

## **Consumer Economics and Family Resources: Internet Delivery of Consumer Economics and Family Resource Management Courses**

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*The majority of Americans lack the skills to manage their finances as evidenced by a national negative savings rate, a trillion dollar consumer debt, and increasing numbers of people filing for bankruptcy. The mission of family and consumer sciences is to provide for the well-being of individuals and families. Family and consumer sciences teachers facilitate the development of financial literacy: the ability to read, analyze, manage, and communicate about financial conditions that affect family well being. A severe shortage of conventionally prepared family and consumer sciences teachers is the impetus to provide alternative teacher certification routes. Frequently individuals seeking their teaching credentials via the alternate routes require additional university coursework to become highly qualified teachers. Courses in consumer economics and family resource management lend themselves well to online delivery. These courses delivered via the Internet result in comparable student achievement and little additional cost compared to face-to-face classes. This article addresses alternative delivery of coursework to meet Standard 2 of the National Standards for Teachers of Family and Consumer Sciences: *Consumer Economics and Family Resources*.*

The National Association of Teacher Educators for Family and Consumer Sciences (NATEFACS) provided leadership for the development of standards to describe what beginning family and consumer sciences teachers should know and be able to do. Four of the 10 standards identify family and consumer sciences content knowledge, skills, and attitudes to facilitate student learning and the remaining six standards address professional practice.

The focus of this article is the Internet delivery of college courses that develop the financial literacy knowledge, skills, and attitudes a beginning family and consumer sciences teacher needs to acquire to meet Standard 2: Consumer Economics and Family Resources. As stated in this Standard, a family and consumer sciences teacher should: “Use resources responsibly to address the diverse needs and goals of individuals, families, and communities in family and consumer sciences areas such as resource management, consumer economics, financial literacy, living environments, and textiles and apparel” (NATEFACS, 2004).

### **Background and Rationale for the Standard**

*A Treatise on Domestic Economy*, written by Harriet Beecher in 1884 (as cited in Jerpbak, 2005), was one of the original textbooks of the family and consumer sciences profession. In this text, Beecher proposed that education in “domestic economy” would help individuals overcome the poor living conditions of the times. Teaching household resource management continues to be central in the profession. The American Association of Family and Consumer Sciences (AAFCS, 2004) adopted the following mission statement during the 2006 annual meeting:

The mission of the American Association of Family and Consumer Sciences (AAFCS) is to provide leadership and support to professionals whose work is to assist individuals, families, and communities in making informed decisions about their well being, relationships, and resources to optimize their quality of life. (n. p.)

Today many people use the Internet to locate information. The largest multilingual free-content encyclopedia on the Internet is Wikipedia, consulted by many individuals seeking to acquire information about a topic or concept. On Wikipedia, these seekers will find multiple entries describing family and consumer sciences. For example:

1. "Family and consumer science is the academic discipline which combines aspects of consumer science, nutrition, cooking, parenting, and human development, interior decoration, textiles, family economics, housing, apparel design, and resource management as well as other related subjects" (Wikipedia, 2006, n. p.).
2. "...is the study of providing for the well-being of individuals and households in the context of how they are influenced by marketplace institutions and communities, drawing from fields such as economics, household finance, and consumer protection" (Wikipedia, n. p.).
3. "Family and consumer science, or home economics, is an academic discipline which combines aspects of consumer science...family economics and resource management as well as other related subjects" (Wikipedia, n. p.).

This widely used Internet resource articulates that family and consumer sciences does provide the information and instruction Americans need to manage their personal and household resources for the development of healthy families and productive individuals. The mission statement and the Wikipedia definitions indicate that family and consumer sciences provides professional leadership to develop the knowledge and skills, which facilitate management of personal finances and family resources.

### ***Need for Consumer Economics and Family Resource Management Education***

The National Endowment for Financial Education (NEFE, 2006) indicates the average student who graduates from high school today lacks the basic knowledge and skills to be able to manage their personal financial affairs. They have no insight into the basic survival skills of earning, spending, saving, and investing (NEFE). The Jump\$tart Coalition is a non-profit organization, with more than 170 national partners and 44 affiliated states, which seeks to improve the personal financial literacy of students in kindergarten through college (Jump\$tart Coalition, 1997). It is mentioned prominently each year in Congressional resolutions proclaiming April as "Financial Literacy for Youth" Month. The Jump\$tart Coalition's direct objective is to ensure that basic personal financial management skills are attained during the K-12 educational experience.

A biennial survey of financial literacy sponsored by the Jump\$tart Coalition measures the personal financial knowledge level of a representative sample of high school students. "In the current [2005-06] survey, white students scored an average of 55 percent while African Americans scored significantly lower at 44.7 percent and Hispanics, 46.8 percent" (Jump\$tart Coalition, 2006, p. 2). Lewis Mandell, Ph.D., is a professor of finance and managerial economics at the State University of New York at Buffalo School of Management. He conducts the biennial Jump\$tart financial literacy survey of high school students and reported that "... despite the attention now paid to the lack of financial literacy, the problem is not about to resolve itself any time soon" (Jump\$tart Coalition, p. 2).

### ***Marginalized Population Subgroups***

In education and population demographics, Texas and California are the first states to exhibit trends, which become evident later in other states. According to Zhu-Sams and Hayes (2004), in Texas the proportion of Hispanic elementary and secondary school students is predicted to be more than 66% by 2040, the African American population will be more than 8%, and the Anglo population will be less than 19% by 2040. The proportion of non-white students is also increasing in other states (Clotfelter, Ladd, & Vigdor, 2005). As classroom populations include more non-white students, the need for financial literacy education multiplies. The Jump\$tart survey results also indicate that students from the highest income families, those having incomes of more than \$80,000 per year, have widened their margin of greater financial understanding over the next highest group, those families with incomes from \$40,000 to \$80,000 annually (Jump\$tart, 2006). Not only is there a knowledge gap among ethnic groups in the United States, there is also a knowledge gap between income groups.

These statistics, indicating the lack of financial literacy, are alarming to local and national government agencies because they indicate a majority of households and individuals are not successfully managing their financial resources. Alan Greenspan, the former chairman of the Federal Reserve from 1988 until his retirement in 2006, said, “No matter who you are, making informed decisions about what to do with your money will help build a more stable financial future for you and your family” (Greenspan, 2002, p. 1).

The information about the financial health of the U. S. population is discouraging. In 2006 the national savings rate was a negative 0.5%, the lowest since the Great Depression (Bureau of Economic Analysis, 2006), and the national consumer debt was over \$2 trillion (Federal Reserve, 2006). The number of bankruptcy filings increased even though a new law was in place that was supposed to make it more difficult to file for bankruptcy (Administrative Office of the United States Courts, 2005). There was also concern that the average retirement savings of less than \$50,000 would not be sufficient (DeVaney & Chiremba, 2005). More than ever individuals need education in consumer economics and family resource management to navigate the complexity of today’s financial environment. Enrollment in family and consumer sciences secondary education programs is one sure way to teach these basic and vital survival skills to high school students.

### ***Increased Personal Financial Responsibilities***

Our national financial system has become increasingly complex, placing more responsibility on individuals to manage their own finances. As America experiences a shrinking middle class, the gap between the “have’s” and the “have not’s” expands. Petroleum companies raised prices monumentally in answer to stockholder’s demands for increased profits, and the comfortable incomes generated from manufacturing and technology jobs have moved off shore. Managerial level employees no longer have job security as companies merge and down size. The specter of increasing energy costs, rising health care costs, a shrinking pool of workers to support retirees’ Social Security payments, and the elimination of corporate pensions by bankruptcy courts has many Americans’ gravely concerned about their financial futures.

Individuals today are experiencing a different kind of economy, where the labor market is less stable and millions of employees are labeled the "working poor." This creates an economic education challenge. More than ever, we need to help individuals and families become financially literate: to have the ability to read, analyze, manage, and communicate about personal

financial conditions that affect their material well-being. Financial literacy includes “the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future and respond competently to life’s changes that affect everyday financial decisions including events in the general economy” (Vitt, Reichbach, Kent, & Siegenthaler, 2005, p. 9). According to the National Endowment for Financial Education (NEFE, 2000), many Americans, especially those at the lower income levels, have very limited financial literacy knowledge and skills. It is the children of disadvantaged and low-income families who are disproportionately enrolled in career and technical education programs (Association of Career and Technical Education [ACTE], 2007; Goldfarb, Olabisi, & Lawrence, 2006), and who most likely will not learn to manage their financial resources unless they are taught to do so by their family and consumer sciences teacher.

### **Strategies for Implementation and Assessment of the Standard**

The family and consumer sciences teacher candidates who complete the traditional on-campus family and consumer sciences education degree take face-to-face courses with the appropriate financial literacy content as requirements for their college major and degree. Such courses include *The Family as Consumers* and *Family Resource Management* at East Carolina University, *Resource Management* and *Family Financial Management* at Virginia Tech, and *Consumer Economic Issues* and *Personal and Family Finance and Management* at the University of Idaho. In these face-to-face courses, the teacher candidates have opportunities to acquire the knowledge, skills, and dispositions for teaching this content to others. In today’s face-to-face classes, instruction may follow the didactic, information delivery model, or may include a combination of didactic instruction and problem-based scenarios involving students in the application of content principles to real-life scenarios.

Another option for today’s college students is the mixed model for delivery of instruction in which online meetings replace a significant portion of the face-to-face instruction, utilizing electronic delivery tools. In both methods of content delivery, teacher candidates demonstrate acquisition of the knowledge and skills to teach family resource management and consumer economics by paper and pencil tests of content knowledge and by creation of performance-based assessments. Teacher candidates must also successfully complete a student teaching/internship before receiving endorsement for certification from their college or university.

### ***Meeting the Demand for Family and Consumer Sciences Teachers***

Shortages of fully certified teachers have led some states to approve alternative means to become a highly qualified teacher (U. S. Department of Education, 2004). In some states (e.g., Idaho, Texas, North Carolina, California) these alternative pathways permit individuals with a college degree to become certified as teachers by meeting specified education requirements during their initial years of employment as a teacher. Rarely are these individuals able to attend the additional face-to-face college classes they need while they are working full-time as teachers.

Throughout history, students have come to the university for their education and institutions had residency requirements forcing students to be on the campus. Today access to higher education has radically changed with Internet delivery. Courses available via the Internet enable time- and place-bound individuals to complete the college classes they need to become certified teachers. With an Internet connection and computer, college coursework is accessible anytime and anywhere.

In the states that provide for alternative access to teacher certification, individuals who did not complete the traditional teacher preparation program can become certified teachers. Lateral entry is a term used in North Carolina to describe the process by which individuals with a related undergraduate degree, such as Child Development, Retail Merchandising, or Hospitality Management, can begin teaching secondary family and consumer sciences courses while completing the education and employment requirements for teacher certification. This form of on-the-job training and coursework, completed while under the supervision of an administrator or mentor teacher, leads to full certification as a family and consumer sciences teacher. Individuals who are teaching full time at a distance from a college campus are the individuals who most need the online delivery of courses. In North Carolina the majority, estimated by the state family and consumer sciences education specialists to be 90%, of newly hired family and consumer sciences teachers attending the Summer Career and Technical Education Conference are individuals seeking certification via the lateral entry/alternative route process.

For many universities with small family and consumer sciences teacher preparation programs, there is an availability gap for consumer economics and family resource management courses, since enrollment may not be sufficient to offer the course every semester or even every year. Generally, there are limited numbers of faculty who are prepared to teach such a course. The Great Plains Interactive Distance Education Alliance (2007) has compiled information about family and consumer sciences online courses. Included on their Web site are online courses in consumer economics and family resource management.

Many universities (e.g., Grand Canyon University, University of Phoenix, Kaplan University, Ashford University, Drexel University) offer education degrees online. Some universities sponsor mostly online programs leading to a master's degree in Family and Consumer Sciences Education (Iowa State University, 2006). A search of the Learning and Life U.S. News Web site indicated there were more than 1,000 online graduate degree programs available at that time (U.S. News & World Report Online, 2006). In fact, today, 90% of four-year public institutions and more than 50% of four-year private institutions offer online education, while approximately 25% of K–12 public schools offer e-learning, according to the United States Department of Education as reported by Baker (2007). The Pew Internet and American Life Project reported that 88% of 18 to 29 year olds use the Internet, so concerns about technology proficiency are less of an issue today than a few years ago (Pew, 2006). Previously reported gender differences in rates of computer or Internet use no longer exist (DeBell & Chapman, 2003).

### **Effectiveness of Internet Delivered University Courses**

Education faculty from Texas State University compared the teaching of instructional planning skills to education students in face-to-face and online course sections using a quasi-experimental design. “Both groups made significant gains in learning to plan technology-supported, problem-based learning and a willingness to implement innovative instruction. Post assessment results showed no significant difference between groups” (Peterson & Bond, 2004, p. 345). Researchers from Harvard University reviewed alternative certification outcomes and report students in online courses received at least equal if not higher scores than students in face-to-face delivered courses (Johnson, Aragon, Shaik, & Palma-Rivas, 2000; Johnson, Birkeland, & Peske, 2005).

When full-time faculty members teach online courses they are more expensive to deliver, because of the higher personnel costs, than when they are taught by part-time adjunct faculty, but

are also considered to be of higher quality (Milam, 2000). Thompson (2002) reported an Effective Distance Education (EDE) model. “The number and variety of teaching/learning strategies were positively correlated with the experience level of the instructor. The experienced teacher used 40 of 46 strategies. The less experienced instructor used 27, and the novice instructor used six” (Thompson, p. 21). In the virtual classroom “the teaching/learning strategies used by the experienced instructor were rated significantly higher than those used by the less experience instructor” (Thompson, p. 21).

Advanced physician training courses involving manipulation of instruments with patients in Intensive Care situations were taught face-to-face and online. Both courses used the same graphics and text but substituted video, rather than live demonstrations of procedures, for the online instruction. Students self selected into either the face-to-face or online sections. Baseline data from each group included performance of practical skills and a written test. Final test results, including the practical aspects of the training, showed a slightly greater, but not statistically significant difference for the online students. Overall, the learner satisfaction rating by online students was significantly higher than that of the traditional classroom students, a finding consistent with results from other researchers comparing the two methods. (Aragon, Johnson, & Shaik, 2002; Bello, et al., 2005; Neuhauser, 2002).

A number of studies looked at whether students who select online learning differ in ways that affect their academic performance. Katz and Yablon (2003) reported that students who participate in online courses become more favorable to learning via technology. Online students seem to value convenience and flexibility more than face-to-face interaction with instructor and peers (Roblyer, 1999). Abbott (2006) reported that the “smart classroom” is essential to 21st century school reform and education improvement. Smart classrooms are those facilities that have internet access and PowerPoint capabilities as well as other technology available on college campuses. “College students [in face-to-face classes] who have grown up in the high technology environment frequently request that their professors prepare their lecture notes using PowerPoint, have a course Web site, and use multimedia to illustrate key themes” (Debevec, Shih, & Kashyap, 2006, p. 293).

### ***Time Commitments and Online Teaching***

Cavanaugh (2005) indicated faculty in various departments across campuses express the opinion that teaching online takes considerably more time than traditional face-to-face instruction. There is little recent data from family and consumer sciences teacher educators to support or disprove this belief. The number of students in the online class is a predictor of faculty time commitment, according to Cavanaugh since faculty-student interaction via e-mail requires considerable time.

Hislop and Ellis (2004) secured records of instructor time for seven comparable pairs of online and traditional course sections. They reported the total time expended by instructors was approximately 5 minutes more per online student when compared with the traditional sections, a difference that was not statistically significant. Due to the nature of online technology and faculty experience with distance education technology, faculty may perceive an increased effort involved in teaching an online course because online courses require an increased level of interactivity on the part of the instructor (Hislop & Ellis). Faculty also need to rearrange their schedules so that students’ expectations of immediate responses for answers to questions and requests for interaction are met. “The amount of work on the weekend by faculty was the same for online and traditional sections, averaging 1.4 hours per student per section during an 11 week

quarter” (Hislop & Ellis, p. 28). Faculty can limit the amount of weekend time they must spend with online students by establishing a mid-week assignment deadline when they are at work and available to students when most questions arise (Young, 2002).

### ***Delivery Costs for Online Courses***

Milam (2000) performed a complex hybrid method of cost analysis of online courses for the Andrew H. Mellon Foundation. Analysis factors included student/course enrollment, departmental consumption/contributions, space utilization/opportunity costs, direct non-personal costs, computing support, faculty/staff workload, and administrative costs and revenue streams. The study involved four pairs of courses: English, management information systems, decision sciences, and astronomy. The study found that total expenditures for traditional and online courses were relatively the same, but net costs per section were higher for online courses. In addition, departments with multiple course sections benefited by offering online courses. An understanding of how to manage technology costs effectively was a positive byproduct for the faculty who were involved in the study.

### ***Effectiveness of Online Family and Consumer Sciences Instruction***

A few research studies are available which consider the effectiveness of online family and consumer sciences teacher education and preparation outcomes. Johnson, Burnett, and Rollings (2002) reported a comparison of internet and traditional classroom instruction for a consumer economics course. They reported the online group had a significantly higher achievement level on the pretest and post-test than did the face-to-face group. A family and consumer sciences education faculty member at the University of Idaho who teaches both face-to-face and on-line sections of the Consumer Economics and Personal and Family Finance courses reports “their [online students] grades tend to be higher and they tend to do better [work on assignments] than on-campus students. They certainly do more comprehensive work on the assignments when they post them online for their classmates to see and react to (which is) something I don't do with my on-campus students” (V. Junk, personal communication, May 8, 2006). Other family and consumer sciences faculty teaching online courses have indicated similar outcomes. Johnson et al. indicated that their online students reported spending 6 to 10 hours per work week working on the course while the face-to-face classroom students reported working 5 hours or less per week on the course. Online students also averaged a significantly longer workweek than did the traditional students (Johnson et al.)

### ***Online resources for family and consumer sciences teachers***

There is a wealth of material online to facilitate teaching financial literacy. These sites can be especially helpful to teachers who are completing their family and consumer sciences teacher certification coursework. Montana State University, in cooperation with the Take Charge America non-profit financial counseling and debt management service, operated the Family Financial Literacy project and provided an annual Family Economics and Financial Education Conference (FEFE, 2006) to help teachers implement their curricular materials. The FEFE program recently moved to the University of Arizona.

The National Endowment for Financial Education (NEFE) also provides multimedia delivery of personal financial literacy and self-help education materials for the public, as well as a curriculum to guide instruction in the secondary classroom. NEFE has a six unit High School Financial Planning Program (HSFPP) curriculum available online with portals for teachers,

students, and sponsors. An 18-month evaluation of the HSFPP indicates that students who used the program made significant gains in their financial knowledge, behavior, and confidence after completing the program. This evaluation used responses from 202 teachers and 5,329 high school students (NEFE, 2006).

### **Conclusions**

“As adults are faced with the necessity of continuing education throughout their lives, the need for convenient distance education programs is intensified” (Howland & Moore, 2002, p. 183). With unrelenting demand for family and consumer sciences teachers, and lateral entry/alternative routes to teacher certification, the need for distance delivered courses is urgent. The need for family and consumer sciences teachers and for lifelong education opportunities behoove family and consumer sciences programs to develop and offer an increasing number of the required teacher preparation courses online. Research indicates that medical students are able to learn complex and technical information and skills online. Johnson et al.(2002) found their online students did significantly better than did the face-to-face students in their consumer economics courses. The advent of digital photography, live web cams, and technologically proficient faculty and students make this alternative delivery of courses a viable option for the development of the dispositions, knowledge, and skills that beginning family and consumer sciences teacher candidates need.

Costs of instruction and time commitment of faculty become moot issues as faculty develop increased competency with the tools of the virtual classroom. Access to appropriate courses delivered in an any-time, any-where format are critical to strong and vital secondary family and consumer sciences programs because enrollments in traditional teacher preparation programs are stagnant and the demand for certified family and consumer sciences teachers continues to be strong in the majority of states.

### **Brief Annotated List of Print Resources**

Conrad, R-M., & Donaldson, J. A. (2004). *Engaging the online learner: Activities and resources for creative instruction*. San Francisco: Jossey-Bass.

This book, written for higher education faculty, consists of two parts. Part One provides a basic framework with which to organize activities. This framework serves to engage student into the online environment. Part Two presents activities to promote engagement among online learners on a phase-by-phase basis.

Goldsmith, E. B. (2005). *Personal finance*. Belmont, CA: Wadsworth/Thompson Learning.

This paper-bound college text provides strategies from the basics of using credit cards to the ins and outs of investing in the stock market. It is unique in the Personal Finance textbook field in that it includes an entire chapter devoted to the intangible costs and sacrifices involved in caring for others.

Goldsmith, E. B. (2005). *Resource management for individuals and families* (3rd ed.). Belmont, CA: Wadsworth/Thompson Learning.

This is a college level textbook designed to introduce students to the best of management thinking and practice. Part I begins with an explanation of management and the process of using resources to achieve goals. Part II examines the basic concepts underlying the

field of management. Part III provides specific application to time, work, family, stress, fatigue, environmental resources, and finances in a “how-to” section.

Kopoor, J. R., Dlabay, L. R., & Hughes, R. J. (2006). *Focus on personal finance*. Boston: McGraw Hill/Irwin.

This college level textbook introduces students to a management process model first used to address three questions: What is management? Why manage? Who manages? It continues with a focus on the home and environment as a context within which individuals and families manage, apart from the other areas in social science. It includes an examination of the basic concepts underlying the field of management, and then provides applications for time, work, family, stress and fatigue, environmental resources, and finances. It concludes with an analysis of technology, quality of life and family, and global change.

Vitt, L., Reichbach, G., Kent, J., & Siegenthaler, J. (2005). *Personal finance and the rush to competence: Financial literacy in the U.S.* Middleburg, VA: Institute for Socio-Financial Studies. Retrieved May 9, 2006, from [http://www.aarp.org/special\\_static/usukpensionsdialogue/conf\\_papers/remarks/05\\_LVittpt.pdf](http://www.aarp.org/special_static/usukpensionsdialogue/conf_papers/remarks/05_LVittpt.pdf)

This national field study was commissioned and supported by the Fannie Mae Foundation, Institute for Socio-Financial Studies, Middleburg, VA.

Wehlage, N. (1997). *Goals for living: Managing your resources*, Tinley Park, IL: Goodheart-Willcox.

This is a secondary level text useful for teaching life management concepts in the secondary school.

### **Brief Annotated List of Electronic Resources**

#### Take Charge America

Web Link: <http://www.takechargeamerica.org/>

Take Charge America is a non-profit financial counseling and debt management service. It sponsors a personal finance case study competition among college teams annually. Following an introduction, the teams have 36 hours to analyze the case and prepare a verbal, written, and PowerPoint presentation for a panel of judges who determine the winner. Cash prizes are awarded to the students' university departments.

#### Family Finance and Economic Education (FEFE)

Web Link: <http://www.familyfinance.montana.edu/>

FEFE's mission is to provide educators with complimentary curriculum materials and the skills and confidence to effectively teach family economics and finance. Educators participate in a free weeklong Master Teacher Program to facilitate using the curriculum materials in the secondary classroom.

#### National Endowment for Financial Education (NEFE)

Web Link: <http://www.nefe.org/>

NEFE is a non-profit foundation dedicated to helping all Americans acquire the information and gain the skills necessary to take control of their personal finances by providing funding, as well as the logistical support and financial planning expertise

needed to create personal finance programs and materials for the public. They maintain two Web sites for this purpose.

#### Get Smart About Your Money

Web Link: <http://www.smartaboutmoney.org/nefe/pages/home.asp>

This NEFE sponsored Web site has the general public as the target audience. The Web site includes links for financial planning, managing credit and debt, saving, investing, and retirement.

#### Youth Helping Youth

Web Link: <http://www.ntrbonline.org/english/index.html>

This is a Web site targeted to teens using the NEFE High School Financial Planning Program to provide them with a greater understanding of and ability to manage their personal finances in the areas of goal setting, budgeting, and saving. The program uses unique games, simulations, case studies, and interactive exercises to provide hands-on experience for students to test and apply the financial principles and concepts taught.

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