STUDENT-MANAGED INVESTMENT FUNDS: A FRAMEWORK FOR REGIONAL SCHOOLS

Anne Macy, West Texas A&M University

ABSTRACT

Finance programs at regional schools face two main challenges. As the job market for finance graduates has become increasingly competitive, finance programs are searching for ways to make their graduates more marketable. Second, limited resources and a focus on student assessment have forced departments to alter programs that can provide tangible results. One solution to these challenges is a student-managed investment fund. This paper examines how to design a successful student fund at a regional school and use it to assess and improve the finance program. Survey results on student attitudes concerning the student-managed fund are also presented.

INTRODUCTION

Student learning has always been the goal of education. The "chalk and talk" method has been the traditional technique of teaching, but this method may not mesh well with current students. Students who are used to video games and the Internet can become bored by the lecture format, especially since most of their classes use this method. Instead, students desire formats and techniques that are more engaging. Students who are more engaged do better in the classroom and retain more of the material (NSSE, 2006).

While the National Survey of Student Engagement points out the importance of engaging students, the scores earned by the colleges and universities can be misleading. Chatman (2007) finds that students in similar disciplines report more similar gains in skills than students at the same institution but in a different major. Furthermore, the exams and surveys that institutions use do not adequately measure student learning because they don't assess critical thinking and communication skills. Employers seek graduates with higher-order skills along with the requisite discipline knowledge (Epstein, 2007). Communication skills is commonly mentioned as a skill business students lack (McWilliams, 1994).

Students learn in a variety of ways but students who are active learners learn and retain more than more passive students. A question for finance programs is how to teach students to not only apply the concepts but also do so in way that allows students to demonstrate these skills for potential employers. As higher education becomes more focused on accountability of students learning, programs need to develop ways to meet this goal. One way is to let the students be portfolio managers including making the investment decisions and suffering any negative consequences. This allows finance programs to close the loop on curriculum and assessment. If the students are able to tangibly exhibit their skills gains to employers, the value added by the finance curriculum is clear and accountable.

While there was research in the 1990s on the basic design of a student-managed investment fund, there has been a dearth of research on how to use the fund to assess the finance curriculum or how the fund can play a role in connecting the finance program with alumni. Furthermore, other than a cursory nod that challenges exist at smaller schools, there has been no research on tangible assistance to designing a fund and to fit it into the curriculum – assessment paradigm. The small amount of research or news articles has been on the performance and asset choices of student funds.

This paper is unique in that it presents the role of the student fund in the finance program and, in particular, how it can be part of the assessment process for the major. The first sections present an overview of student funds and the role in of a fund in program assessment. Then the framework for how to design the fund, which can compensate for the initial constraints faced by smaller schools, is presented. The framework acts as a guidebook leading the students' decision-making process while recognizing the fund's role within the finance discipline. This is expanded in the section on learning objectives and ties the objectives to the curriculum of the CFA and CFP designations. Survey results from the portfolio fund students are presented in the sixth section followed by conclusions in the last section.

OVERVIEW OF STUDENT-MANAGED INVESTMENT FUNDS

Active learning has been shown to increase student involvement and retention of information (Kolb, 1981). However, the active learning is usually within the classroom as case studies (Carlson and Schodt, 1995; Palmini, 1996), team projects (Bartlett, 1996), or games (Angel, 1994; Gardner, 1994). Student-managed investment funds provide active learning but with the real-world conditions desired by today's employers.

Student-managed investment funds are portfolios that are completely managed by student groups. The students make the buy and sell decisions concerning investment choices with actual money. The funds provide real world experience for students while cementing the theories learned in class. Not only are student funds an applied teaching tool, student decisions regarding the management of the fund along with fund performance can be used to assess the finance program.

Student funds also cross over into the business world and provide a connection for finance programs. Not only is the job market more receptive to students with money management experience, but also the students have more confidence in their abilities. The increase in reputation has a positive impact on the finance program. This positive externality can be carried over to alumni by increasing linkages. The alumni monitor the fund to see how their picks and the overall fund are doing. The fund becomes a vehicle not just for friend-raising but also for fundraising in the community.

Because the funds are actual money instead of a stock market game, student-managed investment funds present certain challenges to the faculty advisor. An initial issue with student funds is which students are allowed to participate. The students chosen must be aware of their fiduciary responsibility to the university. The students who make the decisions must be capable of making sound investment decisions that are in accordance with the frequency of fund trading.

The number of student-managed investment funds has grown quickly. There are over 150 active programs in the United States. Student-managed investment funds are most common at large, doctorate-granting institutions. The larger schools have access to greater funds and students. This allows the investment funds to have many restrictions and rules for the design and daily management of the student fund (Block and French, 1991; Bhattacharya, 1994; Johnson, Alexander, and Allen, 1996; Lawrence, 1996; Kahl, 1997; Dolan and Stevens, 2006). For example, the classes may be by invitation only and restricted to senior-year or graduate finance majors.

This flexibility is not available to regional schools. A regional school is hard to define succinctly; however, for the purposes of this paper, it is a school without priority for state resources and fundraising. In addition, regional schools have a smaller student base and draw from the immediate area instead of nationally. Due to faculty availability constraints and smaller student numbers, the student-managed portfolio may be a part of the portfolio theory class in the finance curriculum instead of as a stand-alone course. The students may be required to take the class instead of selected to be in the class. In other words, the faculty advisor cannot restrict access to the course. In addition, students at smaller schools tend to work and have families. The outside commitments restrict the amount of time the students can devote to the fund. For the students, the amount of time they will spend is equivalent to the amount they would normally spend for a class. The fund may only make trades a few times a year instead of weekly or monthly as in larger schools making the minimum holding period one year. These characteristics present obstacles to a successful student-managed investment fund.

With regards to assessment, regional schools may not have the faculty resources for several distinct assessment measures. Instead, efficiency requires that assessment be tied into existing courses.

The host institution for this research is a mid-sized regional university in the southwest. The student-managed investment fund has a value around $600,000 invested in stocks and cash built from an initial donation of $50,000 seventeen years ago. Students study the portfolio and present buy and sell recommendations to the entire class. The class votes on the recommendations. A smaller group of students, called portfolio managers, review the analysis reports, the recommendations and the votes. These students finalize the decisions and present the results. The portfolio class is a one-semester course and buy/sell decisions are done yearly at the end of the class.

ROLE IN ASSESSING FINANCE CURRICULUM

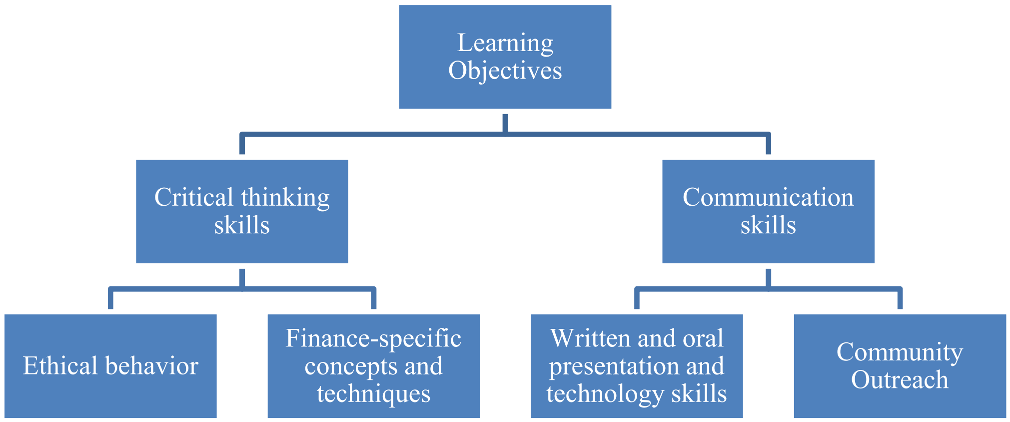
The role of a student-managed investment fund in the finance curriculum is three-stage. First, it is a tangible teaching tool that students use to apply the theories of portfolio management. Because of the applied nature of a student fund, it serves as the capstone experience for the finance program. In the second stage, the finance faculty can assess the success of the program at meeting the learning objectives and make any necessary changes for program improvement. The final stage is to ask the students, alumni and employers to assess the program's ability to meet each group's needs. The last two stages involve closing the loop on assessment of the program both internally and externally.

As the role of assessment increases, the second and third stages gain in importance and necessity. Experimental courses provide a natural method for assessing programs (Walstad, 2001). Finance programs tend to use exam-based methods for assessing curriculum (Redle and Calderon, 2005). However, this process overlooks a vital part of critical thinking skills: the ability to communicate the analysis. Finance majors respond that they are comfortable with the mathematics of analysis but not the communication of the results (Chatman, 2007).

The main learning outcomes for a finance program within a business program are both theoretical and practical. Student will demonstrate knowledge of finance-specific principles such as the risk-return relationship, term structure of interest rates, efficient capital markets, and agency problems. Furthermore, students will demonstrate the ability to apply finance-specific fundamentals and critically interpret and solve problems related to time value of money, investment analysis and corporate finance. In addition to the traditional financial knowledge learning objectives, finance curriculums usually require proficiency in basic computer application programs. Since the scandals in the finance industry, ethics has moved from an implicit learning objective to an explicit learning objective. Finally, the finance program should prepare students for careers in banking, financial planning and corporate finance. Thus, the finance curriculum is expected to meet four global learning objectives: finance-specific knowledge, written and oral presentation and technology skills, ethical behavior, and community outreach (see Figure 1). The objectives can also be divided into either critical thinking skills or communication skills.

The student-managed investment fund meets these goals in several ways. The key idea is to design an assessment tool that allows the students to demonstrate their skill gains. The stock or bond analyses that the students typically create while working on the fund is the natural connection. Each student is able to show the mathematics of the calculations but also explain what the analysis means to the reader. Instead of taking an exam and choosing the best answer, students are forced to express the meaning behind the numbers in their own words, which creates the link between the critical thinking skills and the communication skills.

Figure 1



The process is similar to humanities disciplines that have students create a portfolio of projects throughout the curriculum. However, for efficiency, the asset analysis is one major project that encompasses all the main topics in security valuation. Finance programs tend to be much larger than history or speech programs, and professors don't have the time for repetitive assessment. Furthermore, because of the integrated nature of a finance program within a BBA degree, having an end of curriculum project allows the student to demonstrate cross-discipline knowledge.

The global objective of finance-specific concepts and techniques is the most easy to demonstrate. As students apply the ideas of investment analysis and portfolio management to the fund and individual assets, they are developing the key connection between the theory and the application. For example, finance students are well-versed in the theory of time value of money. Analysis of the fund requires that students calculate the expected future price of each stock in the fund or considered for addition to the fund under different macroeconomic conditions. The students learn the ambiguity of the actual number calculated because of the number of estimates required in the computation. As the students alter the estimates and calculate a range of prices, the students apply sensitivity analysis and how to critically interpret earnings and price projections.

Using computer applications such as Microsoft Excel provide students with the needed skills for complex computations. But technology is integral to communication. Thus, having students use Microsoft Publisher for their stock reports allows them to learn a new application plus it teaches them how to communicate the ideas in an attractive format. Furthermore, the students have a tangible item for their portfolio for the job market. The students can post their reports on the Internet for sharing with alumni and employers, which generates a connection with the finance program's community.

Including the finance community helps to close the loop for the finance program. The student-managed investment fund asset choices are always of interest to alumni of the program. An implicit benefit of the fund that employers notice is how the students handle an asset that is not successful. The ability of a student to accept and learn from failure is a desired attribute that the fund allows some students to display. In addition to the basic community relations, the student-managed investment fund is a tie to alumni for fundraising. Alumni are much more likely to give to specific projects, especially when they can see the results.

Perhaps the most overlooked role of the student-managed funds is the emphasis on ethical behavior. The funds are real and the students must recognize their fiduciary responsibility with managing those funds. By instilling in the students how the earnings will be used, the students are less likely to view managing the fund as a game and instead, really consider which assets will help the fund achieve its desired risk-return relationship and diversification.

The substantial application tool that the student-managed fund provides allows it to be the capstone experience for the finance program. Not only are the majority of key finance concepts covered but so are the main computations. All of this is done within the constraints of fiduciary responsibility, which further helps students develop their ethical compass.

The fund becomes the key assessment tool for the finance program. Student papers and presentations can be used to assess student thought process and student ability to apply the theory to actual monies. Overall portfolio performance provides a tangible way to evaluate student knowledge versus major indices, major mutual funds and other student-managed investment funds. The finance faculty is then able to make recommendations for program and curriculum improvement. The results of the student fund and the assessment process can then be used to market not just the finance program but also the finance majors to alumni and the employers.

STUDENT-MANAGED FUND FRAMEWORK AT A REGIONAL UNIVERSITY

Regional schools face unique challenges in regards to designing a student-managed investment fund. The first challenge exists even before the course begins. The finance faculty member may not be able to control who is in the course. By allowing all finance majors to take the class and participate, more students become involved. The inclusion of a mixture of student backgrounds results in a variety of viewpoints on the market and the path the student fund should take. However, the faculty member must be more vigilant as to student projections to make sure personal opinions don’t override sound analysis. This can be addressed by having the class act as a portfolio management team, making all decisions together. The students act as checks on each other’s actions instead of each student vying for first place.

In order to begin the class and work on the portfolio immediately, the students should have had a semester of investments as a prerequisite in order to have a working vocabulary for the course. If this is not possible, the faculty member needs to assign readings for students to provide them the vocabulary to begin analyzing investments.

The following steps outline the basic structure for a student-managed fund class while taking into consideration the limitations at a regional school.

STEP 1: SET ASSET ALLOCATION GUIDELINES

Because the students may not have a strong background in portfolio theory, there is a tendency for the students to follow the latest trend as they view the fund as a semester long competition instead of following a long-run strategy. Following an asset allocation plan gives the students a guide as to how the pieces of the portfolio puzzle fit together. In order to avoid an overweighting in one asset or sector, weights need to be set before each semester. The students then work within the asset allocation framework to reach the goal of long-term growth.

The asset allocation guidelines need to be fairly specific with a tight range. Not only should the guidelines include the percent in stocks, bonds and cash, but also the percent in large, mid and small cap stocks, corporate bonds, government bonds and international stocks. Furthermore, to avoid an overweight in an industry sector, especially the current hot sector, ranges for each sector needs to be explicit. The ranges allow the professor to set the benchmark for the class. By having a tangible comparison, the students have an additional guidepost to use as a reference and for mid-term evaluation of the portfolio.

Many of the students will be reading and watching the financial press for ideas. The guidelines aid in keeping the students focused on the overall strategy of the fund and not what was on the CNBC or in the *Wall Street Journal* the day before.

International holdings must be explicitly addressed in the guidelines. Many students will shy away from examining foreign assets because of the difficulty in gathering information. A study by Jennings and Jennings (2006) examined thirty student-managed investment funds and found that less than half have international holdings and of those that did, the average percent of holdings was less than 5% to total fund value. The faculty advisor needs to convey at the start of the course the role of international assets in the student fund.

STEP 2: SET DECISION-MAKING FRAMEWORK

Designing the decision-making process is the most important step because it determines how the students approach the fund. The students are only with the fund for a semester but their decisions can affect the fund for at least the next year. At the start of each semester, there may be hesitancy in decision-making. Once the students realize that they really will be making the buy and sell decisions, they begin to take their actions seriously.

The students are charged with finding appropriate additions to the fund. However, the students have a tendency to believe that it becomes a sales pitch and try to convince the other students that the asset is a good addition because they fear a lower grade. It is important to structure the class to encourage students to take the job of finding good additions seriously without turning the search into a competition where students have a fear of losing. In addition, students need to learn that is just as important to identify an asset that initially seemed like a good choice but after a closer examination realize that it does not fit the portfolio. The students need to understand that they are acting as stock analysts and not salespeople.

The frequency of trading has to be determined before the fund begins. If the faculty member has the time, a more hands-on approach can be taken. However, at smaller schools, the class may only meet for a semester and the faculty member has other responsibilities in addition to the fund. During the fifteen weeks of class time, decisions for the upcoming year have to be made. This forces the fund to be more conservative because the stocks have a minimum of a one-year holding period. Thus, students need to understand that their decisions are long-term decisions and that the fund can not try to time the market.

Buy decisions are more easily decided upon than sell decisions. It is hard for many students to admit that an asset choice did not work out or to decide to be satisfied with a given percentage gain. In order to address this tendency, the students are required to decide upon a sell rule for each buying decision. The rule has both an upper and a lower bound. The upper bound provides a basis for the capital gain the students are willing to accept. More importantly, the lower bound states the most the students are willing to lose. If the broker is willing, the orders can be placed and the stocks sold during the off periods for the portfolio. The future classes use the prior classes' bounds as guidelines for setting new upper and lower bounds or deciding when and if to clear the position.

If the decision-making framework is followed, the chance for a poor stock pick is reduced. While it will certainly happen, the ex-post experience is compared with the ex-ante decision to identify any problems in the thought process. The decision-making framework becomes the basis for the teaching points of the fund for future classes.

STEP 3: JUSTIFY THE DECISIONS

Once the asset recommendations are presented, each student votes on the proposals. There is no possibility of a non-vote. Because the students are sometimes reluctant about making a decision, each student is required to write a justification for each stock purchase and sell decision. This forces the students to make a decision and really think about the decision beyond a simple vote. The justification is a useful tool for compelling students to solidify the reasoning behind their vote and not just express an opinion. This is an importance step in developing ethical reasoning. In addition, the writing skill of an opinion is not always easy for students, especially for those that lack confidence. After writing a semester of voting justifications, the students are able to make cogent arguments about each stock.

Because all finance majors are required to take the class, each class has its share of uninterested students. The other students recognize these students and while not criticizing them in class, will critique them in the justifications. The more devoted students will not believe the lackadaisical students and their analysis and opinions. As a negative, because the work is not evenly shared amongst the students, the more industrious students are forced to compensate for the others. However, they are usually satisfied with the punishment of the other students in the form of low grades.

The justifications have a further benefit. While the class discusses the stocks as a whole, the justifications and votes are anonymous to the other students. The students are not intimidated into voting a certain way. This helps the students make ethical decisions and do what is right for the student fund.

STEP 4: PREPARE REPORTS

An annual report is an excellent way to summarize the decisions of the class. As each student researches an asset, the student should prepare an analyst report that is presented to the class. The reports are complied for an overall annual report that recaps the course and decisions. The analyst reports can be used by the students during job interviews as formal documentation of their abilities. The written and oral reports allow the students to demonstrate their critical thinking skills along with communication skills.

A simple format for both the analyst reports and the annual report is to use a Microsoft Publisher newsletter template. The template provides space guidelines for the students for each part of the analysis. Having a common format makes all the reports consistent. This further emphasizes that the students are part of a team.

The thought process for each asset needs to be documented, even for the assets examined but not bought. This plays a vital role in the assessment of the student fund and of the finance program. The finance faculty can examine the thought process for each asset and identify strengths and weaknesses in the program. For example, changes in interest rates have a different effect on stocks than on bonds and on different sectors of the economy. By scrutinizing the analysis and projections by the students on the assets, the faculty can determine of which concepts regarding interest rates the students have a strong understanding and with which concepts the students are struggling. From this analysis, the finance faculty can revise the curriculum and program. Furthermore, the emphasis on writing, presenting and documenting meets finance program learning objectives on critical thinking and oral and written communication skills.

The documentation serves an additional purpose for the professor. The due diligence process is formalized and the faculty member is able to document the analysis and decisions. Because actual money is used, the faculty member must recognize his fiduciary responsibility and be able to demonstrate the portfolio management process that was followed.

STEP 5: TIE THE FUND TO SCHOLARSHIPS

The students as a whole have a risk tolerance higher than that of the average investors. The money is not their own money and they don't get any immediate benefit from a capital gain or penalty from a capital loss. Other then the grade in the class, there is no other explicit incentive for the students. Most student funds do not return the students the gains nor do they explicitly state how the gains are used.

Because there is no negative consequence for their buy and sell decisions, it is difficult to keep the risk-seeking behavior in check. Tying the student-managed fund to scholarships partially counteracts this tendency and cements the students' fiduciary responsibility. As a source of scholarship money for the college, students know who the recipients are. This increases their sense of responsibility and decreases their risk-taking behavior. The students see the tangible results from their decisions not just in the fund's performance but also in the scholarships it produces. An effective tool is to have pictures of the scholarship recipients in the classroom along with pictures of prior classes. The students realize that they are part of something bigger and value the sense of tradition. This is a unique attribute of student funds.

When tying the fund to scholarships, there is an inclination to encourage the students to be overly conservative. Part of the educational experience is making mistakes and learning from those mistakes. While blatantly bad decisions are not tolerated, the students are allotted a small amount of money to try a more risky investment or an investment technique. For example, today's students are very computer-oriented and many of the companies they are interested in are technology companies. During the technology craze the picks worked out well but during the bust the students faced the risk and return relationship daily. The losses were recognized as the cost of choosing riskier stocks. Successive classes learn what worked, why and when as they build their knowledge of past markets.

STEP 6: TIE THE FUND TO ALUMNI AND EMPLOYERS

As a community outreach, the student-managed fund is tied to a luncheon lecture series. The alumni and other community individuals donate an amount to the fund to cover the cost of food and expenses for the portfolio and series. The series brings in speakers to present to the donors. Typical speakers are economists and fund managers from companies with offices in the town along with individuals from the Federal Reserve Bank. Many local banks and brokerage houses bring in investment professionals to speak to clients. The firms recognize the increase in exposure they receive through the lectures and media coverage.

The students are present at each luncheon and interact with the professionals. The alumni have a tie to the college. They are updated to the current performance of the stocks and for those that participated in the fund while students, they are able to see what has happened to their stock picks. The luncheons become a place for networking, between alumni and between the students and alumni. The first step to successful fundraising is friend-raising. The fund and lecture series provides this necessary first step.

Once a year, the students present their portfolio management decisions to the lecture series. Three to five students are identified as portfolio managers for the presentation. By enrolling in an independent study or internship, the portfolio managers can gain additional academic credit. Their job is to monitor the portfolio and make adjustments as needed. They prepare the annual report and interact with the investment series. Because these students are the leaders, they can be given the power to veto the decisions of the regular classroom.

This linkage with alumni and employers provides a tangible part of the assessment process. The discipline shows the community that its students are learning not just the discipline-specific skills but also the ability to communicate the analysis. A part of most college mission statements is preparing students for the job market. The finance discipline is able to demonstrate and assess its ability with each class.

Table 1: Body of Knowledge

Learning objective: Student will be able to	CFA Level 1	CFP
Explain how the main macroeconomic variables affect the price of the asset	Section VI: C; Session 5-21 to 28; Session 14-60	Topic 35
Describe the role the firm plays in the industry and how industry-specific characteristics affect the price of the asset	Section VI: C; Session 4-18 to 20; Session 14-61, 62	Topic 35
Discuss how the addition of the asset to the portfolio will improve the diversification and the risk-return profile of the fund	Section I: A, B; Section VI: C; Section X: J, K; Session 1; Session 12-52	Topic 41 - A, B, C, and Topic 42 - A
Assess the liquidity, activity and profitability ratios of the firm	Section VI: C,D; Session 7-34, 35	Topic 40 - A
Calculate and interpret the value of the asset using the dividend discount model	Section VI: C,D; Session 12	Topic 38 - C
Calculate and interpret the price multiples of P/E, P/BV, P/S and P/CF	Section VI: C, D; Session 14-64	Topic 38 - D
Assess what the main technical indicators show about the asset along with the limitations of technical analysis	Section X: L; Session 14-63	Topic 40 - B
Assess the role of international markets on the asset price	Section X: K; Session 6-29, 31	
Calculate the required return, expected future price and expected return to the asset	Section VI: C, D; Session 12-53, 54; Session 14-59, 62	Topic 37 - E, F, G and Topic 43 - A
Conduct and interpret a sensitivity analysis on the assumptions of calculating the expected future price	Section VI: C, D; Session 14-59, 62	Topic 40 - E

LEARNING OBJECTIVES

Basic program design is mission-based. AACSB requires schools to explicitly tie discipline-learning objectives and assessment into the college mission. The faculty determines what the learning objectives are, designs the curriculum to meet the objectives, assesses student performance, and adjusts the curriculum based on the assessment results. Because of the focus on outcomes assessment, the initial objectives must be created to allow for accountability. Student reports on the assets provide a tangible mode for assessment. Furthermore, the body of knowledge covered in a detailed analysis shares some objectives with the Certified Financial Analyst (CFA) and the Certified Financial Planner (CFP) exams. Table 1 presents the basic outline of the body of knowledge in a stock analysis and the corresponding objectives for the CFA Level One exam and the CFP exam. Each objective corresponds to a section of the report.

The completed analysis allows the students to demonstrate their skill level of finance knowledge and techniques with the added skill of communicating the analysis. In terms of assessment, each student analysis can be evaluated based on the sample rubric in table 2. A goal might be for at least 90% of the students to score a level 3 or 4. The rubric can be expanded from this basic framework by individual professors to include specific sections of the analyst report.

Table 2: Critical thinking, analytical and problem-solving skills rubric guideline

LEVEL 1 INSUFFICIENT	LEVEL 2 SUFFICIENT	LEVEL 3 COMPETENT	LEVEL 4 ACCOMPLISHED
Demonstrates severe misconceptions about the important themes or issues.	Displays an incomplete understanding of the important issues in a question or problem.	Displays a rather complete understanding of the important issues or themes in a question or problem.	Displays a thorough and accurate understanding of the important issues or themes in a question or problem.
Excludes data and information.	Overlooks some information.	Incorporates information.	Synthesizes and assimilates data and information.
Omits arguments.	Misconstrues arguments.	Argues clearly.	Argues succinctly.
Fails to present any solution or recommendations.	Acknowledges some aspects of context to the problem and solution.	Considers the influence of context on the choice of solutions.	Demonstrates a clear sense of context in proposed solutions.

SURVEY RESULTS

In order to evaluate issues related to the student-managed investment fund, a survey was administered to 61 students in four portfolio classes. The results derived from a simple t-test are presented in Table 3. The response on each question is rated on a 1 (strongly disagree) to 5 (strongly agree) scale. The central point on the scale is labeled neutral. The empirical results in Table 3 test the hypothesis that respondents are neutral with respect to the survey question $\{T = [(\chi - \mu)\surd\eta]/\sigma$; where H_o: $\mu = 3\}$ and follow the methodology described by Iman and Conover (1989). Five of the six survey question means are statistically different than three (neutral).

The first two questions address the fiduciary responsibility of the students. The students are familiar with the term principle-agent problem used in the first question. The students agree that tying the portfolio funds to scholarships increases their obligation to make sound decisions. While not statistically significant at the 95% confidence level, a majority of the students consent that the principle-agent problem is an issue in the decision-making process. The students need to understand that their decisions have actual dollar consequences and thus, they need to take the responsibility seriously. Using the fund for student scholarships provides the link.

Table 3		
Questions	Mean	T-stat
Student recommendations for the fund are riskier because of the principle-agent problem.	3.22	1.86
Student recommendations for the fund are riskier because of the principle-agent problem.	3.42	2.08*
The student-managed investment fund provides marketable experience on portfolio management	4.02	6.68*
The student-managed investment fund improves writing and critical thinking skills.	3.94	5.96*
If possible, I will belong to the lecture series as alumni.	3.8	3.59*
The student-managed investment fund improves the overall quality of the finance program.	4.32	8.28*
*p<0.05		

The students agree that participating in the fund increases their marketability. The students include the experience on their resumes and bring the stock analysis reports and the annual report to job interviews. The students are encouraged to list the companies and assets that they researched on the resume. For many students it is the only practical experience in finance they have before graduating. Former students who are now employers look for the experience on the resumes and use the fund and investment analysis as part of the job interview. The fourth question demonstrates the increase of student confidence in their abilities by acknowledging improved writing and critical thinking skills.

The final two questions address the overall experience of the students with the fund. Being a part of the student-managed investment fund has a positive impact on the students and they want to continue to participate after graduation. Of the current 80 members in the lecture series, eleven are former students with the number increasing each year. Maintaining alumni connections is always challenging at regional schools. The student-managed investment fund and lecture series provide a ready link for networking and fundraising. Having a student-managed investment fund increases the overall quality of the finance program in the eyes of the students. They realize that they are getting to do something that is done at the larger schools. They also realize that they might not be chosen to participate if at a larger school but are taken seriously at a regional school. The experience of managing the fund cements the theories from all the other classes in the program while preparing the students for their careers.

In a roundtable discussion with alumni and local employers, both groups agreed that the student-managed investment fund improved the quality of the finance graduates. The employers indicated that they looked more favorably on students who brought a stock analysis report to the job interview. They indicated that they were more likely to hire students who could demonstrate the techniques of analysis and the communication of the results. Several employers give preference to those students who participated in the fund.

CONCLUSIONS

Effective education necessitates knowing more than the theories for the exam. It should prepare the students for their professional lives. There are several advantages associated with the student-managed investment fund. The funds provide practical experience to students. The students are able to try the skills and ideas learned in class. By working on a semester-long project, the students are able to see how the ideas and techniques are interrelated. The students learn how to make buy and sell decisions for a fund. The experience increases the students' confidence in their abilities and confidence for when they enter the job market. Participation in the fund has a positive reputation effect and increases the marketability of the finance major and its graduates.

The fund acts like a capstone course, putting all the ideas together. Because most of the finance concepts and techniques are used in the course of managing the student fund, the student fund is a useful assessment measure for a finance program. The finance faculty is able to discern how well the students understand the various concepts and their ability to apply them in a real-world setting. The fund is a vehicle to see how well the program has met its goals and offers an opportunity for applied critical thinking and writing.

The inclusion of all students in the fund puts additional pressure on the faculty advisor to structure the class to accommodate both the struggling student and the detached student. By designing a comprehensive structure at the start of each class, the faculty member is able guide the students through the portfolio management process without being overly intrusive into the students' actions. Setting a strict asset allocation plan allows the students to work within a framework. The students need to follow guidelines on buying and selling. Because buy decisions are easier to make than sell decisions, sell rules need to be set to limit the possibility of the fund from holding a stock too long. The investment analysis reports and voting justifications force students into a defined thought-process, which aids them as they develop critical thinking and writing skills.

The faculty advisor must be aware of the tendency to choose overly risky stocks because the students lack ownership of the funds. The problem of the lack of ownership of funds can be tempered by linking the fund to scholarships. By knowing who the scholarship winners are, the students recognize the importance of their decisions and their fiduciary responsibility. To further solidify the importance of their decisions, the students can write voting justifications. The problem of peer pressure is reduced and the students learn to write objective opinions. When discussing the direction of the portfolio, the students are timid about criticism. Learning to take and give constructive criticism is a by-product of the class.

Finally, the lecture series links the fund to the community and alumni. The community is becomes an active participant in the finance program. Members of the lecture series are able to follow the progress of the student fund along with meeting students. The student fund acts as a foundation for networking and fundraising for the finance program along with providing networking opportunities for members and students.

Survey results support the need for the framework and the role of the student fund within the finance program. Students believe that the use of the fund for scholarships encourages more responsible actions. The students believe that the experience of the fund increase their job marketability and increase the overall quality of the finance program. The students are interested in continuing their interest in the fund as alumni.

While regional schools may not have the resources to have a traditional student-managed investment fund, the positives of the fund make it vital that finance programs consider adding one. By including all students and laying a sound framework, the fund is able to motivate students while compensating for the disinterested student. The student fund serves as a comprehensive assessment tool for the finance program. The overall benefits to the students and program in the form of experience, scholarships and alumni-building offset the risk of a bad stock pick.

Finally, the comprehensiveness inherent in a student-managed investment fund completes the circle of mission, learning objectives, assessment, and community outreach. All of this is accomplished in a framework of fiduciary responsibility, which promotes ethical behavior in the students.

REFERENCES

Angel, J. (1994). The Broker Game: An Enjoyable Way to Introduce Students to Financial Markets. *Financial Practice and Education*, 4(1), 61-5.

Bartlett, R. (1996). Discovering Diversity in Introductory Economics*.* *Journal of Economic Education*, 21(Spring), 141-53.

Bhattacharya, T. (1994). Cameron University's Unique Student-Managed Investment Portfolios. *Financial Practice and Education*, 4(1), 55-60.

Block, S. and D. French (1991). The student-managed investment fund: A special opportunity in learning. *Financial Practice & Education*, 1(1), 35-40.

Carlson, J. and D. Schodt (1995). Beyond the Lecture: Case Teaching and the Learning of Economic Theory. *Journal of Economic Education*, 26(Winter), 17-28.

Chatman, S. (2007). Institutional Versus Academic Discipline Measures of Student Experience: A Matter of Relative Validity. Accessed August 3, 2007 at http://cshe.berkeley.edu/publications/publications.php?id=263

Dolan, R.C. and J. L. Stevens (2006). Business conditions and economic analysis: An experiential learning program for economics students. *Journal of Economic Education*, 37(Fall), 395-405.

Epstein, J. (2007). Questioning College Wide Assessments. *Inside Higher Ed*, June 21, 2007. Accessed August 3, 2007 at http://www.insidehighered.com/news/2007/06/21/assessments.

Gardner, M. (1994). Teaching Financial Markets in a 'Financial Scandals' Course. *Financial Practice and Education*, 4(1), 67-72.

Iman, R. and W. Conover (1989). *Modern Business Statistics*, Second Edition. New York: John Wiley & Sons.

Jennings, W. P. and P. Jennings (2006). Domestic investment bias among student managed investment funds. *Investment Management and Financial Innovations*, 3(3), 155-59.

Johnson, D., J. Alexander, and G.H. Allen (1996) Student-managed investment funds: A comparison of alternative decision-making environments. *Financial Practice & Education*, 6(1), 97 – 201.

Kahl, D. (1997). The challenges and opportunities of student-managed investment funds at metropolitan universities. *Financial Services Review*, 6(3), 197-200.

Kolb, D. (1981). Learning Styles and Disciplinary Differences. *The Modern American College*. San Francisco: Jossey-Bass Publishers.

Lawrence, E. C. (1994). Financial Innovation: The case of student investment funds at United States universities. *Financial Practice and Education*, 4(1), 47-53.

McWilliams, V. (1994). Structuring the Finance Curriculum: A Survey. *Financial Practice and Education*, 4(1), 37-46.

National Survey of Student Engagement (2006). *Annual Report*. Accessed August 3, 2007 at http://nsse.iub.edu/NSSE_2006_Annual_Report/index.cfm.

Palmini, D. (1996). Using Rhetorical Cases to Teach Writing Skills and Enhance Economic Learning. *Journal of Economic Education*, 27 (Summer), 205-16.

Redle, D. A. and Calderon, T. G. (2005). Closing the Loop in Finance. *Assessment of Student Learning in Business Schools*. Tallahassee, Florida: AACSB, 227-38.

Walstad, W. (2001). Improving assessment in university economics. *Journal of Economic Education,* 32(Summer), 281-93.