Personal Finance: An Alternative Approach to Teaching Undergraduate Finance

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Effective teaching invites students into the discipline and helps them to see and make connections between the discipline's content and their lives. This paper identifies an alternative approach to effective teaching of undergraduate finance. Personal finance, as opposed to managerial finance, provides a more appropriate foundation on which to center the undergraduate finance curriculum. It better matches students' interests, personal experiences, and cognitive structures. This paper takes the position that personal finance should precede managerial finance as the introduction and start to the finance major in the undergraduate business curriculum.

I. INTRODUCTION

A problem shared by many business schools these days is that of declining enrollments. Nationwide, the American Assembly of Collegiate Schools of Business (AACSB, 1996) reports bachelors enrollments at accredited business schools off 16.4 percent from 1990 levels. Similarly, the number of finance bachelors degrees conferred dropped 13.5 percent between 1989 and 1993 (U.S. Department of Education, 1991, 1995). Some schools have the compounded predicament of a simultaneous loss of the "middle" group of students; finance professors talk of experiencing a bi-modal distribution within their classes. While much debate surrounds these issues, questions about teaching effectiveness come to mind. Could it be that the introductory organizational structure of the discipline is responsible for limiting students' entry to finance? How can finance professors, through their teaching, pedagogy, and classroom climate, better invite students into the discipline?

The purpose of this paper is to identify an alternative approach to teaching finance which will (a) invite a larger, diverse group of students into the discipline and (b) improve undergraduate finance education for all. It takes the position that personal finance provides an effective approach to teaching undergraduate finance. Personal finance should be taught as the first course in the undergraduate finance curriculum. It should be the introductory

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and prerequisite course for the major. Personal finance issues should be the central and unifying thread throughout the undergraduate curriculum. Basic financial concepts, vocabulary, and principles should be taught first in terms of personal finance. It should serve as the foundation building block for further financial knowledge. Corporate finance topics should be introduced to the curriculum after students have a firm base on which to build and accept new knowledge.

Part I of this paper reviews previous research on finance education. Part II discusses student-centered learning. An examination of student-centered ways of knowing applied to teaching finance follows in Part III. The paper concludes by describing personal-centered finance and outlining steps required toward a theory of instruction in finance.

II. LITERATURE REVIEW

A. The Undergraduate Finance Curriculum

Much has been published about financial education and the undergraduate curriculum. Currently, and throughout its history, finance education has centered on business finance theory and practice. Brigham (1973) provided the rationale that as part of the business school curriculum, the finance core should remain oriented toward business finance. Traditionally, the finance curriculum has had three prongs: corporate or business financial management, investments, and financial markets and institutions (Brigham, 1973). However, there is often a wide gap and general confusion between what executives, accrediting agencies, and finance faculty members view as the ideal curriculum. Based on their survey of bankers, corporate financial officers, and finance academicians, DeMong, Pettit, and Campsey (1979) suggested that a finance curriculum for the future should accentuate communication and people skills as well as analytical skills. They found that academicians believed there to be an increasing need for quantitative and computer skills, while practitioners emphasized people and communication skills.

Conflicts are also apparent in comparing the Porter-McKibbin (1988) report, commissioned by the AACSB, to the McWilliams and Pantalone (1994) survey results on 800 finance executives. New AACSB standards, partly in response to the Porter-McKibbin report, are designed to allow for greater diversity in mission and curriculum for business schools, and are thought to encourage a broader undergraduate education. Yet when asked to define the optimal curriculum for an undergraduate finance student, the financial executives chose a curriculum which placed emphasis on business, and especially on finance and accounting courses (McWilliams & Pantalone, 1994).

While the debate over the curriculum for finance students continues, the introductory finance course content remains focused on business. Berry and Farragher (1987) surveyed 549 academic members of the Financial Management Association (76 percent of which were AACSB-accredited institutions) to determine characteristics of the introductory finance course. They found topic coverage to be fairly evenly distributed among financial management topics, with capital budgeting getting the most attention, followed by the time value of money, and the cost of capital/capital structure. Bialaszewski, Pencek, and Zietlow (1993) reported that although much flexibility is allowed in the design of AACSB-accredited programs, all (100%) of their survey respondent group required Financial Man-

agement I as the introductory finance course. This was especially noteworthy since the Bialaszewski, et al. (1993) respondent group offered many "nontraditional" finance courses; 38 percent regularly offered Personal Financial Management; 25 percent offered Life Insurance; 13 percent offered Estate Planning; 25 percent offered Property and Liability Insurance; and 65 percent offered Real Estate. At a tutorial presentation, Merton and Bodie (1995) demonstrated how the first course in finance can be a general introduction to the whole field of finance. They suggested that various subfield topics be presented within a single unifying framework.

B. The Personal Financial Planning Major

The concept of Personal Financial Planning (PFP) as a major or upper level finance course in the business program has also received academic scrutiny. Many found the financial services industry in general, and specifically the field of PFP, in need of people well educated and prepared to enter the field (Daigler, 1979; Gitman & Bacon, 1985; Higgins, 1983; Lavine, 1987; Ulivi, 1982). In response to this need, Daigler (1979) suggested a curriculum for a PFP major. Along the same line, Higgins (1983) argued that colleges of business and departments of finance should provide undergraduate students with the option to prepare for careers in financial planning. His model recognized that all of the primary areas of financial planning, namely insurance, taxation, and investments, with the possible exception of pension and estate planning, were already offered by well established departments of business administration. Higgins advocated that implementing the PFP major could be accomplished easily by adding to the already existing courses an upper-level Introduction to Financial Planning course.

Since most universities were already teaching a PFP course geared to nonmajors, the up-grade/switch to a comprehensive professional course was judged quite feasible (D'Ambrosio 1980; Higgins 1983). Ulivi (1982) proposed three alternatives for universities to follow in meeting the challenge posed by the increased importance of financial services: (a) offer a one-semester course in comprehensive financial planning, (b) offer an interdisciplinary certificate of financial planning, or (c) offer a new major in financial services.

Gitman and Bacon (1985) presented an explanation of the comprehensive financial planning process to argue for establishment of a PFP major. They described the basic elements of a comprehensive personal financial plan as closely related to traditional business finance education topics, yet sufficiently novel to warrant the establishment of a new major. For example, comprehensive personal financial plans include elements familiar to traditional business finance majors such as the Statement of Financial Position, the Statement of Cash Flows, a cash budget, an investment portfolio analysis, and an analysis of insurance needs. Other elements of a comprehensive plan are not traditionally part of the business finance curriculum. Examples of these include employee benefits analysis, retirement planning, estate planning, planning for educational funding, issues relating to closely held businesses, estate and gift tax planning, and goal setting.

Within the same article, Gitman and Bacon (1985) also reported the results of their 1984 survey of business school financial curriculums. As expected, respondent schools clearly emphasized traditional business finance topics. Only 5 percent offered an undergraduate financial services curriculum, but 21 percent of those respondents not then offering a financial services curriculum indicated that they intended to do so in the future.

C. Finance Pedagogies

Many publications describe finance pedagogies. Kalogeras (1976) provides a summary and critique of various pedagogies including modular learning, case method, the game approach, computer assisted instruction, and the traditional lecture. Some articles explore ways to better explain financial concepts to students. For examples see Horvath (1985) "A Pedagogical Note on Inter-Period Compounding and Discounting," or Kochman (1986) "Intrayear Discounting: Uses and Misuses." Recently, many authors describe pedagogies designed to transform the classroom into an active and realistic forum. For example, Dyl (1991), then Chan, Weber and Johnson (1995) and Graham and Kocher (1995) describe using popular movies in the introductory finance class to better students' understanding of the business. Nofsinger (1995) describes a multi-media project for the capstone course in finance which integrates the real-world topics of ethics and social responsibility with the finance of mergers and acquisitions. Lange (1993) and Yoon (1995) present spreadsheet approaches to teaching realistic financial concepts. Lawrence (1994) details experiences of establishing real as opposed to simulated student investment funds at US universities.

While pedagogic articles abound, relatively little has been done to assess various pedagogic approaches. Krishnan, Bathala, Bhattacharya, and Ritchey (1996) have recently surveyed students from three different business schools to evaluate their perceptions and expectations about finance and the introductory finance course. Preliminary results lead the authors to conclude that a significant number of business students find the introductory finance class neither useful nor interesting. Differences between the number of pre- and post-course survey responses suggest that a large percentage (about 25%) of students drop the course. In forthcoming work, these authors plan to address why the introductory finance course fails to engage a significant number of students. They will also offer their suggestions to make the finance course work more appealing.

D. Finance Student Learning

Working with education and psychology experts, Gentry has explored finance student learning (Helgesen & Gentry 1988; Pratt & Gentry 1994; Paulsen & Gentry 1995; Helgesen & Gentry 1995). Pratt and Gentry (1994) observed that finance professors are serious about their teaching effectiveness and are conscientious in trying to help students learn. Helgesen and Gentry (1995) noted, however, that professors' research activities are closely aligned to the theoretical structure of the discipline as opposed to research focused on learning within the discipline. Pratt and Gentry (1994) explained that there are several different learning styles and found that finance students seldom learn the same way as their professors. Differences also exist with respect to learning styles among students (Helgesen & Gentry 1995); female business students process information in significantly different ways than male business students; nonmajors process information differently than business majors. Helgesen and Gentry (1995) commented on the statistical under-representation of African Americans as business students. They suggest that finance professors interested in diversity must explore the discourse of the discipline to make their classrooms equitable to all types of students.

III. STUDENT-CENTERED LEARNING

Emphasis on student experiences rather than teacher authority can be viewed as the critical factor in achieving true understanding. With this approach, the teacher's role is to help students code information in ways that are appropriate to the individual. This requires teachers to evaluate students and their previous experiences in order to help them place new knowledge in their repertoires. This is very different from the traditional approach to teaching finance that views the class as content driven, based on theory, and rewards products (correct answers) rather than process and inquiry.

John Dewey's (1974) dictum to "start where the students are" is often ignored by college finance teachers who find it overwhelmingly complex to evaluate students' diverse educational, cultural, work, and family life experiences. In graduate finance programs, relevant work experience often provides the common base on which to ground advanced studies. A work experience requirement is not feasible, however, for acceptance to undergraduate programs. Most undergraduate finance curriculums prescribe prerequisites such as principles of accounting and economics and often a math course such as statistics. But unless these courses are grounded in students' experiences, they may also fail to make connections. For example, at many schools the principles of finance course prerequisites include a full year (two courses) in accounting. None-the-less, many principles of finance texts and professors start off the semester with a thorough review of financial statements. It is perplexing that often students who were very successful in accounting, even declared accounting majors, cannot distinguish between the income statement and the statement of financial position when in the *finance* classroom. Why this happens can be best understood in terms of missed connections. The accounting knowledge for many of the students is coded too functionally and not connected to other knowledge held. It only works in their accounting classes to answer accounting problems.

Similarly, connections can fail within the finance classroom. Ratio analysis is a staple of finance texts and courses. Yet it is not unheard of for teachers of the business policy capstone course to complain that students do not know ratio analysis. Could it be that students are blatantly lying when they deny having a thorough introduction to ratio analysis? Perhaps, but it is also possible that students are sincere in their denial; the knowledge connection fell short. In order for students to use specific finance know-how and techniques outside the finance classroom, the finance knowledge must be generically coded for future access.

Educational psychologist Jerome Bruner's (1966, 1973, 1977, 1986) structuralist views on knowledge and education provide a practical corollary. He contends that a person actively constructs knowledge by relating new information to a previously acquired frame of reference, called the coding system. Knowledge is an active process that requires learners to code information into storage systems for future retrieval and use. Bruner asserts that the problem with memory is not storage space, but retrieval. The best coding systems for efficient retrieval are expressed in terms familiar to the learner. As the learner masters domains of knowledge through discovery, she re-codes the storage system to make it more generic and thus more useful.

Bruner (1977) makes four claims as to the importance of discipline structure:

- Understanding fundamentals makes a subject more comprehensible;
- Unless detail is placed into a structured pattern, it is rapidly forgotten;

- Understanding fundamental principles and concepts is the main way to transfer training;
- Emphasis on structure allows re-examination of fundamentals, thus narrowing the gap between elementary and advanced knowledge.

Bruner contends that all teaching and learning should be connected to the broader fundamental structure of the subject. In addition to being intellectually exciting, learning is more likely to be remembered if it is tied together. Such emphasis on structure promotes transference of knowledge; good theory explains and is remembered. Further, the role of structure in learning takes on increased importance as today's students have limited experiential exposure to the materials they learn.

That finance requires an organizational structure is neither a new nor a controversial idea. From its inception, the principles of managerial finance course has served as the base structure of the discipline. Traditional finance curriculums offer the principles of managerial finance course first and as a prerequisite to further finance course work. Upper level courses typically concentrate on one section from the principles framework, teaching more advanced concepts in areas such as working capital management, investments, or capital budgeting. Many curriculums offer a senior capstone experience, which revisits theory and application at a higher and deeper level of understanding and instruction. Although it is clear that the traditional structure has lead to successful coding systems and transference of finance knowledge for many, there are others whose access to the discipline and its powers may have been unwittingly barred by the traditional managerial/corporate structure. Could it be that many students become turned off to finance because it seems disconnected from their lives? Does newly learned managerial-focused finance knowledge simply get lost in students' coding and retrieval systems because connections are not made to students' lives?

"An alternative way to "start where the students are" is to start with personal finance. Teaching personal finance first promotes connected knowing by linking what the students already know from their own financial experiences to the new knowledge presented in the course. The framework for knowing finance can thus be constructed by the individual learner, encouraged through self-discovery, and specific to each knower. Teaching personal finance as the first course in the discipline uses student centered experiences as the platform from which finance learning proceeds. As a coding system, personal finance is an effective cognitive structure since it is familiar to learners.

Personal finance provides a beneficial organizing structure for the discipline since it is couched in terms of students' interests and life experiences. Students have a positive attitude toward learning personal finance since they recognize the materials as being highly relevant to future use. They have many questions they want answered and they are aroused with interest. For example, as they get closer to graduation students become increasingly aware of the values of job options they hold, the need to consider and protect against the risks of poor health and loss of income, and liability exposures due to car ownership. They can appreciate the benefits of learning topics such as cash budgeting before they are truly independent of their families and facing a real life cash crisis. All have some previous personal financial experience and a certain degree of finance mastery. They have checking accounts, most have credit cards and some savings and investing experience--even if only with a bank savings account or series EE bonds. New and diverse situations, from changes in financial markets and instruments to changes in the family life cycle and goals, force students to apply old knowledge to new situations, making it more likely that the financial

knowledge will be coded generically as opposed to concretely. Finance can be illustrated to students in terms of their own lives, which they can understand, appreciate and practice.

Personal finance can abet the invention and creation of student coding systems. The personal financial planning process involves stages of planning activities from gathering and processing and analyzing client information, to developing and presenting the plan to the client, and finally to implementing and monitoring the plan (Hallman & Rosenbloom, 1987; Gitman & Joehnk, 1996). By emphasizing and teaching the process, answers become less significant than inquiry and procedure. As noted by Higgins (1983), comprehensive personal financial planning considers a broad array of topics including insurance, taxation, investments, and retirement planning. Students are encouraged to look at financial positions and goals in a holistic manner. For example, cash flow shortages are not seen as merely a budgeting problem, but also as the consequences of life-style and career choices, and spending and saving patterns. Students' intuition and personal experiences can be validated as appropriate sources for personal financial solutions. Analytical procedures can be applied by students to test their hunches, encouraging them to try out ideas and invent new solutions.

IV. STUDENT-CENTERED KNOWING

A quick fix and reorganization of the curriculum placing personal finance as the first course taught in the curriculum will have only limited success unless it is coupled with an expansion of the discipline. Economist Jean Shackelford (1992, p. 571) asserts that "how one teaches is as important as what one teaches." Including students' ways of knowing finance, matched to appropriate pedagogies, will more effectively invite them to join the discourse of the discipline. The personal financial management course offers a unique opportunity within the finance curriculum for learning to be student-centered.

Silence in the classroom is often misinterpreted by the professor (Belencky, et al., 1986). Rather than being an indication of lack of ability or preparedness, silent students are often turned off due to the clash between their own view and that presented by the discipline, the professor, and the dominant group of classroom peers. Instead of viewing classroom silence as a student deficiency, finance professors should heed silence in the classroom as a call to incorporate alternative learning approaches and pedagogies to increase participation.

To find successful examples of alternative pedagogies, one has only to look to graduate business education where these teaching methods dominate. Instruction is often rooted in authentic, real-world situations making use of rich and complex interdisciplinary cases and/or consulting work. Graduate students have the opportunity to work in groups and engage in meaningful functional tasks. The textured nature of real cases demonstrates to graduate learners the importance of multiple perspectives and considering all sides to every problem. The small group format is often used to give graduate students the opportunity to reflect on their projects and then to talk to the professor in shared learning environments. Professors model the skills to be taught by sharing expert thinking with students and by coaching them which entails more collaboration than evaluation. Most graduate programs emphasize a collaborative approach which prepares students for the teamwork environment of U.S. businesses.

To avoid "turning off" students, undergraduate finance should be taught incorporating the alternatives found in graduate business education. These pedagogies can be used effectively in *all* finance classes, including corporate and managerial finance classes. Personal finance, however, provides a unique opportunity within the undergraduate finance curriculum to incorporate not only alternative pedagogies, but also alternative ways of knowing.

The content of personal finance lends itself to shape learning episodes consistent with different modes of knowing. For example, personal finance centers on questions of human import. Ethical themes of care and duty can be easily incorporated in discussions centering on family financial goal setting. Personal finance is experiential and can include reflective practice. It offers students an opportunity to practice and reflect using their own life circumstances, their families, and friends. Cases can be used to encourage dialogue, asking students what *they* would do in this situation, and focus on how *they* would implement proposed changes. Personal finance is process rather than product oriented; by teaching the personal financial planning process, answers are viewed as less significant than inquiry and procedure. Personal finance is holistic; comprehensive personal financial planning considers a broad array of topics and encourages students to look at financial positions and goals in a holistic manner. Personal finance is intuitional; students' intuition and personal experiences can be validated as appropriate sources for financial solutions. Finally, personal finance is experimental. Analytical procedures can be applied to test student's hunches, encouraging learners to try out their own ideas and invent new solutions.

V. PERSONAL-CENTERED FINANCE

As previously noted, many authors have discussed the concept of and pedagogical issues surrounding personal financial planning education as a major or upper level course in the business program (Daigler, 1979; D'Ambrosio, 1980; Gitman & Bacon, 1985; Higgins, 1983; Lavine, 1987; Ulivi, 1982). Merton and Bodie (1995) presented the notion that the first course in finance should be an introduction to the whole field. Further, the first course should be taught within a single unifying framework. This paper takes the position that personal financial management should be used as the unifying structure and framework for presenting principles of finance.

It has been suggested that most principles of finance courses, and the textbooks, try to cover too much material and present too much detail for an introductory course (Merton & Bodie, 1995; Krishnan, et al., 1996). Finance professors need to decide on the top ten "big ideas" necessary to acquaint, welcome, and encourage students to the field of finance. Once decided, these big ideas can be effectively introduced from the perspective of personal finance. Table 1 shows an example of the large overlap between managerial finance topics and personal finance topics in two popular texts. While some differences in topic coverage can be found, the similarities are striking.

The only business finance topic without a corollary in personal finance is the weighted average cost of capital. Note, however, that even the component costs of capital (k_p, k_d, k_s) can be approached from the personal side of the transaction as the investor's required return on investment. Personal finance topics are sufficiently broad to provide a strong foundation on which to base further finance learning. A thorough presentation of personal finance as the preliminary course can provide students with an alternative yet rigorous introduction to the discipline.

TABLE 1
Comparison Between Two Texts: Chapter Titles, Numbers, and Topics

Fundamentals of Financial Management (*Brigham and Houston 1996*)	*Personal Financial Planning* (*Gitman and Joehnk 1996*)
Overview of Financial Management, #1, goals of the corporation; importance of financial management; careers in finance	**Understanding the Financial Planning Process,** #1, types of financial goals; the rewards of sound financial planning; planning your career
Financial Statements, Cash Flow, and Taxes, #2, balance sheet; income statement; statement of cash flows; the federal income tax system	**Your Financial Statements and Plans,** #2, balance sheet; income and expenditures statement; cash budget **Managing Your Taxes,** #3, principles of federal income taxes; calculating and filing taxes
Analysis of Financial Statements, #3, ratio analysis	Solvency, liquidity, savings, and debt service ratios presented in #2; Book value, ROE, EPS, P/E., Beta in #11
The Financial Environment: Markets, Institutions, and Interest Rates, #4, financial markets; term structure theories	**Making Security Transactions,** #12, securities markets and information; managing investments;
Risk and Rates of Return, #5, stand alone and portfolio risks; CAPM	Risk-return relationship, investment risks, and yields covered in #11
Time Value of Money, #6, present and future values; uneven cash flow streams	Time value of money concepts, present and future values presented in #2
Bonds and Their Valuation, #7, finding expected interest rate k_d, default risk	**Investing in Stocks and Bonds,** #11, stocks; bonds; preferreds; convertibles; yields and returns
Stocks and Their Valuation, #8, common and preferred stock, rights and privileges	**Investing in Mutual Funds,** #13, basics; types and services; asset allocation stocks covered in #11 and #12;
The Cost of Capital, #9, WACC; MCC; k_p; k_d; k_s	
The Basics of Capital Budgeting, #10, NPV; IRR; MIRR	**Making Housing and Automobile Decisions,** #5; buy vs. lease; financing
Risk and Other Topics in Capital Budgeting, #11, estimating cash flows; the optimal capital budget	**Insuring Your Life,** #8, life insurance **Insuring Your Health**, #9, health and long-term care; disability income insurance **Protecting Your Property,** #10, property and liability insurance; auto insurance
Capital Structure and Leverage, #12, target capital structure; business and financial risk; capital structure theory	**Borrowing on Open Account,** #6, basic concepts of credit. **Using Consumer Loans,** #7, managing your credit
Dividend Policy, #13, theories; policies; practices; factors influencing	Cash and stock dividends, dividend reinvestment plans, growth discussed in #11
Financial Forecasting, #14, projected financial statement method; AFN	**Meeting Retirement Goals,** #14, pension plans; annuities; 401(k); social security **Preserving Your Estate,** #15, wills; trusts; gift and estate taxes
Managing Current Assets, #15, cash management; cash budget; techniques; marketable securities; inventory control	**Managing Your Cash and Savings,** #4, role of cash management; the new financial marketplace

This paper calls for finance professors to join the education movement to collaboratively develop a theory of finance instruction which specifies:

1. The experiences which most effectively implant in the student a predisposition toward learning;

But what these experiences should be we cannot at present say. Collaborative research with colleagues from education and psychology could provide answers. What financial, life, and learning experiences embed in students a thirst for learning finance? What causes students to yearn for and to appreciate the power of financial knowledge? As financial experts, finance professors' input and research efforts are required in this endeavor.

A favorable predisposition to learning is also dependent on cultural, motivational, and personal factors. For example, the relationship between the college finance teacher and the student might be a factor in whether the student likes finance or not. Setting an inviting class climate in finance may be motivational to students as well as "conducive to more effective teaching, and therefore, more effective learning on the part of all students" (Sandler & Hoffman, 1992, p. 1).

There has been much written recently about girls and math, and how girls are denied an equal education (Sadker, 1994). But finance academe has not yet addressed the implications of these findings. For instance, if we find that women students do not relate to learning finance when they have come from a family where the man makes all the financial decisions, then what can we do as teachers to stimulate interest? The impact of culture, motivation and personal factors on finance pedagogy needs our scholarly attention and exploration.

2. Ways to structure the knowledge so that it can be readily grasped;

   This paper argues that personal finance presents a powerful structure for simplifying information, for generating new propositions, and for increasing the manipulability of financial knowledge for undergraduate students.

3. The most effective sequences in which to present materials;

   For example, should concrete examples always be presented before notation? What symbolic forms of representation do learners hold at various stages of understanding? How do individual factors, such as differences with respect to experiences or past learning, impact the optimum sequence? Research is required that identifies the basic building blocks of financial learning and explores their sequencing. Students enter finance classes with a wide variety of previous personal financial experiences. The sequencing of finance materials should be designed to provide the missing yet essential building blocks for those with little experience.

4. The nature and pacing of rewards.

   Rewards are either provided from extrinsic sources to the learner such as the teacher, or from intrinsic sources within the learner. Intrinsic rewards are more sustainable and thus more desirable. The ideal situation is for knowledge of results and the ability to make corrections to be the learner's reward; this allows for the learner to achieve independent mastery. Too often in finance, as with other college classes, the reward from the knowledge of results is provided only from the graded chapter test, quiz, or homework assignment. An exam becomes the end of the unit rather than a way to communicate the learner's progress and take corrective actions. The goal is for students to recognize on their own when comprehension is incomplete and to seek help from the instructor.

A curriculum must be built and tested by close observational and experimental methods to assess it fully. There are many opportunities and challenges for finance faculty to make important contributions toward a theory of finance instruction.

VI. SUMMARY

Application of educational and learning theory supports the position that personal financial management should be positioned as the cornerstone, first course taught in the finance curriculum. Students learn complex concepts best when structured in ways that have meaning and relevance to them. Connected knowing is fostered by centering new learning on students' past experiences. Of all the finance courses, personal financial management is most relevant to undergraduate college students; it provides the best scaffold for linking new finance learning to their current and near future lives.

The implications of this paper's position and call for change in business school curriculums would be varied. Some programs already offer an upper-level personal finance course. For these programs changing the course sequence to teach personal finance first and managerial finance second would be relatively simple, although it may be difficult to add a required course to the major. Other business school programs offer personal finance only as a service course to nonmajors. For these schools, the transition would be more difficult since the course would have to be redesigned with more rigor and reallocation of faculty course assignments would be required. Finally, there are programs where no personal finance course is taught what-so-ever. The restructuring of the curriculum for these schools would most likely face faculty resistance and would be extremely difficult since they have not previously taught or valued personal financial education. It is encouraging to note, however, that the AACSB's new standards make diversity among business school programs a possibility. How best to introduce students to and engage students in finance is a matter of bold trials and dogged assessment.

A theory of finance instruction needs to be developed to specify the requisite topics and experiences, discipline structure, topic sequence, and reward system that best achieves student growth. How we teach is as important as what we teach, and what we teach needs to be presented in ways consistent with students' views. Good teaching of personal finance as the first course in the undergraduate finance curriculum would provide a broad fundamental structure for the discipline to which all subsequent learning can be easily connected. It will also promote transfer of knowledge in later undergraduate finance and business course work.

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