

## **Program Management Needs of Family and Consumer Sciences Teachers in Idaho**

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*The purpose of the study was to assess Idaho secondary family and consumer sciences (FACS) teachers' perceptions of importance, competence, and professional development needs related to specific program management competencies. Approximately 60% (n=86) of the state's FACS teachers completed the online survey. The survey collected demographic data and allowed respondents to rate 24 program management items. Means, standard deviations, and mean weighted discrepancy scores (MWDS) were calculated for data analysis. Among the program management competencies, FACS teachers indicated that developing relationships with fellow teachers and administrators to be of highest importance and felt least competent with conducting an adult program. The MWDS calculation revealed grant writing/funding opportunities, understanding funding sources, and developing public relations as priority areas for program management needs of FACS teachers. Implications for the professional development needs of FACS teachers and future research are discussed.*

Cushall (2002) stated that *being* a career and technical education (CTE) teacher is a rigorous yet frequently underrated challenge (. Family and Consumer Sciences (FACS) teachers, a division of CTE, have a role that is different from teachers of core subjects. In addition to being instructional designers and facilitators of learning; FACS teachers prepare and budget for laboratory activities (pre-K, foods, and catering events); develop and update curriculum to mirror industry policies; prepare and supervise students for competitive events in Family, Career, and Community Leaders of America (FCCLA) or Skills USA; develop effective public relations; and complete academic, state, and legislative reports. Given the varied responsibilities, FACS teachers may lack competencies in areas of program management that can be improved with involvement in targeted professional development activities.

### **Review of Related Literature**

Most often, teachers learn the knowledge and skills related to the operation of a total program once on-the-job (NCES, 1999). A review of Idaho teacher education programs found teacher candidates often complete only one course in curriculum development and only one course in teaching methods, or take a single course that addresses both curriculum and pedagogy. This can infer that preparation in program management responsibilities is not necessarily addressed within the curriculum, which may be a contributing factor to the increased attrition

rates of beginning teachers (Walker, Garton, & Kitchel, 2004). Ingresoll (2002) examined why so many new teachers left the teaching profession and found that often times teachers felt unprepared for the complexities of their role that demanded a multitude of management decisions every day.

With limited attention given to program management duties at the pre-service level, research have suggested that the problem continued into a teacher's career. Greiman, Walker, and Birkenholz (2002) found that in-service teachers received little program management assistance from their respective school districts. Schools provide professional development as a training strategy to fill the competency (knowledge and skill) level gaps (Ruhland & Bremer, 2002). Teachers participate in professional development activities mainly in the form of in-service workshops, followed by attending conferences and continuing higher education. However, decisions about the content of professional development activities for in-service teachers are most often made by state, district, and building administrators rather than by teachers; and often the topics are not responsive to the unique needs of CTE teachers (Lynch, 1998).

The learning opportunities that professional development affords, serves as a bridge between current reality and future needs of prospective and experienced educators. Munby, Russell, and Martin (2002) concluded that professional development activities can indeed increase perceived competency levels yet the focus of activities should meet the needs of the teachers to best improve their level of competency (Jones, Vail, & Williams, 2000).

Needs studies related to program management have been conducted in agricultural, business, and trade and industrial education (Cannon, Kitchel, & Duncan, 2010; Crews, Moore, Rader, & Rowe, 2006; Garton & Chung, 1996; Greiman, Walker, & Birkenholz, 2005; Joerger, 2002; Kitchel, Cannon, & Duncan, 2009; Layfield & Dobbins, 2002). Greiman et al. (2005) found that novice teachers of agricultural education were challenged by complex program management responsibilities across a broad range of areas, such as technology, laboratory management, completing paper work in the form of reports and applications, and managing FFA (student organization) activities. Among business education teachers, as well as trade and industrial education teachers, researchers have found grant writing, understanding funding opportunities, establishing and organizing coops, and developing public relations to be priority areas for in-service and pre-service program management professional development needs (Cannon, et al., 2010; Kitchel, et al., 2009).

A review of literature revealed no articles that specifically addressed the professional development needs related to program management among secondary FACS educators. The determination of specific professional development activities that are needed and most important for FACS educators is a question that warrants investigation. Therefore, the purpose of this study was to assess Idaho secondary FACS teachers' perceptions of importance, competence, and professional development needs related to program management competencies.

### **Theoretical Framework**

It is essential that FACS teachers systematically engage in meaningful learning opportunities that serve to increase their competencies with program management. Identifying the specific needs of FACS teachers is an important first step in bridging the gap between knowledge, skills, and attitudes, and teacher competency of managing a total program.

To close the gap, professional development needs must be determined, and this can be accomplished through a needs assessment. Needs assessment is a powerful tool that can help

clarify and validate true needs (Selvadurai & Krashinski, 1989). Once these needs are determined and prioritized, a framework for professional development opportunities can be developed (Niven, 1993).

Among needs assessment models, the Borich Needs Assessment Model has been shown to be an effective tool for identifying professional development needs of career and technical educators (Garton & Chung, 1996; Joerger, 2002; Layfield & Dobbins, 2002). Developed by Borich (1980), the model assesses teachers' perceptions about important educational programming needs. Specifically, the model allows researchers to collect and analyze data representing teachers' "perceived level of importance" and "perceived level of competence" of professional competencies that have been identified through research. The discrepancy between these two positions can be used as an index to determine professional development programs that will be of most importance.

The Borich model adds validity to the process of identifying the continual education needs of teachers. That is, researchers have determined that ratings based solely on importance or competence levels are not as valid as a combination of the two ratings (Garton & Chung, 1996; Joerger, 2002). Therefore, it was determined that an instrument based on the Borich model to be the best model for achieving the purpose of the study.

### **Purpose and Objectives**

The purpose of this study was to assess Idaho secondary family and consumer sciences teachers' perceptions of importance and competence as they relate to specific program management competencies, and use that information to ascertain teachers' professional development needs of secondary family and consumer sciences teachers. This study of program management competencies represents a subset of a larger study related to the professional development needs of career and technical educators. Data related to FACS was extracted and used to answer the research objectives. Specific objectives were to:

1. Determine the background characteristics of Idaho secondary family and consumer sciences teachers;
2. Determine the perceived level of importance Idaho secondary family and consumer sciences teachers place on competencies associated with program management;
3. Determine Idaho secondary family and consumer sciences teachers' perceived level of competence associated with program management; and
4. Determine the perceived professional development needs of Idaho secondary family and consumer sciences teachers.

### **Methodology**

The target population for this study consisted of secondary family and consumer sciences teachers in Idaho as identified by the state division of professional-technical education for the 2008-09 school year (N=146). Because of the use of a census population, no sampling methods were utilized and consequently, generalizability of the findings may be limited to the population of the study.

### **Instrumentation**

The survey instrument was developed by Kitchel et al. (2009), which was adapted from previous research by Duncan, Peake, Ricketts, and Uessler (2006) based on the principles of the Borich Needs Assessment Model (Borich, 1980). Borich (1980) pioneered his model in an effort

to design a survey instrument that would allow data to be weighed and ranked in order of priority. However, a variety of approaches have been taken to analyze data collected from an instrument based on the Borich Needs Assessment Model (Borich, 1980). Garton and Chung (1997) used mean weighted discrepancy score (MWDS) ranking, as well as quadrant analysis to evaluate the data. They found both methods to be effective in identifying the educational needs of teachers. Edwards and Briers (1999) indicated that the MWDS is more valid than a direct assessment and recommended that “those responsible for in-service professional development...prioritize and allocate resources based on mean weighted discrepancy score rankings” (p. 47).

A panel of experts consisting of faculty from the University of Idaho, University of Georgia, an Arizona CTE teacher, and four pre-service CTE teachers refined the survey items to be appropriate for CTE and the teachers in Idaho. The panel also evaluated the instrument for face, content, and construct validity. A reliability coefficient alpha was calculated for the items on both the “Importance” ( $\alpha = .931$ ) and “Competence” scales ( $\alpha = .941$ ), the results of which indicated an instrument with a high degree of internal consistency.

The instrument used for the study consisted of two sections. Section one was composed of 24 items specific to program management. The instrument design allowed teachers to rate each of the 24 program management items on two distinct scales. The first response scale represented teachers’ perceived level of importance of the item to the field of FACS education (1 = Not Important, 2 = Little Importance, 3 = Somewhat Important, 4 = Important, and 5 = Very Important). The second response scale represented teachers’ perceived level of competence for each item (1 = Not Competent, 2 = Little Competence, 3 = Somewhat Competent, 4 = Competent, and 5 = Very Competent). Section two of the survey collected data concerning teachers’ background characteristics.

The study used a descriptive research design with an online survey method. Participants were contacted by email during the spring of 2009 and asked to participate in the study by completing the web-based survey. Online survey procedures suggested by Dillman (2007) were used to increase the response rate. After three email reminders, a total of 86 (60%) FACS teachers completed the survey instrument.

Analysis of non-response bias is important in determining a sample’s representativeness of the population from which it was drawn. For this study, non-response bias was evaluated by comparing the average importance and competence ratings between early respondents ( $n = 41$ ) to late respondents ( $n = 17$ ) through the use of an independent samples *t*-test. No statistically significant difference was found on the importance ratings between early respondents ( $M = 4.13$ ,  $SD = .39$ ) and late respondents ( $M = 3.86$ ,  $SD = .71$ ) ( $t(20.3) = -1.506$ ,  $p > .05$ ). The results of the independent samples *t*-test comparing competence ratings between early responders ( $M = 3.49$ ,  $SD = .59$ ) and late responders ( $M = 3.36$ ,  $SD = .91$ ) also found no statistical difference between groups ( $t(21.8) = .519$ ,  $p > .05$ ). Based on these findings, the sample data was determined to be representative of the population from which it was drawn.

Analysis of the data involved the use of SPSS and MS Excel™. The importance and competence scores were used to determine professional development needs through the calculation of a mean weighted discrepancy score (MWDS) for each item. The calculation of the MWDS involved subtracting the competence score from the importance score (discrepancy score), multiplying that value by the mean importance rating of the item (weighted discrepancy score), and lastly, finding the average of all weighted discrepancy scores for each competence item (Borich, 1980; Joerger, 2002).

## Findings

### **Research Objective 1: Determine the background characteristics of Idaho secondary family and consumer sciences teachers.**

Nearly all of the respondents were female, with only 1 out of 86 being male. The majority of the teachers were single (81.4%) and in the age range of 45 to 65 years old (71.1%). Forty-eight (56.9%) teachers had over 10 years of experience, and the majority had earned a four-year degree (72.1%) see Table 1.

Table 1

*Background Characteristics of Idaho Family and Consumer Science Teachers (n=86)*

		<i>n</i>	<i>%</i>
Gender:	Female	85	98.8%
	Male	1	1.2%
Married Status:	Married	12	14.0%
	Single	70	81.4%
	Not Indicated	4	4.7%
Age:	<= 25	2	2.3%
	25 to 34	10	11.6%
	35 to 44	10	11.6%
	45 to 54	34	39.5%
	55 to 64	28	32.6%
	>= 65	1	1.2%
	Not Indicated	1	1.2%
Education:	2-year Associates degree	2	2.3%
	4-year degree (Bachelor)	62	72.1%
	Masters degree	21	24.4%
	Not Indicated	1	1.2%
Teaching Experience:	0 (just completed teacher training)	0	0.0%
	1-2 years	11	12.8%
	3-5 years	13	15.1%
	6-10	13	15.1%
	11-20	23	26.7%
	>= 20	25	29.1%
	Not Indicated	1	1.2%

### **Research Objective 2: Determine the perceived level of importance Idaho secondary family and consumer sciences teachers place on competencies associated with program management.**

Of the 24 program management items, 19 were rated “important” or “very important.” The average importance ratings ranged from a low of 2.74, to a high of a 4.63 on the 5-point scale (Table 2). The items rated most important were the development of relationships with fellow teachers and administrators ( $M = 4.63$ ,  $SD = 0.60$ ); and providing guidance and career exploration activities to students ( $M = 4.61$ ,  $SD = 0.60$ ). Conducting an adult program ( $M = 2.72$ ,  $SD = 1.25$ ) and needs assessment to determine Programs of Study/Pathways ( $M = 3.67$ ,  $SD = 1.05$ ) were the items rated least important.

**Research Objective 3: Determine Idaho secondary family and consumer sciences teachers’ perceived level of competence associated with program management.**

FACS teachers were asked to rate their perceived level of competence based on the same 24 importance statements. For the purpose of this study, the items rated least competent assisted in the calculation of determining professional development needs. Conducting an adult program ( $M = 2.74$ ,  $SD = 1.29$ ); grant writing and funding opportunities ( $M = 2.96$ ,  $SD = 1.24$ ); and establishing and organizing co-op/internships ( $M = 3.09$ ,  $SD = 1.03$ ) were the items rated least competent among the teachers (Table 2). Teachers perceived that they were “very competent” ( $M = 4.5$ - $5.0$ ) or “competent” ( $M = 3.5$ - $4.49$ ) in 12 of the 24 statements. The top three items rated by perceived level of competence were development of relationships with fellow teachers and administrators ( $M = 4.25$ ,  $SD = 0.80$ ); conducting parent/teacher conferences ( $M = 4.07$ ,  $SD = 0.78$ ); and develop and maintain required safety standards ( $M = 4.04$ ,  $SD = 1.01$ ).

Table 2  
*Program Management Importance and Competence Ratings of Idaho Family and Consumer Science Teachers*

Topic	Importance <i>M / SD</i>	Competence <i>M / SD</i>
Developing relations with fellow teachers and administrators.	4.63/0.60	4.25/0.80
Providing guidance & career exploration activities to students.	4.61/0.60	3.96/0.81
Develop and maintain required safety standards (State and Federal/OSHA standards)	4.55/0.68	4.04/1.01
Understanding federal (Perkins), state, and local funding.	4.51/0.81	3.35/1.11
Program related trends & current issues.	4.40/0.66	3.74/0.85
Identifying appropriate course textbooks, references, and materials.	4.39/0.73	3.96/0.92
Determining CTE program content for specific courses.	4.34/0.88	3.88/0.87
Developing an effective public relations program.	4.33/0.72	3.43/1.07
Evaluating a CTE program.	4.25/0.79	3.71/0.94
Grant writing and funding opportunities	4.23/0.99	2.96/1.24
Conducting parent/teacher conferences.	4.22/0.92	4.07/0.78
Developing curriculum-based School-to-Work activities.	4.20/0.95	3.31/1.23

Issues involved with traveling with students.	4.17/0.98	3.63/1.11
Coordinating activities with local organizations/agencies.	4.13/0.92	3.29/1.13
Recruiting/promoting student involvement with CTSOs.	4.12/1.05	3.48/1.16
Fundraising for CTSOs.	4.10/1.05	3.36/1.12
Establishing and using a program advisory committee.	4.10/1.00	3.69/0.97
Integrating CTSO activities into the regular classroom.	4.09/1.06	3.31/1.11
Establishing and organizing co-op/internships.	4.03/1.15	3.09/1.30
Planning and conducting student field trips.	3.87/0.99	3.88/0.95
Completing reports for local and state agencies.	3.85/1.24	3.70/0.95
Career Clusters & Programs of Study / Pathways.	3.80/1.07	3.48/0.94
Conducting needs assessments to determine Programs of Study / Pathways.	3.67/1.05	3.18/0.93
Conducting an adult program.	2.74/1.25	2.74/1.29

**Research Objective 4: Determine the perceived professional development needs of Idaho secondary family and consumer sciences teachers.**

The MWDS combined perceived levels of importance with levels of competency to identify the competencies that have the highest weighted difference when averaged among the sample. Items with higher MWDS are those with the greatest need for development. Based on the MWDS ranking; the most needed areas for professional development are grant writing and funding opportunities (5.47); understanding federal (Perkins), state, and local funding (5.20); developing an effective public relations campaign (3.87); and establishing and organizing co-op/internships (3.80) (Table 3). The areas identified as lowest priority for professional development needs are planning and conducting student field trips (-0.05), and conducting an adult program (0.00).

Table 3

*Program Management Professional Development Needs of Idaho Family and Consumer Science Teachers: A Mean Weighted Discrepancy Score Ranking*

Topic	MWDS
Grant writing and funding opportunities	5.47
Understanding federal (Perkins), state, and local funding.	5.20
Developing an effective public relations program.	3.87
Establishing and organizing co-op/internships.	3.80
Developing curriculum-based School-to-Work activities.	3.71
Coordinating activities with local organizations/agencies.	3.44

Integrating CTSO activities into the regular classroom.	3.19
Fundraising for CTSOs.	3.05
Providing guidance and career exploration activities to students.	2.91
Program related trends and current issues.	2.90
Recruiting/promoting student involvement with CTSOs.	2.63
Develop and maintain required safety standards (State & Federal/OSHA standards)	2.38
Issues involved with traveling with students.	2.28
Evaluating a CTE program.	2.25
Determining CTE program content for specific courses.	1.97
Conducting needs assessments to determine Programs of Study / Pathways.	1.84
Identifying appropriate course textbooks, references, and materials.	1.83
Developing relationships with fellow teachers and administrators.	1.79
Establishing and using a program advisory committee.	1.66
Career Clusters and Programs of Study / Pathways.	1.24
Conducting parent/teacher conferences.	0.65
Completing reports for local and state agencies.	0.58
Conducting an adult program.	0.00
Planning and conducting student field trips.	-0.05

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### **Discussion and Conclusions**

The purpose of the study was to assess Idaho secondary family and consumer sciences (FACS) teachers' perceptions of importance, competence, and professional development needs related to specific program management competencies. The findings of the study can be used to enhance professional development activities, thus strengthening FACS teachers' competency levels with the responsibilities associated with program management.

Idaho FACS teachers indicated that developing relationships with fellow teachers and administrators, providing guidance and career exploration opportunities to students, maintaining required safety standards, and understanding funding sources, to be of most importance. The top rated item, that being the development of relationships with colleagues, is fundamental to the empowerment of learning communities and has been associated with school reform. Bullough (2007), in a historical analysis of barriers to school reform, found that reform must involve teacher education, and that for this education to be powerful it should involve building trust and common experiences amongst teachers in order to empower them to solve problems (Bullough, 2007). Regardless of the specific item addressed, each of the top rated items represent critical elements within program management.

The least competent items identified in this study provide valuable information in the determination of professional development needs. That is, these items are calculated in the MWDS ranking and serves to identify areas that warrant improvement as indicated directly by the teachers. FACS teachers felt least in their ability with conducting an adult program, grant

writing and fundraising, and establishing and organizing co-op/internships. The teachers considered themselves most competent in their ability to develop relationships with fellow teachers and administrators, and to conduct parent/teacher conferences.

The MWDS ranking represents the discrepancy between the perceived importance of an item and the teacher's competency towards it. Priority areas for program management professional development needs determined by the MWDS were grant writing and funding opportunities, understanding funding sources, developing an effective public campaign, and establishing and organizing co-op/internships. Similar to this study, other researchers have found that grant writing ( Cannon, et al., 2010; Miles, 2002) and developing an effective public relations program (Cannon, et al., 2010; Garton & Chung, 1996; Layfield & Dobbins, 2002) to be important professional development needs.

The MWDS ranking and the importance ratings together form a basis for a framework of educational needs of FACS educators. The items ranked as most important form a foundation that all teachers should have, thus being particularly relevant to initial teacher preparation. These included development of relationships with fellow teachers and administrators, and providing guidance and career exploration activities to students. In addition, and separately from the competency ratings, the importance ratings are of further interest because they provide insight into the perceptions of teachers regarding various aspects of teaching and program management. This information may serve as an assessment of the current thinking of educators within FACS and contribute to an understanding of strengths, weaknesses, and professional development needs. For example, a critical review of the importance ratings provides an indication of teachers' knowledge of national trends and legislative priorities, and may indicate needs not captured by teachers' perceptions. The competencies related to career clusters, programs of study and pathways received relative low importance ratings. This could be reflective of a lack of understanding and experience with the career cluster framework in Idaho among study respondents. Despite the ratings given by teachers, these areas are important state and national initiatives, and identified as critical to career and technical programs in the latest Carl D. Perkins legislation (National Career Technical Education Foundation (NCTEF), 2009).

When examining the findings for professional development needs of FACS teachers, it is important to consider experience and stage of career. Majority of the FACS teachers ( $N = 48$ ; 56.9%) in this study had over 10 years of teaching experience thus presumably having more opportunity throughout their career for exposure to program management related tasks than beginning teachers. Additionally, veteran FACS teachers may feel more confident and/or exhibit a stronger self-efficacy (belief in their ability) with individual competency items. Although this study did not examine strata, determining if professional development needs differ for beginning and veteran teachers warrants investigation.

### **Implications**

Overall, the findings of the study identified and prioritized professional development needs of Idaho secondary family and consumer sciences (FACS) teachers. Now a framework for professional development opportunities can be developed (Niven, 1993) that can be specifically tailored to the needs of Idaho FACS teachers. The findings of the study have implications for professional development of FACS teachers and future research.

Professional development of secondary FACS teachers involves pre-service and in-service learning. It is at the pre-service level that teachers form a foundation of knowledge, skills, and philosophy that prepares them for successful careers in education. Idaho FACS

education faculty and others involved with the initial preparation of FACS teachers need to review pre-service preparation curriculum in relationship to the importance ratings and MWDS rankings identified within this study to ensure these items are represented within their teacher preparation program. Adequate preparation of a FACS teacher for their holistic role may be the difference between an unsuccessful program with a dissatisfied teacher or a successful program and satisfied teacher.

For in-service professional development activities, Idaho FACS education faculty and Idaho FACS education state staff should develop training opportunities that address the professional development needs determined through the analysis of the importance and competence ratings (i.e., mean weighted discrepancy scores, MWDS) of this study. Communication of these results to school administrators is also important due to their role and influence on district level in-service training provided to teachers. Professional development activities related to program management should include the improvement of the skills and knowledge necessary to (a) find and obtain supplementary funding for program activities, and (b) address interactions FACS teachers have with the public through co-op/internships and public relations activities. Professional development in these two areas is important for the sustainability and perceived public value of FACS programs.

Identification of priority areas is an important, but preliminary step in preparing and maintaining quality teachers. It must follow that appropriate learning activities be developed, and then delivered in an accessible way. To ensure effective means of delivery of these professional development opportunities, future research should investigate motivators and barriers that promote or limit teachers' participation with them. Another area for further research is the comparison of teaching experience to determine if professional development needs differ for beginning and experienced teachers. The findings of this study are representative of Idaho but may serve as a model for other states interested in determining program management professional development needs of secondary FACS teachers.

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