

CONTEXTUAL TEACHING AND LEARNING PRACTICES IN THE FAMILY AND CONSUMER SCIENCES CURRICULUM

Ifraj Shamsid-Deen
Columbia Middle School, Dekalb County, Georgia

Bettye P. Smith
University of Georgia

The purpose of this study was to determine the level of knowledge family and consumer sciences teachers had on the concept of contextual teaching and learning, and the occurrence of contextual teaching and learning practices in their classes. Two hundred and thirty teachers responded to this survey. Results of this study showed that family and consumer sciences teachers had a high to very high level of knowledge about contextual teaching and learning, whereby teachers with 31 to 40 years of teaching experience had the highest overall level of knowledge. Four of the five contextual teaching and learning practices occurred daily in three-fourths of family and consumer sciences teachers' classrooms. When teacher groups based on years of teaching experience were considered, teachers with 21 to 30 years of teaching experience had the highest daily occurrence of contextual teaching and learning practices in their classes. On types of family and consumer sciences programs, teachers in an occupational program had a higher daily occurrence of contextual teaching and learning practices than teachers in an exploratory, comprehensive, or combination program. In regards to school location, teachers whose schools were located in a rural area had a higher daily occurrence of contextual teaching and learning practices than teachers whose schools were located in a suburban or urban area.

The teaching and learning that take place in classrooms across America are for transfer (Fogarty, 1992) of knowledge and skills to family, career, and society. Transfer of learning has been described as the ultimate aim of teaching (Macaulay, 2000). Transfer refers to a phenomenon in which something learned in one situation is carried over to another. A student's ability to transfer information learned in a typical classroom setting to real life situations is sporadic and by chance (Greeno, 1997). According to Lindsay (2000), students are expected to recall what they have learned through traditional teaching methods, usually lectures, and apply the information in a realistic setting. The problem occurs when the student is unable to identify what knowledge is needed to address a problem outside of the context in which it was learned. It is believed that when students are taught in a context that closely resembles the situation in which they will have to apply the information, a greater chance for transfer of learning occurs (Schell & Black, 1997). The chances of enabling students to transfer learning from one teaching setting to another and/or to real life situations may increase when teachers use contextual teaching and learning practices. Thus, transfer of learning was the conceptual framework for this study on contextual teaching and learning practices.

Contextual teaching and learning is defined as a conception of teaching and learning that helps teachers relate subject matter content to real world situations (United States Department of Education Office of Vocational and Adult Education, 2001). Berns and Erickson (2001) further

explain contextual teaching and learning as an innovative instructional process that helps students connect the content they are learning to the life contexts in which that content could be used. Problem-solving, self-regulated learning, teaching anchored in students' diverse life-contexts, learning from each other and together, authentic assessment, and the use of a variety of context such as home, community, and work sites, have been identified as practices of contextual teaching and learning (Sears & Hersh, 1998). Although these practices have been identified in the literature as characterizing contextual teaching and learning, they are not exclusive to the concept; these practices are also present in other instructional processes.

Family and consumer sciences is a discipline that is closely related to real life. Family and consumer sciences educators are dedicated to helping individuals help themselves through a better understanding and control of family and community life (Family and Consumer Sciences Education, 2005). Additionally, educators work to improve the quality of family and consumer sciences instruction and to broaden the scope of the curriculum (Family and Consumer Sciences Education, 2005) by developing, integrating, and providing practical knowledge about everyday life that can be used to make sound decisions. Relating the content to real life situations and problem solving are major contextual teaching and learning practices, and are embedded in the family and consumer sciences curriculum. According to Redick (1998), the curriculum draws upon the context of the situation, and helps students connect ideas so they can construct new solutions to real-world problems. Based on findings from Lynch and Harnish (2003) which included a family and consumer sciences teacher, students gain a better understanding of and retained the material/subject matter longer when contextual teaching and learning practices were used. Therefore, it is theorized that contextual teaching and learning practices can strengthen and enhance the delivery of a contemporary family and consumer sciences curriculum and help students apply information obtained in classes to other educational settings and everyday life. Additionally, using such innovative practices as those embodied in the contextual teaching and learning concept will also help position family and consumer sciences educators as educational leaders.

Purpose of Study

The purpose of this study was to determine the level of knowledge family and consumer sciences teachers had on the concept of contextual teaching and learning, and determine the extent that contextual teaching and learning practices occurred in their classes.

Review of Literature

Although contextual teaching and learning is a relatively new concept in the field of education, its principles and practices have been around for centuries (Dijkstra, 1998). The concept of teaching students in a context as close to real life as possible can be dated back to the 16th century. Michael of Montaigne, a Renaissance writer, believed that students could learn more from traveling and experiencing the world first hand than they could from studying a textbook (Ediger, 1997). In fact, the school fieldtrips that students take today could be a result of the belief that students learn without the textbook; fieldtrips give students an opportunity to interact with society and gain valuable experiences. Creating a setting in which students learn as realistically as possible is a goal of teachers who use contextual teaching and learning. Teachers who use contextual teaching and learning practices not only place emphasis on fieldtrips, but they also emphasize practices such as learning by doing, problem solving, and cooperative

learning. Following are several studies that entailed practices of contextual teaching and learning.

The one study that dealt solely with contextual teaching and learning was conducted by Lynch and Harnish (2003) with a group of novice teachers. The study was designed to better understand the applications of contextual teaching and learning in the actual teaching context. Findings showed that contextual teaching and learning strategies used by novice teachers were problem-based learning, project-based learning, collaborative learning, real-world applications, and authentic assessment. Novice teachers in this study felt that contextual teaching and learning strategies and practices had a positive impact on student engagement and mastery.

Cockrell, Caplow, and Donaldson (2000) concluded that problem solving helps students make the connection between education and application. In their study, participants were students who had little or no knowledge of problem-based learning. Students were given case studies and worked in groups to find solutions. Data sources included a mid-semester evaluation on the strengths and weakness of problem solving, and an end of the semester open-ended questionnaire. Researchers found that students gained confidence in their knowledge of the content and felt a sense of ownership. They also reported that students began to use the knowledge and skills learned in the course in other settings. Some of the skills the students developed from cooperatively solving problems were a better grasp of the information, improved critical thinking skills, and the ability to work better with others (Cockrell, Caplow, & Donaldson, 2000). Also, problem-based learning has been used in foods and nutrition classes (Katz & Smith, 2005; Smith, 2003) to accomplish stated objectives. A Taste Test was arranged to answer the question: can you distinguish qualities of the types of salad greens? Students actively tasted and completed an illustrative chart to discover and solve the problem while answering the question. The teacher believed that students were able to make distinctions when all the salad greens appeared parallel to each other rather than in isolation.

Cooperative learning provides students with the opportunity to interact with each other, and also enables students to gain valuable social skills. Veenman, Kenter, and Post (2000) confirmed the improved group relationships, and that on-task behavior and self-esteem also improved. Additionally, Lincoln and McAllister (1993) found cooperative or peer learning can encourage students to be more independent, self-directed, and self-supervising. Smith (2003) observed a family and consumer sciences creative foods class and discovered that students were actively engaged in cooperative learning projects. A follow-up interview with the teacher revealed that students' grades improved when they worked together in groups.

Parnell (1999) included 350 students in his study. He formed a team composed of the principal, five academic teachers, and two career and technical education teachers. Teachers were trained on how to incorporate contextual teaching and learning strategies into their curriculum. When asked to agree or disagree with the statement, I think I learned more in my contextual teaching class than if the subject had been taught in a normal way, 70% of the students agreed. Other findings of contextual teaching and learning in the study included—it engages and motivates students, improves students productivity, does not require traditional texts, improves attendance, and increases student and teacher energy levels.

Griffin and Griffin (1996) found that students benefit in numerous other ways from instruction that is taught in context. In the study, students who were taught using contextual teaching and learning strategies were evaluated using a performance test. Results were compared to the performance test results of students who were taught using traditional teaching

methods. The first test result displayed no significant difference but when the students were tested later, the students who were taught in context did much better.

By using contextual teaching and learning practices students are engaged and their performance is improved. Therefore, this suggests that there is a need to continue use and exploration of contextual teaching and learning practices.

Method

Participants

The population included family and consumer sciences teachers in Georgia who attended an annual Winter In-service Conference. Of the 331 teachers in attendance, 230 responded to the questionnaire.

Instrument

The instrument contained three parts; demographic and programmatic information, and two scales. These scales and all demographic items used in the instrument were developed by the researchers after a review of the literature. The face and content validity of the instrument were evaluated by an expert panel of career and technical educators, both university faculty and teachers enrolled in the graduate program. Changes suggested by the validation panel such as wording of items and instructions for completing the instrument were made.

Based on Litwin (1995) and Nunnally (1978) estimations, a score of .70 or higher on Cronbach's alpha suggests good reliability. For this study, the overall instrument showed a Cronbach's alpha score of .78, slightly above the .70 recommended.

Part I of the instrument sought both demographic and programmatic information. Part II assessed teachers' level of knowledge on contextual teaching and learning which included 4 topical statements on a Likert type scale. The statements used were: I can define and explain contextual teaching and learning; I have tried to find resources that will help to incorporate contextual teaching and learning strategies; I am willing to use contextual teaching and learning strategies in my classroom; and I am interested in connecting family and consumer sciences content to real life situations. A 4-point scale was used where participants were asked to respond by identifying the following choices to each statement: strongly agree = 4, agree = 3, disagree = 2, or strongly disagree = 1.

A Thurston type scale was used for Part III of the instrument to determine the frequency of using contextual teaching and learning practices. A Thurston scale is an attitude measurement in which values are assigned to statements and the subjects are asked to respond to these statements (Mueller, 1986). A Thurston type is ordered from the most favorable to most unfavorable situation. The 4-point Thurston scale in this study was ordered from most frequent to less frequent. The anchors were often, sometimes, occasionally, or never. For purpose of this study, the anchors indicated the following: often = daily; sometimes = weekly; occasionally = monthly; and never = not at all. The statements used to measure the occurrence of contextual teaching and learning practices in the family and consumer sciences teachers classrooms were: students are actively engaged in classroom activities; students learn from one another through cooperation and teamwork; learning is related to real world and or simulated issues and meaningful problems; higher order thinking and problem solving are emphasized; and learning occurs in multiple contexts.

Findings are reported as descriptive and inferential statistics. Descriptive statistics including means, standard deviations, frequencies, and percents were used to understand the

data. Mean ratings of 1.0 to 1.75 represent low, 1.76 to 2.25 moderate, 2.26 to 3.25 high, and 3.26 to 4.00 very high. Inferential statistics including one way analyses of variance (ANOVAs), Tukey's post hoc tests, and Chi-squares were employed to determine differences between teacher groups, program types, and school locations. The a priori alpha level for analytical test of differences was established at the .05 level.

Findings

Characteristics of teachers

Two hundred and thirty family and consumer sciences teachers participated in this study. They ranged in age from 22 to 69 with an average age of 44.7. Teachers also varied in their years of teaching experience, 1 to 39, with an average of 16.5. The majority of the teachers were Caucasian (77%) and less than a fourth (21%) was African-American.

Level of knowledge on contextual teaching and learning

Teachers' ratings for level of knowledge on contextual teaching and learning are shown in Table 1. Slightly more than a fourth (28%) and almost a half (48%) of the teachers strongly agreed and agreed, respectively, that they could define and explain contextual teaching and learning. Two-thirds of the teachers have tried to find resources on contextual teaching and learning, 33% strongly agreed and 34% agreed. On willingness to use contextual teaching and learning practices, 38% of the teachers strongly agreed while 55% of the teachers agreed. When teachers were queried on their interest in connecting their subject content to real life situations, a majority 77% and 18% of the teachers strongly agreed and agreed, respectively. When means were calculated to determine overall level of knowledge on contextual teaching and learning for family and consumer sciences teachers, willingness to use contextual teaching and learning ($M = 3.3$) and interest in connecting subject matter to real life situations ($M = 3.7$) received the highest means. I can define and explain contextual teaching and learning received the next highest rating ($M = 2.9$) whereas I have tried to find resources received the lowest rating ($M = 2.8$). Based on the representation of the mean ratings, teachers had a very high level of knowledge on two statements, willingness to use and interest in connecting contextual teaching and learning. Teachers had a high level of knowledge on the remaining statements, I can define and explain, and I have tried to find resources on contextual teaching and learning.

Table 1
Family and Consumer Sciences Teachers Level of Knowledge on Contextual Teaching and Learning

Statement	SA		A		D		SD	
	F	%	F	%	F	%	F	%
I can define and explain contextual teaching and learning ^a	65	28	111	48	33	14	19	8
I have tried to find resources on contextual teaching and learning ^b	50	22	110	48	42	18	21	9
I am willing to use contextual teaching and learning ^c	87	38	127	55	4	2	8	4
I am interested in connecting family and consumer sciences content to real life situations ^d	178	77	41	18	0	0	9	4

^a $M = 2.98, SD = .88$

^b $M = 2.85, SD = .87$

^c $M = 3.30, SD = .68$

^d $M = 3.71, SD = .67$

Note. SA (strongly agree) = 4, A (agree) = 3, D (disagree) = 2, and SD (strongly disagree) = 1.

Years of teaching experience and level of knowledge on contextual teaching and learning

Teachers varied in their years of teaching experience. Ten teachers reported 1 year of experience while 37, 38, and 39 years of teaching experience were reported by one teacher for each year. In order to better understand the differences in teachers in various stages of their careers, teachers were sub-grouped according to number of years of teaching experience. This grouping yielded the following categories of years of teaching for the participants: 1-10, 11-20, 21-30, and 31-40. On the Certified Personnel Data section of the Georgia Public Education Report Card, teachers are grouped in ten-year increments for years of experience (Georgia Department of Education, 2005). Teachers in this study were categorized accordingly.

Frequencies for years of teaching experience were disproportionately distributed among the four groups (see Table 2). The category representing 11-20 years of teaching experience was the largest group, ($n = 77$). The second largest group (72) represented participants who had taught 21-30 years, while the lowest count ($n = 11$) was reported for the 31 to 40 years of teaching.

One-way ANOVAs were used to determine if teacher groups were different based on years of teaching experience and the four topical statements on knowledge of contextual teaching and learning. Analyses indicated no significant differences on level of knowledge on contextual teaching and learning and any teacher group. Means and standard deviations for teachers' level of knowledge for the four topical statements on contextual teaching and learning in each teacher group are shown in Table 2. Teachers who had taught 31 to 40 years had the highest overall mean ($M = 3.84$) on knowledge of contextual teaching and learning. Teachers in the 31 to 40 years of teaching experience group had a very high level of knowledge on contextual teaching and learning.

Table 2

Years of Teaching Experience and Teachers Level of Knowledge on Contextual Teaching and Learning (N = 230)

Teaching Experience (n)	1-10 (70)		11-20 (77)		21-30 (71)		31-40 (10)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Statement								
Definition	2.88	.88	3.04	.88	2.96	.89	3.40	.70
Resources	2.87	.84	2.84	.93	2.84	.88	2.82	.75
Willingness	3.29	.62	3.34	.66	3.26	.77	3.40	.52
Interested	3.80	.50	3.73	.60	3.60	.87	3.82	.41
Overall	3.65	.38	3.70	.38	3.74	.32	3.84	.26

Occurrence of contextual teaching and learning practices in family and consumer sciences classes

Contextual teaching and learning practices have been implemented in family and consumer sciences classes (Smith, 2003). The next four tables show teachers' ratings on contextual teaching and learning practices. Identified practices for contextual teaching and learning are: students are actively engaged in classroom activities; students learn from one another through cooperation and teamwork; learning is related to real world and or simulated issues and meaningful problems; higher order thinking and problem solving are emphasized; and learning occurs in multiple contexts. Table 3 shows the occurrence of contextual teaching and learning practices in family and consumer sciences classrooms. Findings revealed that overall 4 of the 5 contextual teaching and learning practices were used often by almost three-fourths of family and consumer sciences teachers. In this study, often was used to indicate daily. Following are the contextual teaching and learning practices and the percent of teachers who used them daily: actively engaged students (82%); learn from each other or teamwork (75%); related learning to real world (78%); and used multiple contexts (71%). Higher order thinking and problem solving were used often by 58% of the teachers. Never or not at all was not selected by any of the 230 teachers in this study.

Table 3
Occurrence of Contextual Teaching and Learning Practices in Family and Consumer Sciences Classes

Statement	Daily		Weekly		Monthly	
	F	%	F	%	F	%
Actively Engaged	189	82	37	16	4	2
Teamwork	173	75	48	21	8	4
Real World Learning	179	78	46	20	2	1
Problem Solving	133	58	87	38	9	4
Learning Occurs in Multiple Contexts	163	71	58	25	8	4

Years of teaching experience and contextual teaching and learning practices

Frequencies and percents for contextual teaching and learning practices and each teacher group based on years of teaching experience are shown in Table 4. Teachers who had taught 21 to 30 years had the highest percentages of daily use on contextual teaching and learning practices followed by teachers with 31 to 40 years of teaching experience. Teachers with 21 to 30 years of teaching experience had highest percents of daily use on actively engage students, learn from each other/teamwork, and multiple contexts. Teachers with 31 to 40 years of teaching experience had the highest percents of daily use on real world learning and problem solving. Chi-squares were used to determine if teacher groups were different based on years of teaching experience and contextual teaching and learning practices. Analyses indicated no significant differences on contextual teaching and learning practices and any teacher group.

Table 4
Effects of Years of Teaching Experience on Contextual Teaching and Learning Practices

Practice and Years Teaching Experience	Daily		Weekly		Monthly		Total
	Often		Sometimes		Occasionally		
	F	%	F	%	F	%	

Actively Engaged							
1-10	54	77	13	19	3	4	70
11-20	63	82	13	17	1	1	77
21-30	60	83	12	17	0	0	72
31-40	9	82	1	9	1	9	11
Teamwork							
1-10	53	76	16	23	1	1	70
11-20	54	70	21	27	2	3	77
21-30	56	79	11	16	4	6	71
31-40	8	73	2	18	1	9	11
Real World							
1-10	52	74	17	24	1	1	70
11-20	60	78	16	21	1	1	77
21-30	56	78	14	20	2	3	72
31-40	10	100	0	0	0	0	10
Problem Solving							
1-10	36	51	31	44	3	4	70
11-20	47	61	27	35	3	4	77
21-30	43	60	28	39	1	1	72
31-40	7	64	3	27	1	9	11
Multiple Contexts							
1-10	44	63	24	34	2	3	70
11-20	56	74	16	21	4	5	77
21-30	56	79	13	18	2	3	72
31-40	8	73	3	27	0	0	11

Program type and contextual teaching and learning practices

Occurrence of contextual teaching and learning practices based on each type of program is presented in Table 5. The program types were exploratory (middle school), comprehensive (preparation for work of home), occupational (preparation for work/career), and combination (both comprehensive and occupational). Of the 230 teachers, 48 (21%) taught in an exploratory program, 142 (62%) in a comprehensive program, 22 (10%) in an occupational program, and 18 (8%) in a multiple program. However, teachers who were teaching in an occupational program had the highest percent of daily use on 3 of 5 of the contextual teaching and learning practices. Those practices were: teamwork, real world learning, and higher order thinking and problem-solving. Teachers in an occupational program and those in a combination program received the same percent of daily use on the practice of multiple contexts. Chi-squares were used to determine if teachers in different program types were different on contextual teaching and learning practices. Analyses indicated no significant differences on any program type and contextual teaching and learning practices.

Table 5
Effects of Family and Consumer Sciences Teachers Program Type on Contextual Teaching and Learning Practices

Program	Daily Often	Weekly Sometimes	Monthly Occasionally	Total
---------	----------------	---------------------	-------------------------	-------

	F	%	F	%	F	%	
Actively Engaged							
Exploratory	40	83	8	17	0	0	48
Comprehensive	111	78	26	18	5	4	142
Occupational	19	86	3	14	0	0	22
Combination	16	89	2	11	0	0	18
Teamwork							
Exploratory	35	72	11	23	2	4	48
Comprehensive	102	72	34	24	5	4	141
Occupational	21	96	1	5	0	0	22
Combination	13	72	4	22	1	6	18
Real World							
Exploratory	39	81	8	17	1	2	48
Comprehensive	103	73	35	25	3	2	141
Occupational	20	91	2	9	0	0	22
Combination	16	89	2	11	0	0	18
Problem Solving							
Exploratory	29	60	17	35	2	4	48
Comprehensive	76	54	60	42	6	4	142
Occupational	18	82	4	18	0	0	22
Combination	10	56	8	44	0	0	18
Multiple Contexts							
Exploratory	35	72	10	21	3	6	48
Comprehensive	97	69	39	28	5	4	141
Occupational	18	82	4	18	0	0	22
Combination	14	82	3	18	0	0	17

Geographical location of school and contextual teaching and learning practices

Table 6 shows the occurrence of contextual teaching and learning practices based on school location. Nearly half (44%) of the schools were located in a rural setting and another 44% in a suburban setting (100 and 102, respectively). Twelve percent or 44 of the schools were located in an urban setting. Teachers who were in a rural setting had the highest percent of daily use on 3 of the 5 contextual teaching and learning practices. Those practices were teamwork, real world, and multiple contexts. Chi-squares were used to determine if teachers in different geographical locations were different on contextual teaching and learning practices. Findings revealed that no significant differences were found.

Table 6
Effects of Family and Consumer Sciences Teachers Geographical Location of Schools on Contextual Teaching and Learning Practices

Location	Daily Often		Weekly Sometimes		Monthly Occasionally		Total
	F	%	F	%	F	%	

Actively Engaged							
Rural	81	81	18	18	1	1	100
Suburban	84	84	15	15	3	3	102
Urban	21	75	6	21	1	4	28
Teamwork							
Rural	80	80	17	17	3	3	100
Suburban	72	72	26	26	4	4	102
Urban	19	68	7	26	1	4	28
Real World							
Rural	82	82	16	16	2	2	100
Suburban	77	77	23	23	2	2	102
Urban	19	68	8	30	0	0	28
Problem Solving							
Rural	57	57	41	41	2	2	100
Suburban	59	59	38	38	5	5	102
Urban	17	61	10	36	1	4	28
Multiple Contexts							
Rural	76	76	22	22	2	2	100
Suburban	70	70	24	24	6	6	102
Urban	18	64	10	36	0	0	28

Conclusions and Discussion

Several findings emerged from this study. First, family and consumer sciences teachers had a high to very high level of knowledge on contextual teaching and learning. Second, a majority of family and consumer sciences teachers used contextual teaching and learning practices daily. Higher order thinking and problem solving were used less often than other contextual teaching and learning practices. Next, teachers did not differ on contextual teaching and learning knowledge or practices regardless of years of teaching experience, program type, or school location. With regards to years of teaching experience and contextual teaching and learning practices, teachers with 21 to 30 years of teaching experience had the highest occurrence of daily use of contextual teaching and learning practices. On type of family and consumer sciences program and contextual teaching and learning practices, teachers who were teaching in an occupational program had the highest occurrence of daily use of contextual teaching and learning practices. Last, teachers who were in a rural setting had the highest occurrence of daily use of contextual teaching and learning practices.

Although contextual teaching and learning is relatively new in education, family and consumer sciences teachers are knowledgeable about the concept. However, to increase knowledge level and promote the implementation of contextual teaching and learning practices, administrators of family and consumer sciences programs in Departments of Education and Local Education Agencies (LEA) are encouraged to offer professional development for teachers. In-service days, both local and state levels, would be opportune times to offer such professional development. Of special focus during professional development should be the implementation of contextual teaching and learning practices. It is recommended that actual case studies be used to

illustrate the implementation of contextual teaching and learning as well as help bridge the gap between theory and practice.

The finding that showed teachers with 31 to 40 years of teaching experience had the highest overall mean on knowledge of contextual teaching and learning was unique, but interesting. In previous studies concerning years of teaching experience and new initiatives or educational reform, teachers in the latter years of their careers usually do not rate higher than other teacher groups (Lokken, Cheek, & Hastings, 2003; Smith, Jones, & Hall, 2003;). In this study, longevity may have contributed to teachers' experimenting with innovative instructional processes and their subsequent use.

From these findings, it appears that contextual teaching and learning practices take place regularly in a majority of family and consumer sciences classrooms. This was especially true with the practices of having students actively engaged, learning related to real life, and learning from each other. While these practices are not exclusive to contextual teaching and learning, they have been identified as characteristics of contextual teaching and learning (Sears & Hersh, 1998), and effective in increasing student achievement (Lynch & Harnish, 2003). Cooperative learning or learning from each other not only improves social skills, but improve academic achievement as well (Stevens & Slavin, 1995). According to some researchers (Medrich, Calderon, & Hoachlander, 2002), students should be active participants in their learning. Therefore, family and consumer sciences teachers should continue to plan and deliver activities that satisfy student interest while meeting their needs. Higher order skills and problem solving are very important in family and consumer sciences as students are prepared to solve the practical, recurring problems they will encounter relating to their everyday lives; these practices help students learn to apply the knowledge they have learned (Cockrell, Caplow, & Donaldson, 2000). However, higher order skills and problem solving received the lowest ratings on daily use. Family and consumer sciences teachers should be encouraged to use this practice more often.

In this study, teachers in an occupational program had the higher percent of daily use on contextual teaching and learning practices. This may be due to the aim of the occupational program; that is, preparation for work. Since occupational programs require simulated or real laboratory experiences, the practices identified within the contextual teaching and learning construct are helpful to these teachers in achieving the goals of the program and adequately preparing students for work or a career.

Teachers who identified their schools in a rural area had the highest percent of daily use of contextual teaching and learning practices. Little has been written on family and consumer sciences teachers and school location or setting. These writers postulate that because of the possible limitations that the location imposes, teachers in rural schools have become creative with instructional processes and activities. Thereby, the use of contextual teaching and learning practices are more prevalent.

According to Lynch and Harnish (2003), higher levels of learning seemed to take place when contextual teaching and learning strategies were used by novice teachers. Students were more engaged, motivated, and attentive when contextual teaching and learning practices were used (Lynch & Harnish, 2003). It is recommended that family and consumer sciences teachers use and/or continue to use contextual teaching and learning practices in their teaching to engage and motivate students. These writers believe that the integration and adoption of innovative instructional processes such as contextual teaching and learning practices are important for family and consumer sciences as they continue to deliver a contemporary curriculum. We further

contend that contextual teaching and learning practices should be embraced in family and consumer sciences by teachers and other professionals.

Contextual teaching and learning can and should be viewed as an initiative in family and consumer sciences as it is a relatively new concept in education. The findings from this study indicate that family and consumer sciences teachers are abreast of this new initiative in education. These findings also lead one to believe that family and consumer sciences teachers are open to new initiatives, which support the idea that they can be considered and viewed as leaders in the educational arena.

Reference

- Berns, R. G., & Erickson, P. M. (2001). *Contextual teaching and learning: Preparing students for the new economy*. Columbus, OH: National Dissemination Center for Career and Technical Education.
- Cockrell, K., Caplow, J., & Donaldson, J. (2000). A context for learning: Collaborative groups in the problem-based learning environment. *The Review of Higher Education*, 23(3), 347-363.
- Dijkstra, S. (1998). The many variables that influence classroom teaching. *Issues in Education*, 4(1), 105-111.
- Ediger, M. (1997). Influences of ten leading educators on American education. *Education*, 118(2), 267-276.
- Family and Consumer Sciences Education (n.d.). Retrieved from <http://www.cwu.edu/~fandcs/fcsea/>
- Fogarty, R. (1992). Teaching for transfer. In A. Costa, J. Bellanca, & R. Fogarty (Eds.), *If minds matter: A foreword to the future* (pp. 211-223). Palatine, IL: Skylight.
- Georgia Department of Education. (2005). *Georgia Public Education Report Card*. Available [online]: <http://www.doe.k12.ga.edu>
- Greeno, J. G. (1997). On claims that answer the wrong questions. *Educational Researcher*, 26(1), 5-17.
- Griffin, M., & Griffin, B. (1996). Situated cognition and cognitive style: Effects on students' learning as measured by conventional test and performance test. *Journal of Experimental Education*, 64(4), 293-309.
- Katz, S. H., & Smith, B. P. (June, 2005). Problem-based learning in foods and nutrition classes: Using a contextual teaching and learning practice. *Proceedings for the Education and Technology Division of the American Association of Family and Consumer Sciences*, Minnesota: MN.
- Lincoln, M., & McAllister, L. (1993). Peer learning in clinical education. *Medical Teacher*, 15(1), 17-26.
- Lindsay, L. N. (2000). *Transformation of learners in a community of practice occupational therapy fieldwork environment*. Unpublished doctoral dissertation, University of Georgia.
- Litwin, M. (1995). *How to measure survey reliability and validity*. In A. Fink (Ed.), *The Survey Kit*. Thousand Oaks, CA: Sage.

- Lokken, S. L., Cheek, W. K., & Hastings, S. W. (2003). The impact of technology training on family and consumer sciences teacher attitudes toward using computers as an instructional medium. *Journal of Family and Consumer Sciences Education*, 21(1), 18-32.
- Lynch, R. L., & Harnish, D. (2003). *Implementing contextual teaching and learning by novice teachers*. Retrieved from <http://www.coe.edu/ctl/casestudy/Final.pdf>.
- Macaulay, C. (2000). Transfer of learning. In V. E. Cree & C. Macaulay (Eds.), *Transfer of learning in professional and vocational education* (pp. 1-26). New York, NY: Routledge.
- Medrich, E., Calderon, S., & Hoachlander, G. (2002). *Contextual teaching and learning strategies in high schools: Developing a vision for support and evaluation*. Berkely, CA: MPR Associates.
- Mueller, D. J. (1986). *Measuring social attitudes: A handbook for researchers and practitioners*. New York: Teachers College Press.
- Nunnally, J. (1978). *Psychometric theory*. New York: McGraw Hill.
- Parnell, D. (1999). Making it fly. *Techniques*, 74(2), 18-21.
- Redick, S. S. (1998). *Family and consumer sciences: A chapter of the curriculum handbook*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Schell, J., & Black, R. (1997). Situated learning: An inductive case study of a collaborative learning experience. *Journal of Industrial Teacher Education*, 34(4), 8-28.
- Sears, S. J., & Hersh, S. (1998). An overview of the project. In *Contextual Teaching and Learning: Preparing Teachers to Enhance Student Success in the Workplace and Beyond*, pp. 1-16). Columbus, OH: ERIC Clearinghouse for Teaching and Teacher Education. (ERIC Document Reproduction No. ED427 263)
- Smith, B. P. (2003). *Implementing contextual teaching and learning: Case study of Cindy, a high school family and consumer sciences novice teacher*. Retrieved from <http://www.coe.edu/ctl/casestudy/BSmith.pdf>
- Smith, B. P., Jones, K. H., & Hall, H. C. (2003). Family and consumer sciences teachers' preparedness to teach pregnant and parenting teens. *Journal of Family and Consumer Sciences Education*, 21(2), 18-25.
- Stevens, R. J., & Slavin, R. E. (1995). The cooperative elementary school: Effects on students' achievement, attitudes, and social relations. *American Educational Research Journal*, 32, 321-351.
- United States Department of Education Office of Vocational and Adult Education. (2005). *Contextual teaching and learning*. Retrieved from <http://www.usda.gov>
- Veenman, S., Kenter, B., & Post, K. (2000). Cooperative learning in Dutch primary classrooms. *Educational Studies*, 26(3), 281-303.

About the Authors

Ifraj Shamsid-Deen is a middle school family and consumer sciences teachers in Dekalb county,

Georgia; Bettye P. Smith, PhD, is an Associate Professor at the University of Georgia in the Department of Workforce Education, Leadership, and Social Foundations.