

**FINANCIAL LITERACY TRAINING
IN AN ACADEMIC TRADING ROOM:
EXPANDING PRACTICAL EDUCATION
IN FINANCE**

Kristin Bristol

*Associate Director, Center of Financial Studies
Southern New Hampshire University*

David Fehr*

*Director, Center for Financial Studies
Assistant Professor of Finance
Southern New Hampshire University*

R. Larry Johnson

*Professor of Finance
Southern New Hampshire University*

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* Please direct all inquiries and correspondence to David Fehr at d.fehr@snhu.edu or 603-644-3197. We would like to thank the School of Business, Southern New Hampshire University for support. We take credit for all errors that remain. Working Papers are a series of manuscripts in their draft form, and reflect the view of the author(s), not Southern New Hampshire University or the Center for Financial Studies.

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ABSTRACT

A nationwide awareness of the need to raise students' financial literacy levels has surfaced recently as a result of a number of studies throughout the United States focusing on financial literacy. The need to examine this issue in more detail is evidenced by the widespread lack of parental personal finance instruction, limited personal finance instruction in both primary and secondary schools and the overall difficulty experienced by many individuals in grasping and applying the basic concepts of personal finance (Mandell, 1998, 2001; American Institutes for Research, National Council on Economic Education, and Council of Chief State School Officers, 2002; Carvahal, 2002). The purpose of this paper is to provide an overview of the development and implementation of a financial literacy program at Southern New Hampshire University (SNHU) including: (1) A brief overview of the literature in financial literacy; (2) The pedagogical opportunities made available to both SNHU and the community by the development of the "Center for Financial Studies" and its high technology trading room; (3) A brief outline of the SNHU mission and how financial literacy is integrated; and (4) The development and administration of financial literacy curriculum modules as a part of the Freshman Experience Course (FEX) at SNHU. Both the challenges and results are explored in this paper.

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I. INTRODUCTION

At an April 6, 2001, conference on community development, Alan Greenspan, chairman of the Federal Reserve Bank, commented that, “improving basic financial education at the elementary and secondary school levels is essential to providing a foundation for financial literacy that can help prevent younger people from making poor financial decisions that take years to overcome.” Many problems still remain. For example, the American Savings Education Council (ASEC, 1999) found that many 16-23-year-olds overestimate their personal financial acumen. In other studies conducted at the high school level by Mandell (1998, 2001) and at the state level in a 50-state survey by the National Council on Economic Education, both indicate poor and declining personal financial literacy as well as a general lack of personal financial standards at the state level

The Center for Financial Studies (CFS) at SNHU has adopted as its mission the establishment and maintenance of a financial core competency throughout the University’s programs and a policy of extension of benefits regarding the use of the facility and assets to the community at large. See Appendix I for the CFS mission statement. To help execute this mission, SNHU has recently opened its Center (CFS), containing 36 trading stations and a wide range of electronic equipment, audiovisual equipment and sophisticated computer software and data systems. Appendix II provides a more detailed description of the Center. This paper does not explicitly address the physical build-out of the CFS but, instead, addresses the CFS mission within the financial literacy program at SNHU. See Alexander, Heck & McElreath (2001) for a discussion of issues and challenges in building such a facility. Prior to opening the CFS, the University undertook activities to develop specialized curriculum to use in conjunction with the CFS. Since the room has opened, it has hosted various educational and academic programs, both for the University community and for local/regional non-University affiliated groups. This paper will document the policy, academic, logistical and operating aspects of each element of the CFS enterprise and the SNHU mission.

Section II provides a brief overview of recent financial literacy training literature. This literature documents the difficulty experienced by individuals in grasping and applying basic concepts in personal finance, as well as the limited opportunities for students to study these materials in our public schools. Section III describes curriculum development activities at SNHU to promote financial literacy using the CFS. Section IV discusses our efforts in community outreach. Finally, Section V summarizes our results to-date and ongoing issues.

II. LITERATURE REVIEW

The need for improvement in financial literacy among American youth and adults has been documented in several studies. A 2000 Personal Financial Survey of 723 12th graders conducted by Jump\$tart Coalition found that the average participant correctly answered 51.9 percent of questions that addressed income, money management, savings and investing, spending, and credit. This represents a decline from an average score of 57.3 percent in a similar survey conducted in 1997. (Mandell, 1998, 2001) Both surveys found that students scored highest on income-related questions, with average scores of 57.6% in 2000 and 71.9% in 1997, and lowest on savings and investing questions, with average scores of 45.3% in 2000 and 47.4% in 1997. Decreases in average scores for money management and spending were also found from 1997 to 2000. The 2000 survey found that students with higher education aspirations and higher anticipated future income scored higher than students who did not intend to continue onto higher education and who anticipated lower future incomes. This is particularly worrisome if one considers that a lower wage-earner may need to be more diligent in money management issues and will benefit from financial training that may be made available at the collegiate level.

A 1997 survey conducted by Princeton Survey Research Associates on behalf of The Consumer Federation of America and NationsBank found similarly dismal results among adult Americans with an average score of just 42%, and only eight percent of participants able to score 75% or higher. Lack of financial acumen has manifested itself in the doubling of personal bankruptcy filings between 1990 and 2000, and the admission by four of ten Americans that they live beyond their means primarily due to misuse and misunderstanding of credit (US Department of Treasury, Office of Financial Education, 2002).

The Jump\$tart Coalition 2000 survey found no significant difference in scores between young men and women. It found that while white students scored on average slightly higher than did minority students and students from families with higher annual incomes scored on average slightly higher than did students of families with lower annual incomes, no racial or income group had a majority of students passing the exam, indicating a national problem rather than one of race or income.

The apparent deficit in financial literacy among Americans would not seem to be due to a lack of teaching materials and curriculum. Numerous sources are available from diverse sources including non-profit organizations, banking and brokerage firms, the federal government and from many teachers who have developed their own curriculum. Topics addressed include basic financial planning, cash management, savings, banking, credit, investing, taxes, and insurance. A selected listing of sources for teaching materials and curriculum resources is provided in Appendix III.

Financial literacy training has been shown to be effective for teenagers as well as adults. In a 1997-1998 study, Boyce and Danes surveyed money management behavior, financial knowledge, and confidence in dealing with money among over 4000 students in 188 high schools nationwide. They repeated the survey after students had completed National Endowment for Financial Education's (NEFE's) High School Financial Planning Program (HSFPP) and again three months after students completed the HSFPP curriculum. Eighty-six percent of the students reported increased knowledge and/or positive changes in financial behavior and 42% reported an increase in confidence regarding money matters immediately following completion of HSFPP. Three months later, more than half of the students reported improved spending and savings habits and 39% reported having started a savings account. This is particularly significant since those who learn to save as teenagers have been shown to save more as adults (Bernheim, Garrett, and Maki, 1997).

A 2002 Consumer Bankers Association survey of bank-sponsored financial literacy programs found such programs generally focus on increasing home-ownership, combating predatory lending practices, and meeting the needs of the unbanked. Results of most programs are measured in terms of increased bank business and/or number of participants who complete a program. However, programs aimed at increasing home-ownership, particularly among low- to moderate-income individuals, have shown not only increased home-ownership but also lower default rates among these customers.

The 2000 Jump\$Start Coalition survey found no statistical difference in survey scores among students who had completed a partial or entire course in economics, money management, or personal finance. However, it did find that students who had participated in the Stock Market Game scored better than average, albeit still not a passing grade at 55.1 %. The Stock Market Game is an interactive internet-based investment competition in which participants manage a virtual investment portfolio. Increased retention of lessons learned through the Stock Market Game are not surprising in light of recent research on the effectiveness of different modes of delivery of instructional material.

It has been shown that a deeper understanding of material is gained by learners in the process of building connections between visual and verbal presentations of instructional material than is gained by a presentation of the same material that is solely visual or verbal. Historically the predominant format for presenting instructional material has been verbal or written words. However, recent advances in computer technology allow for great advances in visual methods for instructing. Mayer (2001) has demonstrated that students experience a greater rate of retention of instructional material when it is experienced through animation (visually) simultaneously with narration than when presented with animation and text. The ability to transfer the knowledge, i.e., to apply the knowledge in novel ways, was even more enhanced by the combination of animation and narrative presentation. Mayer also found that a high level of

cognitive activity was necessary in order for an instructional experience to result in meaningful learning, i.e., an ability to use the acquired knowledge in novel ways to problem-solve. The student must be actively engaged in the learning, not a passive observer. Active engagement need not be behavioral; it may be mental.

Mayer did find that the combination of animation, narration, and text actually decreased retention and the ability to transfer the knowledge gained from the instructional material. One theory to explain this phenomenon is that the student experiences visual sensory overload as a result of seeing the animation and the text in front of him. Sensory overload, as well as a sense of being overwhelmed, are possible in a simulated trading room.

In describing the benefits of a hypermedia classroom, Spoehr (1996) lists the ability to actively engage students in the acquisition and use of information, the ability to support varying learning styles, and the ability to support multiple instructional uses such as tutoring and research. However, she also warns that users can get lost or overwhelmed by the volume of information that becomes available in a wired classroom. The student may fail to get an overview of how all the pieces fit together or miss entire sections of information. Without guidance in goal formulation or finding relevant material, the student may stumble around in an instructionally inefficient manner.

Multimedia, and the internet specifically, has been successfully used in many schools. Indeed, Kalman (1996) reports that “Many students and some teachers are fascinated by the technology itself. These are the core of use and tutelage at New Vista” High School in Boulder, CO. Rose (1996) explains that use of the internet makes the technology a “doing” technology that actively engages students, providing the opportunity to turn information into knowledge. A financial example of use of the internet for instructional purposes is the Taking Stock program, a virtual investing program for fifth and sixth graders, originated at Happy Valley School in Santa Cruz, CA. Taking Stock incorporates activities involving converting fractions and decimals into currency, researching corporations, writing and sharing persuasive letters, and understanding stock symbols (Post, 1996). Programs such as Taking Stock succeed in incorporating finance into math and language arts lessons as recommended by the US Treasury’s Office of Financial Education in their report on Integrating Financial Education into School Curriculum: Giving America’s Youth the Educational Foundation for Making Effective Financial Decisions Throughout Their Lives by Teaching Financial Concepts as Part of Math and Reading Curricula in Elementary, Middle, and High Schools (2002). Such a strategy is important as schools are pressured to teach to assessments that emphasize math and language skills.

III. CURRICULUM DEVELOPMENT

The primary purpose of this section is to discuss the pedagogical opportunities made available by a high technology academic trading room.

Issues and objectives. Curriculum development provided the impetus for the entire CFS project. In late 2000, SNHU received a restricted grant for curriculum development specifically for financial literacy training across the entire University. At that point, development began simultaneously in two directions:

- The physical construction of the Center; and
- Targeted curriculum development.

In conversations with center directors at other academic trading rooms, we have learned that our two-pronged approach was non-standard. In most other cases, it appears that the physical build-out took place prior to serious efforts in curriculum development. That scenario has the advantage that faculty curriculum developers would know exactly what assets will be available to work with. They would know the technical specification of the room as well as the proprietary software and data that would be available. Also, a functioning state-of-the-art enter could be a considerable motivating force to generate faculty interest and enthusiasm.

In our case, we offered faculty small honoraria to develop curriculum. Because the exact specifications of the CFS were not yet available, we asked faculty to proceed in a two-stage development process.

For the first phase, faculty were to develop an internet-only version of the teaching materials. The idea was that, regardless of the final specifications for the Center, it would clearly be internet-ready. As such, beta versions of course materials could be ready for testing as soon as the room was built. During the second phase, developers would identify the necessary specialized data and software needed to enhance the curriculum. To date, we have developed four (4) phase I packages for existing courses and six (6) phase I financial modules for our specialized freshman course, FEX.

On net, our approach has worked well. We learned that it was less intimidating for faculty to develop materials in this phased approach. Our sense is that it would have been difficult for faculty to deal with the newness of the room and specialized software and data simultaneously. This issue is especially relevant here at SNHU, as we are asking faculties from the School of Liberal Arts and the School of Hospitality, as well as the School of Business, to work with the CFS. In fact, it has been gratifying to see faculty from the non-business disciplines come forward to participate.

Our freshman core course, The Freshman Experience (FEX), is designed to help students transition from high school to a residential university. Topics covered include study skills training, financial aid issues, an introduction to university services and facilities, and financial literacy. This course is a required course for all residential freshmen in all schools. The FEX sections are taught by faculty and senior staff. Twenty-three (23) FEX sections were offered during the fall, 2002. To integrate the CFS into FEX, finance faculty developed the six (6) personal financial literacy modules presented in Table I.

Each FEX module was designed for a 1 ¼ hour class session. To maintain maximum flexibility, each module is self-contained so that individual FEX instructors can “pick and choose” any combination of modules. Furthermore, Center staff offered to actually teach any module if the instructor was not comfortable with the material.

During the fall, 2002, term we have offered 11 financial literacy FEX classes reaching approximately 270 students. This initial level of participation is impressive, given that the build-out of our Center was completed only as the term began. We expect to continue with and bolster this FEX initiative as a primary strategy to satisfy our mandate to reach all student constituencies at the University.

Work on modification of existing courses is also proceeding. We are learning, as have virtually all other academic trading centers, that faculty can be slow to embrace the assets of the room. Experience at SNHU and elsewhere has shown that a small group of faculty will begin to explore ways to use the Center immediately. However, the vast majority need encouragement, training and assistance in exploiting the capabilities of such a special venue. Some have offered financial incentives. At SNHU, we are trying to generate excitement about the room with various special events: speakers, seminars, workshops, etc. In this way, faculty will experience the CFS in action and students will have the basis the request that classroom work take place in the Center.

Process. The six (6) personal financial literacy modules were designed around the following concepts: Overview of material; Educational motivation; Proposed outcomes and competencies; Website documentation; Lesson plan; and Relevant assignments and possible assigned readings. The “Overview of the material” centered on key terminology, general guidelines/issues to understand the material, advantages/disadvantages of alternative options, and statistics and other information to provide a basic understanding of the topic. The “Educational motivation” of each module was largely focused on financial literacy and life skills. The sub-motivation was to provide guidance in making future financial decisions. “Proposed outcomes and competencies” focused on both competencies and goals. For example, Module 1: Personal Goals and Objectives, had two competencies: (1) master and apply state of the art computer/information based principles and business applications; and (2) conduct analytical and creative

problem detection and problem solving. Each competency had a set of three goals. The section on “Website documentation” was created to provide students with practical up-to-date sources of information, as well as practical exercises in personal financial issues and planning. Each module had from five to ten (5-10) websites and all assignments were internet-focused. Lesson plans were complete with assignments (instructor solutions provided), and included a detailed breakdown of how a typical 75-minute class might be conducted (topics/assignments). Copies of two to five (2-5) relevant articles were provided as possible additions to the assignments or for background material to the instructor. The goals of the modules were (1) provide a broad array of financial literacy options for the FEX instructors; (2) present internet focused material to the student that would be interesting and develop personal finance life skills; and (3) develop a self contained easy to teach package that could be taught either in class or at the Center. As an illustration, the curriculum materials for Module 1: Personal Goals and Objectives are provided in Appendix IV.

IV. COMMUNITY RELATIONS

A key element of the SNHU CFS mission statement is to make the assets of the Center available to the wider community. Our primary initiative in this regard has been to affiliate ourselves with local/regional not-for-profit groups that are active in financial literacy training in the public schools, for example:

- National Council on Economic Education;
- New Hampshire Jump\$tart coalition;
- South Central New Hampshire School-to-Careers Partnership (an Academy of Finance program); and
- Junior Achievement of New Hampshire, Inc.

Our co-sponsorship with such groups has been wide ranging, including:

- Special events
 - “The Economics Challenge” with the National Council on Economic Education – economic literacy in a quiz show format
 - “The Titan Competition” with Junior Achievement of New Hampshire, Inc. – a business/market competition
- Field trips

- Elementary, middle and high school students visit our campus and the CFS – we offer campus tours, instruction with one of our FEX modules, etc.
- Teacher training workshops
 - We offer our FEX modules to teachers and encourage teachers to use our Center for their purposes.

Response from these groups has been very positive. The public schools do not have comparable facilities, so both students and teachers find visits to be very special events. It is also clear that these events present a wonderful opportunity to showcase our University to prospective students.

Similarly we have begun to work with corporate entities, initially financial services firms, to provide practical training opportunities for our students, staff and faculty. When we were first approached by a financial planner who hoped to use the CFS as a venue for information sessions for prospective clients, we were hesitant to allow the CFS to be used as a marketplace for financial planners and confirmed that other academic institutions do not make their similar facilities available for such sessions. A facilities usage policy was developed to guide decisions regarding use of the CFS by outside groups and is provided in Appendix V.

Another team of brokers approached us with a proposal for a series of informational sessions that did not market firm-specific products. The initial presentation described a typical day in the life of a retail financial consultant, followed by a Q&A period. The session was very well attended by students, SNHU faculty and staff. Other informational session topics that have been offered or are planned include Diversification in Investing, Investing for Beginners, and Mutual Funds. Topics for future sessions will depend on interests expressed by likely attendees.

Interestingly, we have encountered some suspicion on the parts of representatives of some financial literacy groups to which we have extended an offer of use of the CFS at no charge. This has taken two forms: questions regarding what SNHU will gain by extending free use of the facilities and concern about the possible intimidation of financial literacy workshop participants by the high technology of the facilities.

To answer the first question: SNHU has already benefited from grants to fund curriculum development, the proposals for which included extending use of the CFS to community schools and financial literacy groups. It is likely that the CFS will apply similar grants under similar conditions in the future. SNHU also gains exposure to prospective future students and to area businesses that may provide future financial support and/or employment for SNHU graduates.

To answer the intimidation question: While investment and other finance classes schedule time in the Center, the major thrust of the Center programs is financial literacy. Part of financial literacy is making financial matters less intimidating. We have done a diversification workshop for groups ranging in age from 10 to 60+. In all of our events, we take care to prepare participants for potential sensory overload. Users have tended to become comfortable with the setting very quickly.

V. IMPLEMENTING ISSUES & RESULTS

During our fall, 2002, academic term, the CFS registered approximately 650 participants in its various programs. Given that the build-out of the Center was only completed in September, 2002, Center staff was gratified with these numbers. Users consisted of undergraduates, graduate students, middle and high school groups, faculty and staff, and community seniors.

Our two phase ((I) internet-only; (II) incorporate proprietary data/software) appears to have been a productive approach. Contracted-for curriculum development was accomplished in full and on time. While we have not yet progressed to phase II, we have learned that this step can be more challenging. Recently, we have selected certain proprietary software that the CFS will acquire. We expect to observe some hesitancy on the part of faculty to invest the necessary time and effort to master these proprietary products. Center directors at other universities have reported this phenomenon. Solutions have included financial incentives, comprehensive tutorial sessions and a commitment to provide comprehensive developmental and technical support as faculty undertakes curriculum development using the new assets. We intend to pursue all of these avenues.

Our experience with the FEX course has been positive. We serviced a meaningful percentage of all FEX students. By far, the most interest was in our Module 4: Issues and Problems Involving Credit Cards. Interestingly, however, in each FEX session in the CFS, the teaching faculty member asked Center staff to lead the discussion and essentially teach the class. We are hopeful that instructors simply wanted to see the module taught once by those of us familiar with the curriculum materials and the high technology aspects of the room. We also suspect that the “intimidation” factor was in part, also present.

Our community-related activities during our fall term consisted of either public school student/teacher workshops or presentations by local financial executives. We logged several hundred participants in such programs. The various programs with the public schools were always a great success, to a large part carried by the impressive physical aspects of the Center relative to typical public school facilities. Educators quickly saw the potential for financial literacy training at

such a venue, and in virtually all cases have begun making arrangements for repeat visits. It certainly appears that public school activities will be an ongoing annuity for our Center.

Likewise, our outside speaker events have been well attended. In many cases, we have worked in conjunction with campus groups, e.g., economic/finance association, to co-sponsor the events. In all cases, our speakers have been well prepared to deliver productive talks. At least here in southern New Hampshire, community service obligations on the part of local and national firms appear to be strong.

An issue that we did not pursue at SNHU was whether to make use of the CFS mandatory in some or all academic programs. Certainly, the substantial resources committed and the impressive pedagogical/education opportunities argue for doing so. On the other hand, it is reasonable to expect that the best educational outcomes will obtain if users self-select affiliation with the Center. This will continue to be an ongoing debate as SNHU.

REFERENCES

- Alexander, J.C. Jr., Heck, C.C., and McElreath, R.B. (2001). A guide to building a university trading room. *Financial Services Review*, 10, 209-220.
- American Institutes for Research, National Council on Economic Education, and Council of Chief State School Officers. (2002). *Economics framework for 2006: National assessment of educational progress*. Draft for national review.
- Bernheim, B.D., Garrett, D.M., and Maki, D.M. (1997). *Education and saving: The long-term effects of high school financial curriculum mandates* (Working Paper No. 6085). Cambridge, MA: National Bureau of Economic Research.
- Bialaszewski, D., Pencek, T., and Zietlow, J. (1993). Finance requirements and computer utilization at AACSB-accredited schools. *Financial Practice and Education*, 3 (2), 133-139.
- Boyce, L. and Danes, S. (1998). *Evaluation of the NEFE High School Financial Planning Program 1997-1998*. Greenwood Village, CO: National Endowment for Financial Education.
- Carvahal, Ermelinda. (2002, September 5). *Aid administrators are among those testifying at Senate hearing on financial literacy among college students*. Retrieved September 16, 2002, from National Association of Student Financial Aid Administrators website:
<http://www.nasfaa.org/publications/2002/1financialliteracy090902.html>
- Chattoe, E. and Gilbert, N. (1999). Talking about budgets: time and uncertainty in household decision making. *Sociology*, 33 (1), 85-103.
- Clinebell, J.M., and Clinebell, S.K. (1995). Computer utilization in finance courses. *Financial Practice and Education*, 5 (1), 132-142.
- Consumer Bankers Association. (2002, April) *CBA 2002 survey of bank-sponsored financial literacy programs*. Arlington, VA: Consumer Bankers Association.
- Dornisch, M.M., and Land, S.M. (2002). A conceptual framework for the integration of multiple perspectives with distributed learning environments. *Journal of Computing Resources in Higher Education*, 14 (1), 3-26.

- Gramlich, E.M. (2002, May 2). *Remarks by Governor Edward M. Gramlich at the Financial Literacy Teacher Training Workshop, University of Illinois at Chicago*. Retrieved July 22, 2002 from Board of Governors of the Federal Reserve System website:
<http://www.federalreserve.gov/BoardDocs/Speeches/2002/20020502/default.htm>
- Kalman, S. (1996). Net gain: Internet use at New Vista High School. In E.J. Valauskas & M. Ertel (Eds.), *The internet for teachers and school library media specialists*, (pp.117-125). New York: Neal-Schuman Publishers, Inc.
- Lee, B. (2002). Let's not get lost in the standards!. *Children & Schools*, 24 (1), 59-64.
- Mandell, L. (2001). *Improving financial literacy: What schools and parents can do and cannot do*. Washington, DC: Jump\$tart Coalition for Personal Financial Literacy.
- Mandell, L. (1998). *Our vulnerable youth: The financial literacy of American 12th graders*. Washington, DC: Jump\$tart Coalition for Personal Financial Literacy.
- Mayer, R.E. (2001). *Multimedia learning*. New York: Cambridge University Press.
- Post, J. (1996). Surfing the internet in Santa Cruz. In E.J. Valauskas and M. Ertel (Eds.), *The internet for teachers and school library media specialists* (pp.135-143). New York: Neal-Schuman Publishers, Inc.
- Rose, K. (1996). Learning with the internet: Prospects for tomorrow. In E.J. Valauskas and M. Ertel (Eds.), *The internet for teachers and school library media specialists*, (pp.195-203). New York: Neal-Schuman Publishers, Inc.
- Sandlin, J.A. (2000). The politics of consumer education materials used in adult literacy classrooms. *Adult Education Quarterly*, 50 (4), 289-307.
- Shinn, S. (2003). Trade secrets. *BizEd*, 11 (2), 22-27.
- Spoehr, K. (1994). Enhancing the acquisition of conceptual structures through hypermedia. In K. McGilly (Ed.), *Classroom lessons*, (pp.82-101). Cambridge, MA: The MIT Press.

Stallard, C. (1996). Telecomputing in smart schools. In E.J. Valauskas and M. Ertel (Eds.), *The internet for teachers and school library media specialists*, (pp. 97-104). New York: Neal-Schuman Publishers, Inc.

U. S. Department of the Treasury. Office of Financial Education. (2002, October). *Integrating financial education into school curricula: Giving America's youth the educational foundation for making effective financial decisions throughout their lives by teaching financial concepts as part of math and reading curricula in elementary, middle, and high schools*. Washington, DC: U. S. Government Printing Office.

TABLE I - PERSONAL FINANCE MODULES FOR THE FEX (FRESHMAN EXPERIENCE) COURSE

MODULE 1 PERSONAL GOALS AND OBJECTIVES: the ideas and principles that you consider correct, desirable, and important. It is important to stress that personal values and goals must come before any financial planning.

MODULE 2 PERSONAL BALANCE SHEET AND INCOME STATEMENT: monthly and annual cash inflows/outflows, determining net worth, income, and expenditures.

MODULE 3 PURCHASING OR LEASING AN AUTOMOBILE: fair pricing, financing, and insurance issues.

MODULE 4 ISSUES AND PROBLEMS INVOLVING CREDIT CARDS: choosing a credit card, dangers of carrying a credit balance, etc.

MODULE 5 INSURANCE: discussion of life, health, disability, auto, and homeowners' insurance.

MODULE 6 INVESTING/RETIREMENT PLANNING: key terminology, establishing investment goals, understanding risk.

APPENDIX I - MISSION STATEMENT FOR CENTER FOR FINANCIAL STUDIES, SNHU

Center Vision

To establish and maintain a financial core competency throughout the University's programs and to extend the benefits of use of the facilities and assets of the Center to the community at large, strengthening the University's ties with area businesses and high schools.

Center Mission

Issues of finance cut across all sectors of the economy; therefore, the Center strives to provide access to a thorough and current base of cutting-edge knowledge in matters of finance and economics appropriate for a broad range of interests.

- For business/finance/economics professionals, both future and present, the Center will serve as a bridge between the University and the financial industry by providing a forum for gaining and maintaining state-of-the-art knowledge, theoretical as well as practical, through training and research.
- For the SNHU community in general, the Center will provide a means for obtaining a fundamental literacy in matters of finance and economics that will influence decisions one is called upon to make regarding one's personal finances and professional life.
- The Center will provide access to a variety of technology and historical data and news sources that will be beneficial to students, faculty, and staff of all disciplines within the University.

Implementing Strategies

The Center will accomplish its mission through the use of state-of-the-art data sources and technology that professionals may expect to use in the workplace, as well as data sources and technology that is readily available to the general public.

The Center will work with faculty from a cross-section of disciplines at the University to develop educational modules and to modify current lessons to include aspects of personal finance, financial issues within a given discipline, and/or to make use of the assets of the Center for non-financial purposes within two years. This will be accomplished in two stages: internet-based initially, then modified to make use of the assets in the completed Center.

The Center will provide support to faculty of non-business disciplines in the teaching of financial/economic topics.

The Center will provide training to faculty and staff of SNHU in the use of data sources and application software available in the Center.

Access to the Center's facilities will be extended to the community at large through executive education programs, programs for high school students, training for high school teachers, investment seminars for the general public, etc.

APPENDIX II - PROFILE OF SOUTHERN NEW HAMPSHIRE UNIVERSITY AND THE CENTER FOR FINANCIAL STUDIES

Southern New Hampshire University (SNHU) is a private, coeducational institution located on a 280-acre campus on the outskirts of Manchester, NH, a community of 100,000 located 55 miles north of Boston, MA. SNHU serves more than 6,100 full- and part-time students (4725 full-time equivalents) from 23 states and 38 nations annually through its undergraduate, graduate, continuing education and distance education programs. The ratio of faculty to students for undergraduate classes is 1:18. Originally founded in 1932 as an accounting school and formerly known as New Hampshire College, SNHU attained university status as of July 1, 2001. The University offers programs through its three schools: Business; Liberal Arts; and Hospitality, Tourism and Culinary Management; as well as programs in Education. In addition to Associate, Bachelor and Master degrees in its assorted programs, the University offers doctoral degree programs in International Business and Community Economic Development. SNHU is nationally recognized for its innovative three-year Bachelor of Science degree in Business Administration and is accredited by the Association of Collegiate Business Schools and Programs, the New England Association of Schools and Colleges, the New Hampshire State Department of Education for Teacher Certification, and the American Culinary Federation Educational Institute.

The Center for Financial Studies (CFS) at Southern New Hampshire University is the only such simulated trading room at an academic institution north of Boston in New England. The Center occupies 1,800 square feet of the first floor of Robert Frost Hall, a new 60,000 square foot academic center. Built in 2001, Robert Frost Hall also houses the Walker Auditorium, The McIninch Art Gallery, and multi-media classrooms and laboratories. The Center encompasses a main trading room, a smaller conference room, a storage room, a server room, and an office. The wall between the main trading room and the first floor corridor of Robert Frost Hall is floor-to-ceiling glass, providing a clear view of Center activities for passers-by. There is a Rise Softools data display board mounted on the front wall on each side of a multi-panel whiteboard. Rotating scripts of market data, including international indices, currency and commodity futures, in numeric as well as graphical presentation, are displayed. A Rise Softools ticker is mounted on one sidewall. The ticker displays price and volume data for a variety of stocks, price and tick data for a variety of indices, and currency and commodity data.

A 42-inch gas-plasma flat-screen television is mounted close to the ceiling in each front corner of the main trading room. Other audiovisual equipment includes a ceiling-mounted projector and screen, video and DVD display equipment, an Elmo visual presenter, and a complete sound system with wireless microphone. The televisions generally display cable news. However, video, DVD, Elmo

presenter, or the instructor's podium monitor can all be displayed on the televisions and projector.

Within the main trading room, there are an instructor's podium and 30 workstations. The conference room provides six additional workstations. The podium and each workstation are comprised of a Dell Precision 340 Minitower with dual 15-inch flat-panel monitors. Each Minitower houses a P4, 1.50GHz processor, 18GB, SCSI hard disk, and 512MB RAM, and operates with Windows 2000 Pro and Office XP. All PCs in the Center, including those in the conference room, are networked to the servers and to three laser printers. Each PC has Internet access and a variety of analytical and modeling software applications. One workstation serves as a Bloomberg terminal, with access to worldwide real-time data and news and specialized analysis tools. Altiris software allows the instructor to monitor workstation monitors and/or to control a workstation PC.

APPENDIX III - FINANCIAL EDUCATION CURRICULUM CLEARINGHOUSES¹

JumpStart Coalition for Personal Financial Literacy, www.jumpstartcoalition.org

National Council on Economic Education (NCEE), www.ncee.net

National Endowment for Financial Education (NEFE) and American Express
Economic Independence Clearinghouse List of Educational Materials,
www.nefe.org/amexeconfund

National Center for Financial Education (NCFE), www.ncfe.org

National Institute for Consumer Education (NICE), www.nice.emich.edu

¹ U. S. Department of the Treasury. Office of Financial Education. (2002). *Integrating financial education into school curricula: Giving America's youth the educational foundation for making effective financial decisions throughout their lives by teaching financial concepts as part of math and reading curricula in elementary, middle, and high schools*. Washington, DC: U. S. Government Printing Office.

APPENDIX IV - MODULE 1: PERSONAL GOALS AND OBJECTIVES

FEX: Basic Financial Literacy Modules

Module 1: Personal Goals and Objectives

Overview of Material

Personal Values and Goals:

Values: The ideas and principles that you consider correct, desirable, and important.

It is important to stress that personal values and goals must come before any financial planning occurs.

Statistics: Born to Earn

When nearly 200,000 college freshmen were asked which goals they considered important, they responded: (From the Higher Education Research Institute, UCLA)

Become wealthy 74%
Raise a family 70%
Become an expert in their field 65%
Help the less fortunate 62%
Develop a philosophy of life 43%
Clean up the environment 34%
Create artistic work 12%

Personal Financial Planning Process:

1. Gather information
2. Prepare personal financial statements
3. Identify short term and long-term personal financial goals
 - Cash flow planning
 - Income Tax planning
 - Risk Management
 - Investment Planning
 - Education Funding
 - Retirement Planning
 - Estate Planning
 - Charitable Giving
4. Formulate action plans
5. Activate and implement action plans
6. Monitor actual results and compare with plan

7. Return to step 1 and re-evaluate.

Financial Goals:

1. Financial goals should be realistic. They should be based on your income and current situation.
2. Financial goals should be stated in specific and measurable terms. Use numbers and time frames when you plan.
3. Always have a time frame in mind when planning financial goals. This will help you measure your progress as you approach your goal.
4. Financial goals should indicate the type of action to be taken. In other words, what exactly must be done to carry out each goal.

Educational Motivation

- Develop financial literacy and life skills of the individual.
- Realize that the first step to financial planning is to develop a set of personal goals and objectives that can guide the individual when they are making financial decisions in the future.

Proposed Outcomes and Competencies

Competency #1

"To master and apply state of the art computer/information based principles and business applications."

Goals: Computer Information Technology

1. To further understand the fundamental concepts of information and computer technology as used in the business environment.
2. To reinforce the use of and more effectively understand on-line computer-based technology *for* business research.
3. To further understand the influence of computer information technology on business, society, and the individual.

Competency #2

"To conduct analytical and creative problem detection and problem solving."

Goals: Problem Solving

1. To understand and apply a logical analytical process when problem solving and be able to modify this process to suit the situation.
2. To understand the role and necessity of creativity in problem solving.
3. To understand the various techniques that can be used to facilitate the problem- solving process.
4. To understand how to analyze the nature of a problem situation.
5. To understand how to evaluate alternative courses of action.
6. To understand that old solutions do not fit new problems.

Website Documentation

www.cpapfs.org

Directory of CPAs who have obtained the Personal Financial Specialist (PFS) designation. This site also includes general information about personal financial planning .

www.dtonline.com

News and information on personal finance, taxes and business, provided by Deloitte and Touche.

www.e-analytics.com/fpdir1.htm

Equity Analytics, Ltd. homepage. Has sections on the personal financial planning process and setting your goals and objectives.

www.lifeadvice.com

A Met Life site that provides links to family, money, insurance, health, business, and purchase advice. Also has a toolkit with calculators to help the user make decisions. An excellent website for all modules.

www.talkmoney.com

This website has a section on personal financial planning. It goes over common problems and questions, the need for planning, and a glossary of financial terms.

Lesson Plan and Relevant Assignments

Assignment 1: Defining Your Personal Goals:

1. Develop a preliminary mission statement. This should address what you want to be, what character strengths and qualities you wish to develop, what you want to do and accomplish, what contributions you want to make, and also what you want to have.
2. To help you do this, you may want to think about people who inspire you and those who have been influential in your life. What qualities do they demonstrate?
3. After you have completed the mission statement, ask yourself, "Does this statement inspire me?"
4. After you have completed the preliminary mission statement, picture yourself in thirty years. What accomplishments would you like to have achieved by that time? These can come from all areas, such as: family, career, personal wealth, public service, etc.
5. Using the above, prepare a set of personal goals for the next thirty years.

Assignment 2: Setting Financial Goals and Objectives

1. This assignment is only to be given if assignment 1 has been previously completed.
2. Develop a set of five to ten financial goals for the next five years. They should be consistent with the goals obtained from completion of assignment 1.
3. These goals could have to do with areas such as: cash flow planning, income tax planning, risk management, investment planning, education funding, retirement planning, estate planning, and charitable giving.

Lesson Plan:

Introduction to the Course:

Spend fifteen minutes introducing the course and its objectives and passing out a sheet with relevant websites.

Personal Values and Goals:

Spend thirty minutes going over personal values and goals and completing assignment 1 in class.

Personal Financial Planning Process:

Spend fifteen minutes going over this section.

Financial Goals:

Spend ten minutes on this section.

Assignment 2:

Spend five minutes going over this with the students and assign as homework.

Possible Assigned Readings:

Kiplinger Personal Finance. September, 1998. pp.61-68. "Living the Dream."

Newsweek. May 8,2000. Vol. 135, Issue 18, pp. 53-56. "A World of Their Own."

Time. November 1, 1999. Vol. 154, Issue 18, p. 115. "Freshmen Blues."

Time. December 29 -January 5, 1998. pp.91-92. "The Paradox of Prosperity."

Time. February 24, 1997. Vol. 149, Issue 8, p. 34. "Learning to Earn."

Module 1: Solutions

Assignment 1: Defining Personal Goals

What I want to be:

I want to be a happy, well-rounded person who has the ability to wake up every morning and be able to say I enjoy what I do, or at least realize the good that comes out of everything even if I'm not currently doing exactly what I want to do. I want to be able to pursue all avenues of interest and still be able to keep my life simple and balanced.

Desired character strengths:

Honest	Just	Respected	Trusted	Desired	Knowledgeable
Flexible	Free-Spirited		Curious	Fun	

What I want to do:

I want to travel all over the United States and eventually the world, and be able to work in environments where I am always learning and am challenged. I want to go through periods in my life where I work hard and make money, and then be able to leave my job to explore for a couple of years. I want to continue learning, and possibly go back to school when I know more about where my life is going. I want to eventually settle down and raise a family, and then continue traveling with my husband and my children.

What I want to accomplish:

I would like to graduate college and eventually graduate school. I would like to become well-respected in whatever field of work I end up in. I would like to raise a family that is happy and in good health.

What I would like to contribute:

I would like to contribute my skills and experience to teach children and help them in their life experiences, may it be formally or with my own children. I would like to contribute my time to further advance environmental studies to make the public aware of the things that they can do to make their environment better.

What I would like to have:

I would like to have a house with a lot of land, a summer home, a car of my own, and nice outdoor equipment for activities such as camping, backpacking, rock climbing, and kayaking.

Personal Goals For The Next Thirty Years

- Be able to converse moderately well in at least one other language.
- Travel the United States and the rest of the world whenever I get the chance.

- Become self-dependent.
- Get married and raise children.
- Be able to take time off to raise my children.
- End up working in a job that is challenging, exciting, and in a friendly environment.
- Learn a new skill every year.
- I would like to live in a secluded area.
- Be an inspiration to others in one way or another.
- Never forget the importance of listening and honesty in a relationship.
- Have the ability to change with the times while still holding onto the important old- fashioned values.
- Be able to raise my children in a rural environment.
- Be able to motivate myself to keep learning.
- Become a person who has the ability to educate others.
- Help out with outdoor education programs for children.

Assignment 2: Financial Goals for the Next Five Years

One goal that I have for myself is to participate in charitable giving to outdoor education programs for children. My first step would be to research some and evaluate them. Right now the only one I have in mind is Outward Bound, since I am an alumni of the program. For now I would make a monetary contribution, but perhaps later I would like to volunteer my time. Since my occupation after graduation is still unknown I cannot give an exact monetary amount I would like to contribute, but my goal would be at least 5% of my income.

I would also like to begin my retirement planning either with my future employer or on my own. I would start with a small amount, possibly around \$25 per month using dollar cost averaging until I have a significant increase in income. Since this would be a long-term investment, I plan to invest in an aggressive stock mutual fund and take on some risk and hopefully a large return. I would be happy with a return of 10% as the minimum, but my goal would be 15-20% return.

I would also like to participate in some other investments. I would like to save money for some things that are not as far away as retirement. This would include saving money for graduate school, for future travels, or a new car. Since these investments are more immediate, I would use a less risky vehicle than that used for retirement. Again, using dollar cost averaging, I would like to save about \$50 per month to put into a more dependable stock mutual fund. Perhaps one that is made up of large cap companies with a history of profitable returns.

Another goal that I have for myself is to fill out all of my own tax forms by myself. It would be a challenge for the first year or two until I got the hang of what I was doing. To this date I have never filled out my own forms and feel that it is a necessary step for anyone who is getting out there on their own.

A fifth goal that I have for myself is to become better educated of financial and business aspects. This would include regular reading of The Wall Street Journal and perhaps becoming a regular viewer of some financial television programs. Another thing that goes along with this would be conducting research on stocks and mutual funds and evaluating my portfolio.

The last goal that I have for myself has to do with insurance. I would like to be comfortable with reading and understanding benefits packages and taking advantage of any programs offered by my employer. This includes evaluating the amount of insurance I need for health, renters, disability, and eventually life insurance and making sure that I have covered all the necessary areas.

APPENDIX V - FACILITIES USAGE POLICY FOR CENTER FOR FINANCIAL STUDIES, SNHU

Usage. The assets of the Center for Financial Studies shall be made available to groups associated with Southern New Hampshire University and groups external to the University (Community and Corporate groups) free of charge provided that the proposed use is consistent with the Center's mission statement and provides significant educational content. The Center has adopted as its mission the establishment and maintenance of a financial core competency throughout the University's programs and to extend benefits of use of the facility and assets of the Center to the Community at large, strengthening the University's ties with area businesses and high schools. The Center would be happy to work with both on-campus and off-campus groups to structure programs/events consistent with our mission statement. In accordance with this policy, the Center will not be used as a vehicle to generate site fees and will not be used as a general computer lab.

It is the intent of the Center administration to discourage non-educational and/or strictly commercial usage of the Center facilities. Any program offered in the Center for Financial Studies should be able to offer a reasonable expectation of some immediate and/or long-term benefit to University constituents and/or relevant Community groups. Where there is some commercial element of a proposed program, the proposed event/program must also provide educational content and benefits expected to accrue to the Center, the University and/or an appropriate Community group, as determined by the Center administration.

When a use of the Center is proposed by any entity, the Center administrators will strive to establish a mutually beneficial relationship with the group. If such conditions cannot be established, the Center administration may, at its discretion, refuse use of the Center facilities.

Food and beverage service. Food and beverages are not permitted in the Center. Any food and/or beverages must be served outside of the Center, i.e., in a nearby conference room, the lobby of Robert Frost Hall, or other SNHU facility. Arrangements for food/beverage service are to be made with Dining Services and will be billed through Conference Services.

Insurance requirement. Southern New Hampshire University policy requires that all organizations using SNHU facilities must provide a certificate of liability insurance for a minimum of \$1 million. SNHU policy allows that this requirement be waived when the proposed use of Center includes significant educational content.

Public safety. In accordance with Southern New Hampshire University policy, Public Safety will be notified at least 2 weeks prior to any Center event that will include the serving of alcoholic beverages and/or at which attendance of greater than 200 people is anticipated. At the discretion of the Public Safety Director,

dedicated presence of a Public Safety officer may be required at said event at the current hourly rate (\$21/hour as of 10/28/02), 4-hour minimum, which will be billed through Conference Services.

Logistics. Conference Services will assist in scheduling events, entering events onto the master calendar, confirming dates, times and requirements (e.g., certificate of liability insurance) with users, and coordinating with Dining Services and Public Safety. It is understood that any proposed use of the Center must be approved in advance by the Director or Associate Director of the Center.