important factor in improving the nation's teaching force. Practicing teachers like you are crucial to the transformation of schools.

Factors affecting the transformation of schools include individual, personal, and professional characteristics of teachers. Examples of these characteristics include knowledge, skills, personality, personal life situations, educational experiences, leadership styles, climate of school, governance, and community connections. Professional development is needed to develop and enhance these characteristics.

Data related to professional development experiences, facilitators, and opportunities are currently unavailable for South Carolina. With your help, the Family and Consumer Sciences Section of the Office of Occupational Education, South Carolina State Department of Education, and the Family and Consumer Sciences Department of South Carolina State University hope to document these factors so that we all can plan most wisely for the future. This information is essential for public-funded education, and a crucial element relative to educational reform.

We are thankful for your willingness to participate in this study. We hope that you will experience satisfaction from helping to plan for a top-quality future for the family and consumer sciences teaching profession. Your time is much appreciated.

It will take approximately 10-15 minutes to complete this questionnaire. After you complete it, place the questionnaire in the enclosed envelope. No postage is required. Mail by March 1, 1999. Questions relative to the questionnaire should be directed to

Ethel G. Jones
Iowa State University, 219 MacKay Hall
Ames, Iowa 50011
PROFESSIONAL DEVELOPMENT EXPERIENCES

Listed below are professional experiences that some teachers have had. For each one, please indicate how helpful it is to you improving your teaching. Use the key:

1 = Not helpful at all
2 = Not very helpful
3 = Somewhat helpful
4 = Very helpful
5 = Have not had this experience

1. Take a course at a college or university
2. Help to develop school curricula
3. Learn how to use new technologies, such as computers and teleconferencing
4. Participate in seminars on education-related issues in settings other than a college or university
5. Work with a group to develop new learner assessments
6. Conduct program evaluations
7. Serve as a member of a group-study group or learning community
8. Establish and maintain a mentoring relationship, either as a mentor or mentee
9. Provide or receive peer reviews
10. Participate in an on-line teacher discussion group

11. Engage in a distance education experience

12. Attend a professional conference

13. Observe others' of teaching, management, and interaction styles

14. Study a topic independently

15. Conduct action research

16. Earn an advanced degree

17. Lead a seminar for other teachers

18. Participate in a study tour

19. Receive feedback from administrator or supervisor after evaluation

20. Participate in a work site internship

21. Participate in job shadowing experience

22. Read professional journals

What additional experiences have you had that has contributed to your teaching being improved? Please list them.

23. ________________________________

24. ________________________________

25. ________________________________
PROFESSIONAL DEVELOPMENT FACILITATORS

Which of the following does your school district provide to facilitate your personal and professional development? Please circle the appropriate response for each. Use the key:

Key:        Y = Yes
                  N = No

1. Extend teachers' contracts to provide time for school-based teacher-developed group and individual study Y N

2. Encourage peer assistance through mentoring Y N

3. Have teachers' associations assume responsibility and accountability for the overall quality of the teaching profession Y N

4. Have teachers' associations facilitate the professional growth of their members Y N

5. Have building-level faculty who design and are responsible for the professional growth of all teachers within that building Y N

6. Encourage professional growth opportunities for collaborating with university faculty, businesses, the scientific community and cultural organizations Y N
7. Employ appropriate teacher specialists, such as a technology coordinator or school-to-work coordinator  
   Y   N

8. Provide a variety of leadership responsibilities for teachers, such as lead teacher, department chair, and curriculum chair  
   Y   N

9. Suggest all teachers serve in one or more leadership positions at some point in their careers  
   Y   N

10. Have building-level faculty who design and are responsible for an induction program for all teachers new to the building  
    Y   N

11. Provide funding for professional development  
    Y   N

What additional experiences does your school district provide to facilitate your personal and professional development? Please list them.

12. ________________________________________
13. ________________________________________
14. ________________________________________
15. ________________________________________
**Professional Development Opportunities**

Of opportunities that could be offered in a seminar, course, or program please indicate how interested you would be in each. Use the key:

1 = Not at all interested  
2 = Not very interested  
3 = Somewhat interested  
4 = Very interested  
5 = Extremely interested

13. Parental involvement
14. Program evaluation
15. Technology for instructional purposes
16. School safety
17. Classroom management
18. Group dynamics
19. Motivation of students
20. Learner assessment
21. Student achievement
22. Communication with school administrators

Are there any other topics/subjects that would interest you? Please indicate if you would be very interested (4) or extremely interested (5).

23. ____________________________  ____
24. ____________________________  ____
25. ____________________________  ____
26. ____________________________  ____
27. ____________________________  ____
DEMOGRAPHICS

Please place a check mark in the most appropriate response that best describes you and your family.

1. **Gender**
   - [ ] Female
   - [ ] Male

2. **Age**
   - [ ] Under 30
   - [ ] 30 to 39
   - [ ] 40 to 49
   - [ ] 50 to 59
   - [ ] 60 and over

3. **Ethnic Background**
   - [ ] White, non-Hispanic
   - [ ] Black, non-Hispanic
   - [ ] Hispanic
   - [ ] Asian/Pacific Islander
   - [ ] American Indian/Alaskan Native
   - [ ] Other: (specify______________)

4. **Current Marital Status**
   - [ ] Single never married
   - [ ] Married
   - [ ] Separated
   - [ ] Divorced
   - [ ] Widowed
5. **Number of Children**

- ___ No children  ➔ (if no children, skip and go to question 7)
- ___ 1 child
- ___ 2 children
- ___ 3 children
- ___ 4 children
- ___ 5 or more children

6. **Age of children living in your home**

- ___ Youngest
- ___ Oldest
- ___ In college

7. **Place of Residence**

- ___ Rural
- ___ Small town
- ___ Urban
- ___ Suburban

8. **Education Level**

- ___ Bachelor's degree
- ___ Bachelor's degree +18
- ___ Master's degree
- ___ Master's degree +30
- ___ Educational Specialist (6-year program or equivalent)
- ___ Doctoral degree
9. **Annual Teaching Salary**

___ Less than $19,999  
___ $20,000 to $24,999  
___ $25,000 to $29,999  
___ $30,000 to $34,999  
___ $35,000 to $39,999  
___ $40,000 to $44,999  
___ $45,000 to $49,999  
___ $50,000 and above

10. **Years of teaching experience including this 1998-99 academic year ____**

11. **Current Teaching Status**

___ Full time  
___ Part time

12. **Current Position (check all that apply)**

___ Senior High School  
___ Middle School  
___ Junior High School  
___ Occupational Senior High School  
___ Combination of the above (describe)
13. List by title all the Family and Consumer Sciences (FCS) courses you are teaching during this 1998-99 academic school year.

<table>
<thead>
<tr>
<th>TITLE OF FCS COURSES</th>
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<tbody>
<tr>
<td>1.</td>
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<td>11.</td>
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<td>12.</td>
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</table>

14. If you would like to have a summary of the findings, please check the appropriate box and complete the attached sheet and place it in the postage paid envelope with the survey. Your name will be detached from this questionnaire before any statistical analysis is initiated. [ ] Yes [ ] No
Please feel free to provide any additional concerns, feelings, beliefs, and comments you might have regarding professional development.
Thank you for completing this questionnaire.

Return in the enclosed envelope to

Ethel G. Jones
219 MacKay Hall
Iowa State University
Ames, Iowa 50011
Questionnaire Number

© Copyright 1999. Ethel G. Jones.
| Last name of Principal Investigator          | Jones |

| Checklist for Attachments and Time Schedule |

The following are attached (please check):

12. **Letter or written statement to subjects indicating clearly:**
   a) the purpose of the research
   b) the use of any identifier codes (names, #s), how they will be used, and when they will be removed (see item 17)
   c) an estimate of time needed for participation in the research
   d) if applicable, the location of the research activity
   e) how you will ensure confidentiality
   f) in a longitudinal study, when and how you will contact subjects later
   g) that participation is voluntary; nonparticipation will not affect evaluations of the subject

13. **Signed consent form (if applicable)**

14. **Letter of approval for research from cooperating organizations or institutions (if applicable)**

15. **Data-gathering instruments**

16. Anticipated dates for contact with subjects:

<table>
<thead>
<tr>
<th>First contact</th>
<th>Last contact</th>
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<tbody>
<tr>
<td>January 22, 1999</td>
<td>May 30, 1999</td>
</tr>
<tr>
<td>Month/Day/Year</td>
<td>Month/Day/Year</td>
</tr>
</tbody>
</table>

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:

   | Month/Day/Year |

18. Signature of Departmental Executive Officer  

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<tr>
<th>Signature of Departmental Executive Officer</th>
<th>Date</th>
<th>Department or Administrative Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R. Jones</strong></td>
<td>1/19/99</td>
<td><strong>Education and Studies</strong></td>
</tr>
</tbody>
</table>

19. **Decision of the University Human Subjects Review Committee:**
   a) Project approved
   b) Project not approved
   c) No action required

<table>
<thead>
<tr>
<th>Name of Committee Chairperson</th>
<th>Date</th>
<th>Signature of Committee Chairperson</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R. Jones</strong></td>
<td>1/12/99</td>
<td><strong>R. Jones</strong></td>
</tr>
</tbody>
</table>

http://www.grad-college.iastate.edu/forms/HumanSubjects.doc
APPENDIX D
PRE-MAILING POST CARD
You have been selected to participate in the 1999 Professional Development Study of South Carolina Secondary School Family and Consumer Sciences Teachers. Your input is very critical, so keep an eye on your mailbox.

In a few days, you will receive a questionnaire pertaining to the study. Your prompt response to the questionnaire will be most appreciative.

Thank you for your time and cooperation.

Ethel G. Jones
Graduate Student, Iowa State University
Assistant Professor, South Carolina State University
APPENDIX E

COVER LETTER
February 5, 1999

Dear XXXXXX,

I am a graduate student at Iowa State University pursuing a doctoral degree in Family and Consumer Sciences Education and Studies. For my research, I am studying professional development of secondary school teachers. The purpose of this study is to examine professional practices, facilitators, and opportunities of South Carolina family and consumer sciences teachers.

South Carolina State University in conjunction with the Family and Consumer Sciences Section of the Office of Occupational Education, South Carolina State Department of Education are requesting your assistance in this task by asking you to complete this questionnaire. It will take approximately 10-15 minutes to complete the questionnaire. You may use a pencil or pen to give your responses on the questionnaire. Names will not be associated with this study in any way; therefore, please do not write your name on the questionnaire. When you are through answering the questions, please place your questionnaire in the return stamped envelope and place it in the United States mail. Your participation in this study is voluntary.

Enclosed is a buck for your invaluable contribution to the profession of family and consumer sciences. Your time and immediate attention is greatly appreciated and will contribute to our understanding of professional development practices, facilitators, and opportunities of South Carolina secondary school family and consumer sciences educators. Again, thank you for completing this questionnaire.

Sincerely,

Ethel G. Jones, M.S., CFCS
Assistant Professor, SCSU

Ann Vail, Ph.D., CFCS
Assistant Professor, ISU

Sally K. Williams, Ph.D., CFCS
Professor, ISU
APPENDIX F

OFFICE OF OCCUPATIONAL EDUCATION, SOUTH CAROLINA

STATE DEPARTMENT OF EDUCATION CORRESPONDENCE
February 3, 1999

Ms. Ethel G. Jones  
2761 Buchanan Hall  
Iowa State University  
Ames, IA 50013

Dear Ms. Jones:

Per your request, you will find enclosed four sets of labels for 217 randomly selected family and consumer sciences teachers in South Carolina public schools.

If I can be of further assistance, please do not hesitate to call me at (803) 734-8438.

Sincerely,

Glenda T. Whittle  
Statistical Research Analyst  
Office of Occupational Education

Enclosures
APPENDIX G

NON-RESPONDENT POST CARD
DID YOU FORGET?

About three weeks ago, I sent a questionnaire to you related to Professional Development. At this time, I have not received your questionnaire. I sincerely need your help. Only through responses from every secondary school Family and Consumer Sciences teacher sampled, can we obtained a South Carolina perspective of Professional Development. Please make this possible by **RESPONDING TODAY**.

If you missed the March 1 deadline, please complete and return the questionnaire anyway. If you mailed your survey recently, thank you for your assistance.

Ethel G. Jones
Graduate Student, Iowa State University
Assistant Professor, South Carolina State University
APPENDIX H

SECOND MAILING COVER LETTER
PLEASE HELP!

To:

FROM: Ethel G. Jones, CFCS
      ISU Graduate Assistant & SCSU Assistant Professor

DATE: March 17, 1999

RE: Professional Development Survey of Family and Consumer Sciences Teachers

About three weeks ago, I sent a questionnaire to you related to professional development of Family and Consumer Sciences Teachers. I have not received your questionnaire. I need your help. Only through responses from every teacher samples, can we obtain a South Carolina perspective of professional development. Your views and opinions are important, so please help make this possible by responding today.

If you recently mailed your packet, thank you. If you have not, I am enclosing another copy of the questionnaire and a return envelope. Please consider providing your viewpoint on professional development for South Carolina Family and Consumer Sciences Teacher. It would be most appreciative if I could receive it by March 26.

Thank you for your immediate attention regarding this matter. If you have any questions or concerns, please feel free to contact me at (515) 296-2925, or engjones@iastate.edu
REFERENCES


Barlow, D. (1999). The teachers’ lounge – Are our teachers well prepared? The Education Digest, 64(8), 44-47.


*SPSS graduate pack 8.0 for windows* (1997). Chicago, IL: SPSS Inc.


ACKNOWLEDGEMENTS

One of life's greatest calamities is to watch potential die untapped. An even greater calamity is to watch potential live, unreleased. It's important to note that only a select few will make the decision to obtain a doctoral degree, fully using the gifts, talents, abilities, and capabilities that come from within. Although not accomplished by oneself, having the love, encouragement, and support from others make such a degree worthwhile.

There are many people whom I would like to thank for contributing to the accomplishment of my coursework, preliminary examination, oral preliminary exam, dissertation and final examination. I would also like to acknowledge a number of individuals who contributed to the process of obtaining this doctoral degree. First and foremost, I would like to thank my committee for their scholarly acumen and dedication to bringing another chapter of my life to closure.

Dr. Ann Vail, major professor, mentor, and leader of this generation, for guiding, and believing in the path you chose, even when others did not know where you were going. For reaching deep to continue this task that seem insurmountable at times, but knowing all the time that the outcome of this task was only as worthy as the effort it took to achieve it.

Dr. Sally K. Williams, co-major professor, advisor, and legacy leader for exemplifying the kind of leadership others could emulate.
Dr. Judy K. Brun, committee member, editor, and challenger for providing the opportunity for numerous experiences which allowed me to begin maximizing my “real” potential.

Dr. Daniel C. Robinson, committee member, advisor, and mediator for providing experiences that often went beyond the duty as a committee member.

Dr. Robert J. Barak, committee member, and supporter for paying attention to the details, raising thought-provoking questions, and providing suggestions when needed.

Other support systems that extend beyond the committee include Dr. Frances Smith for providing me the opportunity to “sup” and share on various occasions. The Department of FCS Education and Studies for support, and invaluable experiences that will last throughout my career, and the College of FCS for support, and the opportunity to be a part of various endeavors. The graduate students in the Department of FCS education and studies for sharing and listening to the voice of challenges that I faced me daily. My best wishes will always be with my fellow graduates before and after me.

Next, I would like to thank all the administration, faculty and staff in FCS at South Carolina State University for the wonderful undergraduate education I received, and for their support during my graduate studies. The entire “SCSU Bulldog Family” for love, support, encouragement, and for
helping me cultivate the quality of life that can be the most exemplary for
generations to come. Special thanks go to Dr. Lillie B. Glover, Dean Leola
Adams, Dr. James H. Arrington, Mrs. Minnie Jones, President Leroy Davis,
Ms. Gloria Pyles, Ms. Deborah N. Blacknall, Mrs. Ethel Bryant, Ms. Queen
Bowman, Mrs. Hattie Evans, Mrs. E. Marie Moore, Ms. Carmen Pough, Ms.
Tamara Roberts, Ms. Panzy Green, and all others who worked hard behind
the scenes whose names I may not know, at least not directly.

I am grateful to several other scholars and friends. I am grateful
beyond their manual assistance, and helpful insight on staying focus. I
wish to acknowledge Dr. George Jackson, Thelma Harding, Mrs. Janie W.
Washington, Mrs. Patricia Neal, Mrs. Dora Washington, Dr. George Bradley,
and E. T. Glover, Sharon Holmes, Thurlow Stenson, Joe Bradley, Nicole
Gale, James Thacker, and Arthur Guess.

A note of thanks to the Body in Christ Christian Worship Center for
extending their love and support during my stay here at Iowa State
University. My spiritual father and mother, Pastor Torain Smith and Sister
Anna Smith for their spiritual guidance, life-giving, spirit-fill teachings that
now allows me to flow in the numerous gifts God has given me. The
Joshua Baptist Church Family for their continuous love and support, and
Friendship Baptist Church for receiving me with open arms when the BCC
was not in session.
I wish to also thank my family for the caring, sharing, love, and support. My sisters, Mattie G. Montgomery, Clotell G. Way, and Patricia G. Jefferson for helping my spouse on various occasions, encouragement, shopping trips, and holiday dinners while at ISU. My brothers, Willie H. Grant, Jr., Donald R. Grant, and Timothy Grant, for love and support. My stepmother, Corine Y. Grant for love, support, special talks, and dinner gatherings. My aunts, especially Louise G. Jackson, uncles, cousins and in-laws for their love, support, and the long distance telephone calls.

Finally, and most important of all, I wish to thank my spouse, Charlie L. Jones and my father, Houston W. Grant. My spouse, for his positive thinking, strength, encouragement and motivation that somehow filtered over into my spirit when I needed the most. My love for you will remain in my heart forever and ever. My father, for his unfailing support through the many trials and tribulations of college and home life. Much love always.

**HAPPY 70TH BIRTHDAY DADDY!**