

Best Practices of Experiential Education in Finance

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Experiential education provides a pedagogical approach to facilitate learning through direct experience. The principles of best practices of experiential education are applied to finance pedagogy to provide a resource to faculty interested in creating learning experience opportunities. Faculties at The University of Tampa apply a variety of experiential pedagogical approaches across the finance curriculum. We briefly describe experiential education as a pedagogical approach followed by various applications of experiential education in finance curriculum.

INTRODUCTION

How does learning occur? There are a variety of approaches and learning models that provide theories of how learning occurs. Experiential education is an approach that engages learners through direct experiences and focused reflection. The student benefits of experiential education are well stated in the literature and provide a framework for creating valuable learning experiences. Students become engaged learners by applying concepts and techniques to situations faced in the workplace. Following an experience students internalize the knowledge through reflection. This approach provides students a deeper understanding of concepts than traditional approaches. These experiences prepare students to enter the workforce with the ability to apply analytical techniques to a variety of situations.

Experiential education is an instructional approach based on the notion that ideal learning occurs through direct experience. The Association for Experiential Education (2013) defines experiential education as a philosophy that inform practices in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities. The National Society for Experiential Education (2013) developed the "8 Principles of Good Practice for All Experiential Learning" to outline conditions, steps and actions that are necessary for success in experiential learning. According to the NSEE there is a mutual responsibility in the learning process and in the relationship between the learner and any facilitator(s) of learning. All parties are empowered to achieve the principles, which follow.

1. Intention
2. Preparedness and Planning
3. Authenticity
4. Reflection
5. Orientation and Training
6. Monitoring and Continuous Improvement
7. Assessment and Evaluation
8. Acknowledgement.

The facilitator(s) of learning are expected to initiate the process in ensuring both the quality of the learning experience and of the work produced and in supporting the learner to use the principles, which underlie the pedagogy of experiential education (NSEE, 2013). Finance faculty members apply experiential education principles through a variety of approaches across their curriculums. These techniques facilitate learning through experiences and reflection. The following is a brief description of several experiential learning activities within multiple courses that are designed to prepare future business leaders. Any assignments discussed for the following courses are available from the author upon request.

INTERMEDIATE FINANCIAL MANAGEMENT

Senior finance majors who will be graduating in a semester or two make up the majority of students in this course. Consequently, it is important for them to apply the concepts taught to real companies and situations. The topics covered in the course include dividend policy, capital structure, cost of capital, capital budgeting, working capital management and Du Pont analysis.

This course has always been applied with numerous projects. The change to a more experiential format involves tying the topics together into a semester long project so that the students see how all of the corporate finance topics are related. It also gives students a greater opportunity to apply their knowledge to analyzing one company from a variety of angles.

The major experiential component involves a semester long project that incorporates an analysis of dividend policy, capital structure, cost of capital, components of working capital management and Du Pont analysis. It includes written communication through two memos, Excel analysis, and an oral presentation. Finally, it requires both individual work throughout the bulk of the semester with the final Du Pont analysis and presentation completed as a team. Students complete an individual reflective piece as a component of the final group assignment. The primary goal of this experiential exercise is to encourage students to

stretch their skills beyond structured textbook examples to the messiness of the real world.

Learning Objectives Assessed:

Students will:

- Complete a Du Pont analysis and evaluate the strengths and weaknesses of a firm
- Complete a weighted average cost of capital for a firm
- Discuss the static theory of capital structure and the implications for firm value
- Explain and use a variety of techniques in the analysis and management of a firm's working capital
- Identify and describe the key determinants of dividend policy
- Communicate analysis and recommendations effectively with professional business documents
- Develop and use spreadsheets effectively

Assignments

The overarching premise of the assignments is that each student has been hired by the Board of Directors of a company for a three-month period to evaluate areas of the firm's performance. The final project is a team Du Pont analysis and presentation to the Board. While the students do not work with the actual company in this assignment, they are evaluated on how professionally and effectively they communicate with the intended audience. The students are each assigned a publicly traded company that has a presence in the local economy. The number of companies per class depends on class size but it is best to have three to four students per company. This a good team size for the final project while allowing for the fact that some students may drop. Students are not told who is on their team until the team assignment is provided at the end of the semester. The students are reminded multiple times that the initial projects are individual work.

Du Pont analysis is introduced at the beginning of the semester and students are reminded with each assignment that they will be presenting a Du Pont analysis at the end of the semester. The goal is to encourage them to collect relevant data and information as they complete each deliverable. Students are also introduced to a number of web sites that can be used to find the required information or help with professional communication. A list of the sites introduced is provided in the Appendix.

The first assignment has three parts. The first part is to determine an appropriate benchmark to use when evaluating the firm's performance. The second part is to investigate the firm's dividend policy over the last five years by looking at dividend payout rates. The students are to consider the firm's policy relative to the chosen benchmark, along with reasons discussed in class for high and low dividend

payouts. Their task is to incorporate this information into a discussion about whether the firm is currently following an appropriate dividend policy. The third part is to evaluate the firm's capital structure relative to the benchmark and to consider differences in book value capital structure versus market value capital structure. They are to make recommendations to the Board regarding the appropriateness of the capital structure incorporating the static theory, pecking order theory and the information content of financing decisions. They are required to present the information in a professional one-page, single spaced memo with appropriate APA citations and works cited.

The second assignment requires students to collect the data to estimate the company's overall weighted average cost of capital. They are required to use Excel for all calculations. They must estimate the market value of debt based on information in the most recent 10-k or 10-Q and find the appropriate cost of debt based on whether the firm has publicly traded or privately held debt. They have to estimate the cost of equity using the dividend growth model, if appropriate, and the CAPM. All data must be collected from online sources. This assignment is submitted as a professionally formatted Excel document.

The third assignment focuses on working capital management. The students are required to calculate the firm's cash cycle relative to the benchmark and discuss the implications for short-term financing needs. They must also determine if the firm has a flexible or restrictive working capital policy and discuss how that impacts credit analysis, inventory management, and cash management. This assignment is also submitted as a one page, single-spaced memo with appropriate APA citations and works cited page.

Student teams are formed after completion of the third assignment and are given a week to put together a Du Pont analysis for the firm. This final project is designed to allow students to learn from each other as they see how others collected and interpreted information. Each team is given between 10 and 15 minutes to present their analysis to the Board (the other students in the class). They are evaluated individually on professional attire and presentation skills. The team is evaluated on a smooth and cohesive presentation and the professionalism and effectiveness of the presentation materials.

The benefit of this approach over the traditional lecture, exams and stand alone assignments is that it provides students practice finding and interpreting company information as it relates to finance theory and management. Since every company is different, there is inherent ambiguity in the assignment structure and in how the information is presented within the various sources. This forces the students to think critically about what information is relevant and how to use it. Tying all of the assignments to the same company allows students to see the interrelatedness of the decisions that financial managers make. The series of assignments requires them to utilize

spreadsheet skills along with written and oral communication skills. These are all skills that companies demand but that students often have little practice using in a traditional lecture format.

Another benefit is that it provides students with a complete analysis that they can discuss during the interview process to illustrate what they have learned and the type of analysis they are capable of completing. At least two students have gotten jobs and/or internships with the companies that were analyzed in class in part because of the work that they had done. Copies of the assignments are available from the authors upon request.

ENTREPRENEURIAL FINANCE

Entrepreneurship students typically take the Entrepreneurial Finance course in their junior year after they have conducted a feasibility analysis for a business they intend to launch. If a student does not intend to launch a business they are connected with other entrepreneurs who have completed a feasibility analysis for a business being launched. Each student creates a dynamic business model projecting cash flows each month for the first year and then quarterly out to five years. Monte Carlo simulation is utilized to analyze the risk return profile for the new business. The feasibility analysis provides the basis for the assumptions in the business model. It is critical that each assumption is realistic and is thoroughly researched prior to being entered into the model.

Learning Objectives Assessed:

- Create financial forecasts that allow the entrepreneur to predict the timing and amounts of financing required to grow the firm.
- Use working capital management to minimize the problems associated with the lack of liquidity of the new venture and to prevent the insolvency of the new venture.
- Determine the optimal capital structure that maximizes the value of the new venture for the entrepreneur.

The course begins with an unannounced elevator pitch designed to break the ice and engage students in the learning process. Each student is asked to provide a two minute elevator pitch of their business venture followed by questions and answers. After all the presentations are completed, the instructor demonstrates a completed business model that includes a Monte Carlo simulation using Crystal Ball software. Appropriate techniques for efficiently creating a dynamic business model utilizing Monte Carlo simulation are identified. Crystal Ball provides cumulative probability distribution graphs of forecasted variables along with sensitivity analysis of all assumptions (Margetis 2009). This presentation initiates a class discussion where each

student is asked to identify the key assumptions in their business models so that they can begin to form the structure of their model. Students submit their completed feasibility analysis from a previous course and prepare to build their model in Excel.

During the next two class periods students create their business model. They are encouraged to collaborate and help work through issues with their peers. The instructor provides the students with general techniques that are helpful in overcoming common issues that students encounter when building a business model. Each assumption entered into the model is thoroughly examined and must be meticulously documented. Students present their business model in the following class. These presentations provide the instructor an opportunity to vigorously question each assumption and the projected cash flows. Students are encouraged to question their peers during the presentations. The presenters have their business models “torn apart” by the instructor and other students in class in order to force the students to think critically about their business model. They quickly realize that their business models and assumptions are inadequate during this first round of presentations. Each student is asked to write a one page reflection on what they need to do to improve their business model following their presentation and critique.

Students correct the issues identified during the presentations and prepare to present again in class. The second round of presentations gives the students an opportunity to incorporate what they have learned from the first round of presentations and the class discussions into their business model. Typically by the second round of presentations students have learned to critically question assumptions and have become more proficient in identifying the weaknesses of business models. The repetitive process of preparing and critiquing a variety of business models allows students to expand their awareness and understanding of business strategies. Engaging students in the learning process forces them to step outside their comfort zone and make decisions when faced with ambiguity. Students become more critical in the evaluations of their peers during the second round of presentations. This helps prepare them for the panel of judges they will face during the final presentations. The second round of presentations pinpoints remaining inadequacies in the business models and provides students with additional feedback that they can use when preparing their final presentation.

The final presentations are done before a panel of venture capitalists, successful entrepreneurs and faculty in a “shark tank” format. Each panel member is allotted a fictitious \$1,000,000 to fund new businesses. Class grades are determined by whether a student’s business received funding, the quality of the business model, and the analysis of the risk of the new business. Several students have received real funding from panel members following their presentation. One student received \$20,000 from a

successful entrepreneur to file a patent and manufacture demonstration models of the product to be used in marketing the product. Once this milestone is achieved additional funding would be made available to market the product and provide working capital to facilitate sales. The experience has accelerated the development of the student's business from idea to launch. Several venture capitalists on the panel expressed interest in later rounds of financing for the company dependent on achieving a series of milestones including filing patents, manufacturing the product, receiving purchase orders, and becoming cash flow positive. The external validation of student ideas often motivates them to continue to work and develop their businesses after the class is over.

Previously the entrepreneurial finance course was taught using the traditional lecture and exam method. Students were provided lecture material on financial accounting, valuation methods, working capital management, pro-forma cash flow estimates, and sources of capital. This method lacked authenticity and did not adequately prepare students to launch a business. The entrepreneurial students under this approach did not understand the importance of finance and lacked a deep understanding of the concepts. They were unable to apply the concepts to real world applications. Comments from the students indicated that they were not interested in finance and they just wanted to start running their business. They viewed that the finance function was not important for entrepreneurs and could be outsourced to a CPA firm. Following the changes in pedagogy entrepreneurial students appreciate the importance of finance in making business decisions and can apply financial techniques to quantify the benefits and costs associated with each alternative. Business decisions are now more thoroughly analyzed to maximize enterprise value subject to the constraints the entrepreneurs face. The entrepreneurship students now are better prepared to start and run their ventures following the changes in pedagogy.

NEW VENTURE CAPITAL

New Venture Capital is a graduate elective course that is focused on investing in early stage, high growth firms from the venture capitalist's (VCs) point of view. Most of the students in this course are interested either in starting their own businesses, becoming an investment banker, or working at a venture capital firm. Lectures on term sheet terminology, deal structuring, and valuation are provided to provide the students the necessary skills to evaluate term sheets critically. Students are then given an "investor friendly" term sheet to evaluate and identify key negotiation items. Students are randomly split into entrepreneurs and venture capitalists and then paired up to negotiate a final term sheet in class. The students are then asked to write a reflection on how the experience achieved the learning objectives. The in class experience provides an authentic

experience that demonstrates the complexities of negotiating private equity terms for new business ventures. Students benefit from using critical thinking skills to apply theoretical constructs to real world situations and have a deeper understanding of the nuances of financial decisions.

Learning Objectives Assessed:

- Interpret legal terms used in financial documents
- Evaluate impact of alternative capital structures on firm value
- Negotiate term sheet conditions
- Value enterprises using appropriate valuation techniques
- Quantify the financial impact of term sheet conditions

The course begins with a series of lectures aligned with learning objectives and assessment. The lectures are divided into mini-lectures based on learning objectives. The learning objective is stated at the onset of the lecture. The lectures typically span fifteen to twenty minutes followed by a brief student discussion of the appropriateness of the material in achieving the learning objectives. Formative assessment of the learning objective is employed following each mini-lecture to provide the students an opportunity to evaluate their understanding of the material. This typically involves providing students current examples from the financial press and asking students to apply the knowledge in analyzing the articles. This approach requires students to use critical thinking skills to apply theoretical constructs to real world settings. The students submit a five minute reflection paper on their analysis. The instructor uses the reflection papers to determine if the learning objectives are achieved and to adjust future pedagogy for continuous improvement.

Following the lecture series the students are given an actual term sheet offered to the management of a new venture. The name of the firm is changed to protect the identity of both the venture capitalist and entrepreneur. The term sheet was written by the venture capitalist's attorney and strongly favors the VC. Students are given one week to analyze the term sheet and prepare a written response analyzing the financial implications of the terms of the offer for both the entrepreneur and the VC. This exercise has two primary goals. The first goal is help students understand term sheets from a real-world perspective. The second is to better prepare students for their potential future as an entrepreneur, investment banker, or a VC. Entrepreneurs often find themselves at a disadvantage when negotiating terms with a venture capital firm. VCs tend to have more experience with term sheets since they negotiate them on a regular basis while this may be the first time that an entrepreneur has seen one. Also, since entrepreneurs are in need of the funding they often feel less able to push for certain terms that are more in their favor for fear the VC

will walk away from the deal. This exercise illustrates this mismatch by putting the students in both the role of VCs and entrepreneurs.

After evaluating the actual term sheet provided in class, the students are split into groups representing a variety of entrepreneurs and venture capital firms. Then venture capital firms and entrepreneurial companies seeking equity financing are divided into groups. The groups may contain an equal number of entrepreneurial companies and venture capital firms, there may be more venture capital firms than entrepreneurial companies (boom time), or there may be more entrepreneurial companies than venture capital firms (bust times). The venture capital firms begin the process by providing a term sheet for the entrepreneur to review. The term sheet includes the terms under which the VC is willing to invest its capital and favors the venture capital firm. It includes key terms such as pre-money valuation of the company, amount of equity the venture capital firm is willing to invest and the proposed ownership percentage following the investment.

This begins the negotiation experience for the students. The task for each group is to agree on the final terms and provide a completed term sheet. Since venture capital firms are often more sophisticated and have more power than the companies seeking capital, the entrepreneurs must carefully evaluate the terms and identify areas that strongly favor the VC. The entrepreneurs must then propose alternate terms that are more favorable to them but that the VC is likely to accept. They must provide a list of proposed changes to the VC along with a defensible rationale for the change. This provides the basis for the negotiations between the entrepreneurs and the venture capitalists. It may be necessary during the negotiating period for the instructor to provide mediation if groups are at a complete standstill. Another remedy to force negotiation is to make the overall grade of the exercise based upon a successful completion of the term sheet. This forces the groups of VCs and entrepreneurs to negotiate terms and work through minor differences. Prior to leaving class the students are required to submit the final agreed upon term sheet.

For the next class period, students provide a written paper examining what they considered while negotiating the term sheet and discuss the biggest issues or pitfalls they had while negotiating. Groups then discuss their final agreements with the class. The presentation of the final term sheets provides a good opportunity to discuss the conflicts of interest that arise when negotiating the term sheet. It also provides insight into how market conditions impact the final outcome of the agreements. Students develop firsthand knowledge of the difficulty in determining the fine details included in a term sheet. They also acquire a better understanding of the negotiation skills required in business. After each group has discussed their negotiated terms, the instructor provides the students with highlights of the actual final terms negotiated for this particular deal if it is based on real companies or expected terms given current market conditions if based on mock companies.

Previously the lectures were provided in the traditional format of lectures spanning the entire class period with a mid-term and final exam for assessment of learning objectives. This method lacked authenticity and did not accurately assess the ability of students to apply knowledge to real world settings. Students were not engaged in the learning process and were not required to reflect on their achievement of learning objectives. The new pedagogy encourages students to become engaged learners and facilitates deeper knowledge through reflection. Students perform better on post assessments and are better prepared to apply knowledge in their careers. Comments from students indicate that the experience of negotiating the term sheet enhanced their understanding of the material and forced them to use critical thinking skills.

APPLIED INVESTMENT MANAGEMENT

Applied Investment Management is an elective for senior finance majors. Students are only admitted by permission of the instructor. Students taking this course manage a real money investment portfolio. Throughout the semester, students consider the financial markets and current and proposed securities investments for the portfolio. They examine investment decisions from the perspective of the investment management team in the context of an integrated, global investment environment.

This course provides students the opportunity to directly apply their finance skills through the hands-on management of a real portfolio. Students are engaged in real-world investment activities that provide valuable skills for their future careers. This course is taught with a decision-making focus that requires students' to use appropriate quantitative analysis to justify their decisions with respect to a variety of investment alternatives. Over the course of the semester students use current prices and transactions, as well as time-proven analysis techniques to make investment recommendations and decisions.

Learning Objectives Assessed:

Students will:

- Explain and apply investment policy principles to the design of a managed portfolio.
- Discuss the advantages and disadvantages of active versus passive management
- Explain concepts of market efficiency and their implications for investors
- Explain the rationale for international diversification
- Describe the costs and difficulties in international investing
- Explain the various strategies known as "value", "growth" and "momentum"
- Discuss the evidence on the performance of different style portfolios
- Identify the most successful strategies for the past 10 years and longer term

- Explain the CAPM in the context of modern portfolio theory
- Compute and interpret beta, alpha and r-squared

This course emphasizes making investment decisions that are consistent with portfolio objectives in a competitive, efficient-market environment given limited and ambiguous information. Students formulate investment objectives, develop investment policy, and implement investment strategy. Students apply key finance principles that guide the selection of investments, measure portfolio performance, and evaluate the performance of investment managers.

Specifically, students manage a real money portfolio valued at more than \$182,000 during the spring semester of 2014. Students take on the role of both a financial analyst and a portfolio manager as they apply the theories and concepts of investments to evaluation and selection of securities for the portfolio. The risk-return paradigm is central to the analysis. Students hone their quantitative and qualitative analysis skills as well as their written and oral presentation skills in an environment that has real consequences in terms of the returns on the portfolio.

In the role of financial analysts, students research and present an analysis of both portfolio firms and new firms for inclusion in the portfolio. Students make recommendations for specific stocks based on valuation measures, risk, attractiveness of the industry, and financial performance.

In the role of portfolio managers, students make decisions about which securities to keep in the portfolio and which securities to add to the portfolio based upon recommendations of the financial analysts and their own individual research. Students must use the appropriate quantitative analysis to justify their decisions with respect to a variety of investment alternatives. Students must also evaluate appropriate asset allocation and the rebalancing of the portfolio through time.

Previously the applied investment management course was taught using the traditional lecture method with periodic exams for assessment of learning objectives. This method lacked authenticity and did not accurately assess the ability of students to apply knowledge in a real world context. The new pedagogy encourages students to engage in real-world investment activities that provide valuable skills for their future careers. The decision-making focus of the course requires students to use critical thinking skills, which ultimately enhances their understanding of the material. The new pedagogy creates opportunities for students to gain real-world experience with investment portfolios and students are better prepared to make investment decisions in their future careers.

Appendix

Reuters
<http://www.reuters.com>

SEC Company Filings
<http://www.sec.gov/edgar/searchedgar/companysearch.html>

MSN Money
<http://money.msn.com>

Yahoo Finance
<http://finance.yahoo.com>

Bloomberg
<http://www.bloomberg.com>

Financial Industry Regulatory Authority
<http://www.finra.org/Investors/index.htm>

Mergent
<http://www.mergentonline.com>

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