LETTER FROM THE EDITOR .............................................. v

EXAMINING THE EFFICACY OF OFFERING SERVICE LEARNING FOR CREDIT WITH SIFE AND SBI: AN EXPLORATORY STUDY .................................................. 1
Harriet Buckman Stephenson, Seattle University

THE ROLE OF AFFECT AND EXPECTATIONS IN DISTANCE LEARNING: A PEDAGOGICAL EXAMINATION OF PERCEPTION AND COGNITION IN THE TELEVIDEO CLASSROOM ....................... 14
Sanford Kahn, University of Cincinnati
Thomas Osha, Cincinnati Bell Telephone

DEVELOPING THE ENTREPRENEURIAL SPIRIT ............................................. 18
Arthur K. Fischer, Pittsburg State University
June M. Freund, Pittsburg State University
Jane H. Crouch, Pittsburg State University

USING FREE ENTERPRISE THEMES TO PROMOTE LEARNING:
THE PARKIN EXPERIENCE .................................................. 26
Larry R. Dale, Arkansas State University

EDUCATING NATIVE AMERICANS ABOUT FREE ENTERPRISE ................. 33
Lisa F. Borstadt, Northern Arizona University
Ron S. Lee, Northern Arizona University
Sandra One Feather, Northern Arizona University

THE IMPACT OF CHILDREN'S THEATER ON THE COMPREHENSION OF FUNDAMENTAL ECONOMIC CONCEPTS ........................................... 41
Joyce Ann Shotick, Bradley University
LETTER FROM THE EDITOR

Robin Anderson

www.alliedacademies.org

Journal of Entrepreneurship Education, Volume 1, Number 1, 1997
EXAMINING THE EFFICACY OF OFFERING SERVICE LEARNING FOR CREDIT WITH SIFE AND SBI:
AN EXPLORATORY STUDY

Harriet Buckman Stephenson, Seattle University

ABSTRACT

This exploratory study examines the efficacy of offering a for-credit SIFE course that uses service learning based on the SBI type learning model. Student consultants and their clients in two different Policy/Strategy sections offered the same quarter by the same instructor in an accredited business school engaged dissimilar clients. The clients in one section had recently been through an entrepreneurial training program for low income/welfare recipients to encourage self-employment as a job creation model. These clients had developed business plans and started mostly one person businesses with few of the businesses being able to support the owner. The clients and the class represented service learning for credit. The other SBI Policy/Strategy control section used traditionally secured SBI established businesses most of which had employees and revenues that supported the owners. Though the clients were significantly different, the students’ perception of the value of the two courses were basically identical.

This exploratory story is particularly relevant to the debate going on nationally in academic circles of how to best handle service learning. As a volunteer activity, it is universally applauded. As a for-credit offering, there is less consensus, and frequently positions are taken without any solid, supporting research. SIFE is encouraging development of for-credit courses. This study looks at one model and demonstrates validity for the concept.

INTRODUCTION

The nineties have seen a growth in service learning in education for K through 12 to colleges, universities, and graduate schools. The evaluation studies are mixed in findings with the general consensus giving high marks to the potential of service experience as a learning model. Most service learning models are, however, used in extracurricular/ noncredit configurations. The Students in Free Enterprise (SIFE) program encourages formation of a class for credit to be offered at the collegiate level. SIFE participants engage in community service activities to promote the free enterprise system. A wide range of activities are represented such as tutoring grade schoolers in math skills, helping children start a micro business selling school supplies to their classmates. Some activities lend themselves to incorporation in existing classes. Specifically, the Small Business Institute (SBI) in-depth student consulting projects are especially well suited as SIFE projects and are well accepted
as for-credit offering. Would SBI type projects clearly designated as service learning targeted to low income, or otherwise economically challenged, for whom such efforts could help empower them to more fully participate in the free enterprise system, be able to hold the same claim to deserving of credit? Or, should that type of consulting project only be available as a not-for-credit offering? This paper presents a evaluation of a pilot study which offered a regular SBI class and a service learning SBI type class to examine the validity of offering credit for such service learning that specifically targets microenterprise, disadvantaged populations, populations not currently participating fully in the free enterprise system.

A model of service learning that gives credit with the project being a part of the learning curriculum is the Small Business Institute Program which by 1995 was in over 500 colleges and universities in the U.S. providing consulting to 6,000 small business owners by 18 to 20,000 graduate and undergraduate students a year. The SBI program was initially funded by the US SBA which ceased program funding in October 1995. At the time, the criteria for success of the program had gone from helping those in small business who could not afford private sector consultants but who were in dire need of help to producing consulting reports that could demonstrate increase in profits, revenues, and jobs created, probably more of a community based learning model than a service learning model per se. An evaluation of the SBI program clearly demonstrated it was successful by most any measure (Fontenot, 1994). Studies have looked at student satisfaction, client satisfaction, perceived impact on employment, revenues, skills enhancement of the national SBI program, of an individual SBI program, of the knowledge and skill differences between an SBI course and a “traditional” Business Policy course, and use of SBI for economic development. As universities respond to the increasing challenge of service learning, the SBI program may well lend itself particularly well to the task while providing an established learning methodology. However, the type of clients to select becomes an issue inasmuch as certain clients may be in a better position to show increase in revenues or employment than others, some could not afford a paid consultant but may not be viewed as viable enough for size of revenue, assets, or number of employees. Those criteria may be important if the funding agency being used to support the SBI program is looking for such hard data to get funding through Congress such as when the SBA used to fund the program. What criteria now will drive funding sources? Those criteria such as the role in economic development will still be important. The academic/learning community is concerned, regardless of the funding source, that it provides a valuable learning experience for the student and meets requirements of the courses in which the SBI type learning model is used. When criteria for client selection include those who cannot afford a paid consultant, those who need help but may not be in a position to grow in terms of employment, or others more clearly needing help, who will save the smallest of the microenterprises, what impact on student satisfaction and perceived education/learning value might there be? Could SIFE students help meet the need?

Is there a difference in student perception of value between service learning or community learning based on need of help to struggling microenterprises or start-ups and more established mainstream SBI cases. Instructors are faced with the reality, too, that it is highly unlikely that a one person, home-based operation barely scratching by is going to win

*Journal of Entrepreneurship Education, Volume 1, Number 1, 1997*
national SBI competition since it has not happened in the approximately 10 years that such competition has been going on. So how could such targeted service learning be encouraged?

This study is an exploratory evaluation of two different courses using SBI type projects as the teaching learning method the same quarter; same days of the week, with a morning and an afternoon class of graduating seniors. The classes were taught by the same instructor. In the morning class, the cases were typically one person microenterprises all coming from recent graduates of an inner city entrepreneurial training program in the Central Area designed to provide self-employment as a job creation model for low income persons in the Central Area. The cases for the afternoon class came from the broad range of resource providers, networking members, past SBI clients, past students, SBA, faculty, etc. Would there be differences in perception of the students or the clients between the two sections? Would the differences or similarities be sufficient to warrant giving credit for each experience?

BACKGROUND

Evaluation and assessment of community based consulting by students, specifically the SBI model, is a well documented though relatively recent phenomenon (Borstadt & Byron, 1993; Burr & Solomon, 1977; Chrisman, Nelson, Hoy, & Robinson, 1985; Douglas & Lamb, 1986; Fontenot, Haarhues, & Hoffman, 1991; Fry, 1985; Hedberg & Brennan, 1996; Jackson & Watts, 1995; Kiesner, 1987; Sampsell, 1984; Sapienza, Smith, & Gannon, 1988; Stephenson, 1995; Stephenson, Konarsi, & Phillips, 1991; Weaver & Solomon, 1985; Weinstein, 1990; Weinstein, Nicholls, & Seaton, 1992). Small Business Institute Directors track information on increase in sales, number of employees, wages, taxes revenues, and profitability. According to the July 1994 Small Business Institute Economic Impact Study (Fontenot, 1994), each of those factors is positively impacted by the SBI Program with SBI clients creating 10,697 net new jobs from 1991 to 1992 as a result of the SBI consulting they received, resulting in over $203 million in employee wages.

Borstadt and Byron (1993) study included evaluation of other factors such as the Personal Improvement category with 41.2% of the respondents noting they “Become better organized” and 29.4% noting they experienced “Personal improvement as a business person.” Thirty-eight percent noted “Improved understanding of market conditions for your products or services” and 23.5% “Obtained insights into public perception of your business.” The process consultation that is utilized in the SBI Program stresses client and students sharing in the problem definition and solving. It is a joint exploration process which enables the owner to be more of a self learner in the long run. Those learning aspects are difficult to measure for both the owner and the students. Some efforts have been made in developing models to explore broader dimensions of outcomes (Stephenson, 1995).

When the SBI program/method is added to a traditional policy course Watts and Jackson’s study (1995) concluded that the combined format met or exceeded the outcomes of the traditional Policy course (pp. 93-103). Fontenot et al. (1991) drew from a sample of 504 students across U.S. who had participated in the SBI program from 1974 to 1990. When comparing the capstone Policy course with the SBI course, the Policy course was perceived to
be somewhat more effective in developing analytical skills and to be somewhat more useful in their careers than the SBI course. For developing interpersonal skills and operational skills, the SBI course was perceived to be more effective than the Policy course.

A recent study by Hedberg and Brennan (1996) of 122 students responding to a survey reported positive views about the SBI experiences: “...it appears that students learn from their SBI project experiences, value its real world and applied focus, and recommend it be a required component of their education” (p. 32). One implication, however, was noted that “Good clients make a better SBI experience for the student.” Several of the students, had noted that better clients would be the most important way to improve their SBI experience. The authors admonish the instructor “to remember the goal of student learning when choosing clients to participate in SBI projects.”

Student learning in some increasing numbers of colleges and universities is including service learning which tends to have broader goals than meeting curriculum requirements for a course such as Business Policy/Strategy. It may be part of a senior synthesis course which has broad purposes. Service learning is a pedagogical tool with roots in traditional volunteerism, performing service or good work of own free will and without pay. Community-based learning is sometimes distinguished from service learning when it takes the form of internship and apprenticeships, travel abroad or study in another country. Peer-helping, which is similar, usually is separated from regular curricular subject areas and includes activities such as conflict mediation, peer and cross age tutoring, often begun or continued with state and federal funding. This might include the Vita programs and one might include SBI programs which may or may not be associated with credit. The SBI program in its initial practice by the SBA was close to service learning. Service learning is defined by the Commission on National and Community Service (CNCS, 1993) as:

A service learning program provides educational experiences:

a. under which students learn and develop through active participation in thoughtfully organized service experiences that meet actual community needs and that are coordinated in collaboration with school and community;

b. that are integrated into the students’ academic curriculum or provides structured time for a student to think, talk, or write about what the student did and saw during the actual service activity;

c. that provide a student with opportunities to use newly-acquired skills and knowledge in real-life situations in their own communities; and

d. that enhance what is taught in school by extending student learning beyond the classroom and into the community and helps to foster the development of a sense of caring for others (p. 15).

From the Wingspread Special Report by the Johnson Foundation (1989), “Service, combined with learning, adds value to each and transforms both. Those who serve and those
who are served are thus able to develop the informed judgment, imagination, and skills that lead to greater capacity to contribute to the common good" (p. 1).

Richard J. Kraft (1996) notes “The common good must reflect an empowering benefit for both partners in the service relationship” (p. 138). Further, "when they are carefully tied to curricular objectives, contain academic content, involve the student reflections, and contain an evaluative component, they can be considered service learning. If these components are missing, they fit more comfortably into community-based learning or volunteerism” (p. 140).

"Yet, service-learning programs emphasize the accomplishment of tasks which meet human needs in combination with conscious educational growth. They combine needed tasks in the community with intentional learning goals and with conscious reflection and critical analysis” (Kendall, 1990, p. 20).

Such an experience is highly valuable. Indeed, "for a student to effectively master problem identification, analysis, and solving in a way to be acted upon which deals with the messiness of what actually happens. . . results from linking business education and service learning " states Edward Zlotkowski (1996, p. 8). Zlotkowski, Director of the Bentley Service Learning Project involving 15 of Bentley’s 16 academic departments, over 50 faculty members, and over 2,000 students in its work, speaks from an experienced base vantage point.

In fact, several schools are incorporating a community-based experience as a mandatory part of MBA orientation. Further, “. . . it becomes clear that the time has come to begin developing a national network of business school educators able and willing to share both methods and results” (Zlotkowski, 1996, p. 14).

The Small Business Institute Directors’ Association (SBIDA) is such a national network with over 500 SBI “instructors” in over 500 colleges and universities in the U.S. performing service learning for credit. Names of SBI Directors and Programs can be accessed at:

http://www.sbaer.uca.edu/sbaer/databases/sbida/index.html

Syllabi are willingly shared. Training manuals are available. Students in Free Enterprise will also be an active source of information and networking for service learning for-credit and not-for-credit.

Research findings exist on effects of service learning on academic and values development. Service learning is an effective pedagogy for both intellectual and moral development (Markus, Howard, & King, 1993). At this point, the SBI program is utilized more as a community-based learning model depending on the objectives of the learning.

The SBI program is closest to a “pure” service learning model for credit when a reflective component is added. For example, at the university in which this study was performed, the Strategic Policy class is the senior synthesis course for the university as well as for the Business School. A senior synthesis paper requirement is expected which includes an analysis of the senior capstone experience. The students are also to address the issue in their in-class presentation of the project as to what they learned from doing the project.

Whether it is a pure service learning model or community based as a significant part of a curricular requirement for credit has several constituents to judge/evaluate its
effectiveness. The objectives/mission of the colleges and universities must be met, which increasingly includes providing a service component to enhance ethics/morals and community service/good citizen issues of the university. The AACSB must be satisfied. The knowledge content/curriculum must be met. The SBI program will be available to expand the service learning reach as schools determine their own criteria for client selection to include the possibilities of a much broader clientele base from which to select such as: start up businesses, struggling one person home based microenterprises, business owners on welfare, not for profit organizations, and individuals who haven’t and may not made/make a profit but who need help. What impact does the type of client (e.g., size of business, how badly it is struggling, no employees, earning below minimum wage, less than college education, or potentially other factors that a college student is less likely to identify with or possibly view as a contribution to ones own career path) have on the value of learning experience and other desired outcomes from such learning for credit? The question has been raised by earlier studies. Hedberg and Brennan (1996) are clear in the need to provide “better clients” to improve the SBI experience.

METHODOLOGY

Two senior capstone Business Strategy/Policy sections were offered in spring of 1991 by the same instructor, one class in the morning with 23 students and 11 Central Area clients, one class in the afternoon with 45 students taking 15 regular SBI clients. The class ended the first of June. In mid July a phone survey was made of all students who could be contacted who had been consultants in the two courses. Contact over a week of solicitations of students who were no longer on campus or even in the area for the most part, resulted in a lower than desired completion rate. The students graduated in June. Effort was made to be persistent enough to make contact with at least one student per team.

The same research person interviewed all the Central Area students and the Other afternoon class clients and students by phone. The staff of the agency provided phone interviews of the Central Area clients. Of the 11 Central Area clients that were surveyed there was 100% response. The students response rate was 13 out of 23 for a student response rate of 56%. For SBI clients, there were 9 out of 15 who responded for a 60% response rate. Of the 45 SBI students surveyed, 16 responded for a response rate of 36%. The response rate was thus higher for both the Central Area clients (100%) than for the SBI clients (60%) and higher for the Central Area students (56%) than for the SBI students (36%). It was not known if the students were themselves different between the two sections. The students appeared to select the morning class (7:45 AM) or afternoon (1:00 PM) based on how it fit into schedules and dislike or like of early morning classes. The students knew that the instructor used the SBI type learning method for both classes. All students graduating that spring had to take the course for graduation if they had not previously taken it. The students were not aware till attending the first day of class that there would be a specific group of cases for the morning class which would differ from the “typical SBI case.”
The experimental Central Area group differed significantly from the SBI client control group in ethnic background, education level, and number of employees. Ten out of 11 of the Central Area sample were African-American, one out of 9 of the SBI sample were African-American. Two out of 11 (18%) were college graduates from Central Area sample, whereas 6 out of 9 or 66% of the SBI clients were college graduates. Eight out of 11 Central Area had no employees, only one out of 9 of the SBI had none.

FINDINGS

The survey results for clients and for students are displayed in Table 1. There were a number of significant areas of differences which the study revealed.
Table 1

1. How satisfied were you with the business plan or feasibility study conducted by the students for your business? Conducted by you for your client? Extremely dissatisfied = 0, Extremely satisfied = 10

|                  | Central Area | SBI | F Probability |
|------------------|--------------|-----|---------------|
| Students         | 8.16         | 6.87| * .0313 significant |
| Clients          | 8.36         | 6.66| .120          |

2. How important was the written report to you (to your client) in developing marketing strategies for his/her business? Very important = 1, Important = 2, Somewhat important = 3, Unimportant = 4

|                  | Central Area | SBI | F Probability |
|------------------|--------------|-----|---------------|
| Students         | 1.85         | 2.19| .39           |
|Clients           | 1.72         | 2.67| * .0408 significant |

3. Perception of attributes of consultants/students (0 = low, 5 = high)
   a. Professionalism

|                  | Central Area | SBI | F Probability |
|------------------|--------------|-----|---------------|
| Clients          | 4.7          | 4.4 | .3054         |
| Students         | 3.07         | 4.06| * .0220 significant |

   b. Business Knowledge (Rating of Client by Students and Students by Clients)

|                  | Central Area Students | SBI Students | F Probability |
|------------------|-----------------------|--------------|---------------|
| Students         | 2.7                   | 3.6          | * .0142 significant |
| Clients          | 4.3                   | 3.1          | * .0040 significant |

   c. Perceived ability of the client to see applicability of recommendations by students.

|                  | Central Area Students | SBI Students | F Probability |
|------------------|-----------------------|--------------|---------------|
| Students         | 3.76                  | 3.62         | .75           |

   d. Perceived practicability of recommendations by clients

|                  | Central Area Clients | SBI Clients | F Probability |
|------------------|----------------------|-------------|---------------|
| Students         | 4.6                  | 3.6         | * .0025 significant |

   e. Open mind of client

|                  | Central Area Students | SBI Students | F Probability |
|------------------|-----------------------|--------------|---------------|
| Students         | 4.23                  | 3.7          | .25           |

   f. Overall value of analysis

|                  | Central Area Clients | SBI Clients | F Probability |
|------------------|----------------------|-------------|---------------|
| Students         | 4.36                 | 3.2         | * .02 significant |

4. How beneficial was the program using university students as marketing consultants to your firm? (4 = Not Beneficial, 1 = Very Beneficial)

|                  | Central Area Clients (11) | SBI Clients (8) |
|------------------|---------------------------|-----------------|
| Very Beneficial  | 4 (36%)                   | 1 (12%)         |
5. How beneficial to your educational process was the program using student consultants (student question)/beneficial to you of the overall process (clients)?

|                      | Central Area Students (13) | SBI Students (15) | F Probability |
|----------------------|----------------------------|-------------------|---------------|
| Very Beneficial      | 6 (46%)                    | 8 (53%)           |               |
| Beneficial           | 2 (15.4%)                  | 7 (47%)           |               |
| Somewhat Beneficial  | 4 (31%)                    |                   |               |
| Not Beneficial       | 1 (8%)                     |                   |               |
| Mean                 | 2.0                        | 1.5               | .1003         |

6. If you had to value the course, using scale of 1 to 10 with 10 being highest:

|                      | Central Area Students     | SBI Students      | F Probability |
|----------------------|---------------------------|-------------------|---------------|
|                      | 8.1538                    | 8.1563            | .9964         |

The data in Table 1 show that there was a significant difference in student satisfaction with the students who had Central Area clients being more satisfied with the plan/study they did than were the SBI students. Clientwise, the Central Area clients were more satisfied with what was done for them than were the SBI clients, but the difference was not significant.

The Central Area students with Central Area clients felt the report was more important to the client in developing marketing strategies than did the other students. The difference was not significant. The Central Area clients also felt the report was more important in developing marketing strategies than did the SBI clients. The difference was significant.

The Central Area and SBI clients tended to rate the students similarly in professionalism whereas the students rated the perceived professionalism of the clients as significantly different with the mean of the Central Area students being a point lower. The SBI students tended to rate their client significantly higher on business knowledge than the Central Area students rated their clients. The Central Area clients, however, rated the student consultants’ business knowledge significantly higher than the SBI clients rated their student consultants.

The mean of perceived ability of clients to see applicability of recommendations was very close by both the Central Area students and the SBI students. Looking at the client’s
perception of how practical the student recommendations were, the Central Area clients mean on the rating was a point higher than the perception of the SBI clients on their student consultants perceived practicality of recommendations. The difference was significant.

The mean perceived open mindedness of client by the Central Area student of their clients was higher by about half a point (not a significant difference) than the SBI students perceptions of their clients. The Central Area clients rated the overall value of the analysis over a point higher than the perceived value of overall analysis by SBI clients. Thirty-six percent (4 out of 11) of the Central Area clients thought the program using university students as marketing consultants very beneficial to the firm compared with 12% or 1 out of 8 responding to this question by the SBI clients although 87% of the SBI clients responded very beneficial and/or beneficial compared with 63% of the Central Area clients.

One hundred percent of the SBI students responding rated the benefit to the educational process at Beneficial or Very Beneficial whereas 61% of the Central Area students rated it as Beneficial or Very Beneficial. In terms of perceived benefit overall to the clients of the consulting process, though a greater percentage of the Central Area clients 45% rated it Very Beneficial compared with SBI clients at 22% (2/9), when both “Beneficial” and “Very Beneficial” are added it is quite close with 73% for the Central Area clients and 67% for the SBI clients. When valuing the Business Policy course as they experienced it, the Central Area students and the SBI students were very close in their ratings with the means being within .03 points of each other, an insignificant difference.

### SUMMARY AND FINDINGS

In summary, there were significant differences in Central Area service learning student consultants and student consultants that took “regular” SBI type clients:

| Central Area students were more satisfied than the SBI students with the product they delivered; |
| Central Area students rated their clients at a perceived lower level of professionalism compared with SBI students assessments of their clients; |
| The perceived business knowledge of Central Area student rating of their clients was almost a point lower than the 3.6 mean rating given the SBI clients; |
| The importance of the written report in developing marketing strategy was more important to the Central Area clients; |
| The Central Area clients rated the students as being more knowledgeable than the SBI clients rated their student consultants; |
| The Central Area clients thought the recommendations were more practical than did the SBI clients; and |
| The Central Area clients rated the overall value of analysis higher. |

These findings overall for both the SBI control and the service learning/Central Area experimental are similar to Weinstein’s (1990) findings: For client satisfaction on a 10 point scale there was a mean of 6.88 which compares at 6.66 with the SBI clients in this study and 8.36 by the Central Area clients. Four out of five Weinstein’s clients found the report useful for developing marketing strategies for their business. All of the Central Area clients thought
it was anywhere from somewhat important to very important as did 7 out of 9 of the SBI clients, with 2 out of 9 saying it was important.

| Student Characteristics               | Weinstein Study | This Study    |
|--------------------------------------|-----------------|---------------|
| Clients rated students professionalism| 4.05            | Central Area Clients 4.7 |
|                                      | SBI Clients 4.4 |
| Business Knowledge                    | 3.43            | Central Area Clients 4.3 |
|                                      | SBI Clients 3.1 |
| Practicality of Recommendations       | 3.44            | Central Area Clients 4.6 |
|                                      | SBI Clients 3.6 |
| SBI Program of Some Benefit           | 93%             | Central Area Clients 100% |
|                                      | SBI Clients 100%|
| Years of Education of Entrepreneur    | 60% college graduate | Central Area Clients 18% |
|                                      | SBI Clients 66% |
| Age: 25-39                           | 53%             | Central Area Clients 91% |
|                                      | SBI Clients 56% |

The non-response bias may account for some of the differences that were found. It may be that only certain majors were represented in the student population. Fontenot et al. (1991) noted that marketing majors found the SBI course especially beneficial in utilizing or developing their Interpersonal Skills. CIS and marketing find the SBI course to be more useful in their careers than did other majors. The clients who were contacted may not necessarily represent even all the SBI clients for the quarter much less for years. The Central Area clients were surveyed by a Central Area program staff member. Did that influence the answers? Did the Central Area clients want to not seem ungrateful? Did the differences in data solicitor account for some of the differences? The Entrepreneurship Center research person surveying the students also surveyed the SBI clients. The students in the morning class may have been different from the afternoon students. Fewer students were in the class. Yet, from this exploratory study, we can say that at least of the clients responding they did differ significantly in some characteristics. The Central Area population represented non-tradition/service learning clients and the SBI clients being quite similar at least to those in another SBI program. These characteristics with this particular sampling of student respondents seemed to have little if any impact on student perception of worth of the classes with perception of value of classes in both cases to be quite high.

The client population of the Central Area differed in several aspects from the “usual” SBI client in this study control group in ethnicity, age, education, and number of employees. The SBI program nationally averaged over 10 employees (Fontenot, 1994), most of the Central Area sample had no employees. Though the Central Area students rated their clients as being less professional with less business knowledge, the Central Area student consultants were more satisfied with the business plan they did for the client than the student consultants of SBI.
("regular") clients were. And in response to “If you had to value the Business Policy course using a scale of 1 to 10 with 10 being highest, the means were 8.15 for the Central Area students and 8.18 for the SBI students.

This study did not begin to scratch the surface of the full range of benefits from a SIFE course for credit that uses the SBI format. Obviously there are considerable skill building opportunities as well as team building and communication and value issues which are integral parts of SIFE which the SBI supports. The focus was to explore the service learning outcomes.

This exploratory study does support a contention that a service learning focus for the SBI programs could very profitably meet the needs as one of the for-credit contents of a SIFE designed course. This could meet many constituent needs effectively while enhancing a contribution to the community. Further, it would successfully enhance the student learning process while promoting and enhancing participation in the free enterprise system.

REFERENCES

Borstad, L., & Byron, A. (1993). The impact of student consulting programs on decision making, operations and financial performance of small business. Proceedings, 1993 SBIDA, San Diego, 90-95.

Burr, P. L., & Solomon, G. T. (1977, April). The SBI program: Four years down the academic road. Journal of Small Business Management, 1-8.

Chrisman, J., Nelson, R., Hoy, F., & Robinson, R. (1985, July). The impact of SBDC consulting activities. Journal of Small Business Management, 1-12.

Commission on National and Community Service. (1993). What you can do for your country. Washington, DC: Government Printing Office.

Douglas, M. E., & Lamb, S. W. (1986). Student counselor satisfaction with the SBI program: A national survey. Small Business Institute Directors’ Association National Proceedings, 391-401.

Fontenot, G. (1994, July). Small Business Institute economic impact study: 1990-1993.

Fontenot, G., Haarhues, M. H., & Hoffman, L. (1991, February). The benefits of the SBI program: Perceptions of former students. Journal of Small Business Strategy, 2(1), 56-71.

Fry, F. L. (1985). The determinants of successful SBI projects from the academic perspective. Small Business Institute Directors’ Association National Proceedings, 32-37.

Hedberg, P. R., & Brennan, D. P. (1996). The SBI experience from the students’ perspective: Implications for student learning. SBIDA 1996 Proceedings, San Diego, 29-33.

Jackson, W. T., & Watts, L. R. (1995, Spring). The SBI program and student outcomes: A study of business policy classes. Journal of Small Business Strategy, 6(1), 93-103.

Johnson Foundation. (1989). Wingspread special report: Principles of good practice for combining service and learning. Racine, WI: Author.

Kendall, J. C. (1990). Combining service and learning: An introduction. In J. C. Kendall & Associates (Eds.), Combining service and learning: A resource book for community and
public service (pp. 1-33). Raleigh, NC: National Society for Internships and Experiential Education.

Kiesner, W. F. (1987). A study of SBI client satisfaction levels. Small Business Institute Directors’ Association National Proceedings, 271-276.

Kraft, R. J. (1996, February). Service learning: An introduction to its theory, practice, and effects. Education and Urban Society, 28(2), 131-159.

Markus, G., Howard, J., & King, D. (1993). Integrating community service and classroom instruction enhances learning: Results from an experiment. Educational Evaluation and Policy Analysis, 15(4), 410-419.

Sampsell, M. (1984). An evaluation of one SBI program by the small business owners. Small Business Institute Directors’ Association National Proceedings, 102-108.

Sapienza, H. J., Smith, K. G., & Gannon, M. (1988, Winter). Using subjective evaluations of organizational performance in small business research. American Journal of Small Business, 45-53.

Stephenson, H. B. (1995). Assessing value added of experiential client based entrepreneurial education. The Project for Excellence in Entrepreneurial Education Proceedings, 3.

Stephenson, H. B., Konarski, E. L., & Phillips, D. (1991). Evaluating an SBI’s real contribution to small business assistance—A case study. Small Business Institute Directors’ Association National Proceedings, 319-327.

Weaver, K. M., & Solomon, G. (1985). A review of the Small Business Institute Evaluation Project for the period 1981-1984. Small Business Institute Directors’ Association National Proceedings, 67-74.

Weinstein, A. (1990). Students as marketing consultants: A methodological framework and client evaluation of the Small Business Institute. Small Business Institute Directors’ Association Proceedings, 122-128.

Weinstein, A., Nicholls, J. A. F., & Seaton, B. (1992, October). An evaluation of SBI marketing consulting: The entrepreneur’s perspective. Journal of Small Business Management, 62-71.

Zlotkowski, E. (1996, January). Opportunity for all: Linking service-learning and business education. Journal of Business Ethics, 15(1), 5-19.
ABSTRACT

The purpose of this paper is to develop, from a cognitive perspective, a didactical theorem in which an interdisciplinary communications strategy is an integral component of a distance learning paradigm. The study will explore the role of affect and student expectations as a measure of the success of a distance learning televideo course environment. Based on the authors’ experiences in both a traditional and a distance learning televideo classroom, the paper will argue that, despite the power of television in the information society, psychological and physical involvement in the learning process, without regard to the abstraction of location, remains the keystone of student success. It will conclude that the absence of the classroom and lecturer’s stimuli affects cognitive appraisal of the distant learning experience requiring a behavioral distant learning pedagogy that embraces nonverbal clues such as semiotics, music, facial clues, sound effects, gestures, humor, and gender.

INTRODUCTION

There comes a time in evolution where technological progress diminishes, giving way to social and cultural innovation. Today’s students are the first generation to carry, as a part of their educational DNA, a preconceived notion of what a television or video broadcast should “look” like. Raised in the cacophony of mass media, education for our students has not been limited to the traditions of the classroom, textbook, and lecturer; abstraction from the source of information does not inhibit their ability to assimilate and disseminate factual data. Television is, for them, not high technology; it is their culture. From childhood to adolescence and into adulthood, television has been the most significant aspect of their learning experience. Whether it is Sesame Street or the intricacies of space exploration, with television, cable networks, video recorders, video games, personal computers, and the World Wide Web, they have lived, as no other generation has lived, in the world of instant gratification-real time learning. For them, the symbiosis of education and technology is not an exciting alternative to the traditional classroom challenge; it is an intrinsic part of their cognitive modality.

Jos Luis. L. Aranguren (1985), in his book The Human Communication argues:
"It seems then without doubt that the solemn distribution of knowledge by the professor and the intellectual submission of the students to the behavioral rules dictated to them, are activities turning to be more difficult to maintain in the present structure. The students are requesting that their expectations, interests, aspirations and subculture be taken into consideration by the establishment. When the professors have the capability to be aware to those claims and the students are allowed to have an active participation by submitting their ideas, then the educational process turns into a two way communication."

Despite their affection for the multi-media culture, our students remain culturally socialized in the stereotypical formal classroom. They come with expectations about established classroom demeanor and etiquette. They understand, implicitly, the behavioral structure and relationships between students, faculty and class. The televideo classroom replaces these traditions, for the instructor and student, with uncertainties about classroom socialization. The conventional faculty-student relationship often becomes subservient to the technology of the distant learning process. Even with full motion, two-way reception, at best students and faculty can interact only as if they were sitting on opposite sides of a window, making it even more important for faculty to examine their interpersonal techniques in the distant learning perspective. The confidence of students among their peers in a conventional classroom becomes the fear of seeing their image on a television screen and the realization that their responses go beyond the limits of the classroom door in interactive televideo sessions.

Satiated by their multi-media world, our students expect that television images, whatever their source, are going to contain familiar communication elements. They are, if not overtly, subliminally conditioned to the visual and auditory stimuli that conforms to their preconceived notions of commercial television. While educators experiment with the “new technology,” our students recognize, with immediacy, the lack of production professionalism endemic to even a simplistic music video. The reality is that our students spend more time in their video civilization than they do in classroom and leisure activities; they do not distinguish between recreational and educational television broadcasting. Details such as graphic layout, color, and organization, must be conducted according to recognized professional broadcast industry standards. Nonverbal codes are inherent to their culture; they expect vivid images, exhilarating action, and stirring music, not as an afterthought, but as a carefully planned part of their televideo learning experience.

Spontaneous decisions about course content and methods of presentation, must be replaced by in-depth planning and adherence to a precise schedule of lecture content and presentation. The ultimate success of a course is a function of its design, delivery and implementation, not the sophistication of the equipment and facilities. Merely transporting course pedagogy to a new medium disregards innovative pedagogical models and instructional designs that can take advantage of every student’s ability to process multiple stimuli in a cognitive learning environment.
What is simple in the physical classroom becomes difficult and time consuming when used in a televideo presentation. Unlike the classroom lecture in which the message is coded in words and perhaps role playing by the lecturer, the televideo classroom provides for an extension of the messages codification through the use of an infinite variety of visual stimuli. Lectures must be segmented in a manner similar to that of a recreational television program. Blank screens or pauses to make a thought are unacceptable. Time spent to have materials distributed or to otherwise interact with students is no longer an option; dead air time is an unnatural and costly use of the video technology. The integration of handwritten materials and overhead projections into the televideo lecture is of limited effect in a carefully orchestrated broadcast. The virtual classroom allows only one view at any given time; images and written materials are not available through the entirety of the class as they might be when presented on a blackboard, chart, or overhead projection. Written or projected materials leave the screen when the lecturer’s image is returned. The smaller focal plane and unidimensionality of a television screen combined with the limited fidelity of its audio system diminishes the impact of these traditional teaching techniques. A rapidly changing input in the format of different camera angles, the use of closeups, supers, and dissolves, graphic imagery and multiple camera views have a significance in the success of the broadcast; they are a prerequisite to maintaining student interest and involvement in the video classroom.

The success of the video classroom is in establishing a small screen presence. In a conventional classroom, instructors are able to vary, emphasize, and punctuate their presentations through the use of voice fluctuation, physical movement, the ambiance of the classroom itself, and an interpersonal, often one-on-one contact with the students; in a televideo environment these techniques, are less effective. Physical movement, dress style, and vocalization take on a new importance in a television production. Faculty must be even more cognizant of their behavioral impact on the learning environment. Gestures such as the waving of one’s arms, pounding on a podium, pointing and fumbling with lecture notes which are commonplace in the classroom become distractions and annoyances in a televideo presentation. The rise of an eyebrow, the wrinkle of a forehead, a smile, a squint, a frown, or a fixed gaze toward the audience, moves from the minuscule in a large classroom to exaggerated importance in a close-up on a television screen.

Student satisfaction appears to be directly related to the development of effective televideo course techniques. A study conducted by the United States Department of Commerce’s Office of Technology Assessment (1995) concluded that:

“...simply placing technology into the classroom is not enough. Technology is related to increases in student performance when interactivity and other important features of instructional design are applied to its use.”

Butte-Glenn Community College, in association with the Satellite Telecommunications Educational Programming Network, a division of Educational Service District 101 in Spokane, Washington, has developed more sophisticated televideo course techniques and implemented
them in its distance learning program. The improved courses experienced increases in student satisfaction (1996).

THE UNIVERSITY OF CINCINNAT EXPERIENCE

At the University of Cincinnati’s Clermont College, a course in televideo technology was originally offered on traditional lecture only basis. Four years ago the course was expanded to include, through the collaborative efforts of the Cincinnati Bell Telephone Company, a televideo option using television to do little more than transmit the off campus instructor’s image and voice to the students. Student satisfaction surveys and test scores in both the lecture class sections and in those offered in video format were equal.

Today, the course has been redesigned to take advantage of the latest in fully interactive and two-way televideo technology to deliver, not only the required instructional materials, but to assure that the course brings to students a variety of outside resources that are important to broadening the course’s scope and content. During the first session of each twice-weekly class meeting, a representative from Cincinnati Bell Telephone Company anchors or hosts different experts in a discussion of the week’s telecommunications topic. These presentations are designed to be sensory stimulating without compromising the integrity of the learning process. During the second weekly class meeting, the students meet with the course’s instructor to conduct exercises and discussions which reinforce and enhance the topics covered by the telecommunications professional.

RESULTS OF THE PROGRAM

The collaborative effort has produced markedly higher student satisfaction survey results, as might be expected. Perhaps more surprising, test scores in the televideo course sections are significantly higher than those of the campus-bound course. Clearly, a well designed and implemented televideo course can be an effective educational tool, as demonstrated by the results at the University of Cincinnati.

REFERENCES

Aranguren, J.L. (1985). The Human Communication. Ediciones Guadarrama.

Butte-Glenn Community College District. (May 30, 1996). Distance Learning Report.

United States Department of Commerce. (1995). Office of Technology Assessment.
DEVELOPING THE ENTREPRENEURIAL SPIRIT

Arthur K. Fischer, Pittsburg State University
June M. Freund, Pittsburg State University
Jane H. Crouch, Pittsburg State University

ABSTRACT

This paper reports on a very successful program designed to develop an entrepreneurial spirit among kindergarten through twelfth grade students. As a byproduct of this process, university students gained considerable experience in researching and teaching entrepreneurial concepts and skills.

INTRODUCTION

Members of the Pittsburg State University chapter of Students In Free Enterprise (SIFE) are dedicated to the cultivation of the entrepreneurial spirit, and are committed to fostering better understanding of how the free enterprise system works. To this end they established the Free Enterprise Foundation, primarily with profits from chapter projects and funding from local entrepreneurs. They also received a grant from the Pritchett Trust, a local trust fund established to help finance worthy projects in the Pittsburg community, especially projects which help youth and their families. Through this Free Enterprise Foundation, PSU SIFE awarded grants to assist teachers in Crawford County school districts in purchasing equipment and supplies needed for projects which incorporate free enterprise educational concepts into the classroom.

Early in the 1995-96 school year, teachers were encouraged to apply for funding for projects which met one of the following goals:

- to encourage students to engage in entrepreneurial or business activities in school or in the community
- to enhance the teaching of business and economics in the classroom
- to prepare students for careers in the twenty-first century

Response from local teachers was enthusiastic, and the projects they proposed provided a variety of opportunities for students of all ages to benefit from free enterprise and economic education enrichment activities. After evaluating the applications, SIFE distributed $16,500 through the Foundation to 32 teachers in 12 schools and 4 school districts. Awards ranged in
size from $250 to buy supplies for a Character Counts program in one school to $1000 grants of seed money for starting school supply stores.

In addition to promoting the traditional free enterprise economic educational concepts, four of the grant recipients were asked to incorporate the teaching of business ethics into their projects. Students and teachers involved in each of these four projects selected a local entrepreneur or business executive whom they most admired. They were invited to share with the students information about their personal background, their business beginnings, their current business activities, the ethical standards they maintain and their thoughts regarding the social responsibility of a business. After further conversations with their entrepreneur, students were to start a business using him or her as a business role model.

After completion of the projects, narratives were submitted for national judging as part of the Students In Free Enterprise/Rubbermaid "Good Business is Good Business" competition. The Free Enterprise Foundation was the subject of four news stories on local CBS, NBC, and ABC affiliates. The foundation was featured in six newspaper articles including a full page donated by the Pittsburg Morning Sun to list the grant recipients.

AWARD WINNING PROJECTS

Teachers who participated in these projects are enthusiastic supporters of the program and have demonstrated what can be done when they apply their creative talents to teaching basic economic and ethical concepts in the classroom. The four projects selected for first place by the national competition judges are outlined on the following pages. They show just what can be accomplished.

It might appear at first glance that this program merely placed an additional burden on the already overloaded teachers, asking them to do one more thing and add one more subject to their already crowded schedule, but this is not the case. The projects did require teachers to spend a considerable amount of time planning, implementing and evaluating, but this was time well spent since the projects had benefits much broader in scope than one might initially think. While the projects emphasized some aspect of free enterprise and economic education, they also proved to be valuable avenues for teaching basic skills such as mathematics and reading, providing opportunities for students to apply those basic skills, enriching academic subjects, encouraging student creativity, developing critical thinking skills, emphasizing the importance of integrity, self respect, teamwork and cooperation. In addition, the projects provided opportunities for active rather than passive learning, and involved the students in cooperative as well as collaborative learning activities.

While contributing to the learning environment for children, these projects moved the local schools closer to achieving the 8 National Educational Goals established by the National Educational goals panel. The achievement to these goals depends primarily on efforts at the state and local community levels. All four projects were interesting for students and got them actively involved in the learning process, a necessary ingredient for keeping students in school. The Pittsburg High School project was specifically designed to involve “at risk” students (goal 2). All four projects involved the practical use of math skills, with the Eugene Field project...
specifically designed to emphasize math skills (goal 5). All four projects, by design, emphasized citizenship. The mentors specifically stressed the ethical qualities, integrity as a person and as an entrepreneur, and social responsibility. All four projects also taught students how to do practical, productive things. Some, such as the Middle School production project and the Hobby Horse industry taught specific skills while they all taught economic concepts of free enterprise which help them develop into productive citizens (goal 3). Profits from the Eugene Field project were used to fund a Drug Education Assembly which benefited the entire school (goal 7).

The four business speakers gave credit to business ethics, honesty, and social responsibility for their successes in business. Thus, the PSU SIFE students were able to provide fifth graders examples of what ethical behavior is all about. Many agreed that this will stay with those students throughout their school years and as they go to work for themselves. A very important dimension which was voiced independently by the four speakers was that there is a short-run and there is a long-run. There is the “now” and there is the “future”. They noted that it is important to keep your word today although there might be some cost involved in the future. But most often in the long-run being honest pays big dividends.

Several of the speakers talked about being open and friendly to customers. In each case customer relations turned out to be an important ingredient to the entrepreneur’s success. Another point which came up often was the idea of being active in the local community. To be a community leader in a non-for-profit environment turned out to be a way to succeed in for-profit business. This is something that is so important for the students to learn as fifth graders. Even at the university level faculty have difficulty teaching students the importance of community service. These entrepreneurs were able to make a direct connection between being an active member of the community and a respected community leader, and the successful and profitable discharging of their duties as administrators and entrepreneurs. It is easy to see that the SIFE students designed projects which were incredibly productive in getting across concepts which are quite difficult to get across to students at an early age or educational level.
Sandy Overman  
Lakeside Elementary  
“Hobby Horse Industry”

The fourth grade students at Lakeside elementary are getting their first experience in the business world as participants in the Hobby Horse Industry. They began this activity by filling out a job application and actually interviewing with a local human resource manager to fill positions such as supervisor, woodcutters, sanders, and drillers. A mini-manufacturing plant was created in the classroom, as the students used real power tools to produce 20 four foot tall wooden horses. Proceeds from the sale were donated to the local Salvation Army. An emphasis was placed on having the students learn the value of teamwork and how to delegate authority and duties. It is particularly valuable to develop these skills in budding entrepreneurs at an early age.

The person Ms. Overman’s class most admired and invited to speak to their class was Judy Westhoff from City National Bank of Pittsburg. Ms. Westhoff started as a teller 35 years ago and has consistently worked her way up to Senior Vice President. Judy is also a very active member of the community and a respected leader. The concept of ethics and social responsibility had not been discussed in great detail with the class prior to the speaker, but it soon became evident that the students were quick learners. Her speech was presented on a fifth grade level, and her use of anecdotal material helped to illustrate how ethics are a part of every day business.

Several students asked Ms. Westhoff what kinds of ethical situations she faced at work and how she solved them. She related that one area where ethics and social responsibility become apparent is in the approval of large loans. She noted that it is important to be both unbiased and fair in providing money for large projects.
Phil Carter  
Eugene Field Elementary  
“Eugene Field School Supply Store”

At Eugene Field Elementary, Phil Carter’s fifth grade students planned the advertising and financing programs, and set up the operation of their own store. The store sold items such as paper, pencils and pens. These amazing students then decided to reinvest their profits into a major drug awareness program for the rest of their school.

The students were tested before and after the project and test results showed an overall improvement of the students understanding of basic entrepreneurial terminology and practices. The pre-test showed most students had little or no knowledge of the terms being tested. The post test showed more than a 50 % increase in most students scores. Students were also required to keep inventory and maintain sales records daily. The results of the pre and post test scores are shown below.

![Pre & Post Test Scores for School Supply Store](image)

This group of students chose Garren Shaw to come and speak to their class about ethics. Mr. Shaw is co-owner of a local record store which has outlets in three other cities. He got his start in business as a college student when he and a friend would travel to record shows to buy and sell records. From those early experiences of dealing from the back of a pickup truck to the evolution of having four stores, it’s easy to see how he could relate the qualities needed to be a successful entrepreneur. Mr. Shaw’s classroom speech stressed the importance of understanding customer relations and being active in the local community. He incorporated some of his past experiences into his speech, and showed how each was handled. He was careful to explain that some things done ethically have more far reaching effects than are apparent at the moment they occur.
The students at Pittsburg Middle School have used the grant money to go into the mass production business. After dividing into management and union teams, students negotiated a production contract with a local manufacturing firm, PITSCO. A production plant was built in Tom Zerr’s Technology classroom where students assembled and packaged 2000 rocket kits. The class was paid $0.33 a kit and received a bonus for having a zero defect rate.

The students in Mr. Zerr’s class voted to have Dr. Harvey Dean be their guest speaker. He is the founder and CEO of PITSCO Inc., and was a top ten finalist for INC. magazine’s entrepreneur of the year. His company is one of America’s leading producers of technical and science education materials. PITSCO has been very instrumental in getting educational labs set up at Pittsburg Middle School as well as other school districts in the area. At the beginning of his speech, Dr. Dean placed the class in a dilemma by showing how ethics exist in the business world. The dilemma consisted of getting too much change back from a store and discussed how people often react in such situations. He used this example to show how ethics are hard to describe and can be a double standard. He felt that ethics came from one’s internalized values and that being honest was a large part of what he does to stay ethical. He encouraged the children to not give into peer pressure when making decisions, and do their best to make what they felt was the right decision. He also encouraged them to always keep their word. Although such a practice may cause them to lose money now, it will almost always pay large dividends in the future. The final point Dr. Dean made was that when you make the ethical choice you will always feel better about yourself in the long run.
Pittsburg High School's “Pitt High Supply” store was established through the cooperation of the school's choral director, Susan Laushman, and her vocal students in conjunction with Linda Garrow and her marketing education DECA students. The goal of Pitt High Supply was to provide the high school students, faculty, administrators and support staff with a large selection of school supplies and snack products at competitive prices. Profits from the business were used to pay expenses for vocal students to attend choral competitions and for marketing education students to attend the DECA competition.

Profit was not the only reward for these student entrepreneurs, for they gained valuable business experience through their participation in this “retail laboratory”. Just as any entrepreneur should, they planned and set goals, surveyed their target market, negotiated contracts, located suppliers, developed an advertising campaign, scheduled employees work schedules, and kept accurate records. They also learned some valuable lessons from their chosen entrepreneur mentor.

Mark Fincher, owner of the successful Studio 1 photography business, was selected by the students because of the quality photography work he does with the local schools and because of his dedication to his work. As he told his entrepreneurial story he stressed the importance of long hours of work and the developing of a good relationship with customers but above all he emphasized honesty, the most important ingredient to a successful business.
OUTCOMES FOR SIFE MEMBERS

While the goals of the Free Enterprise Foundation grants are focused on kindergarten through high school students, one must not overlook the benefits which the SIFE students themselves received from participating in the program. This was a learning experience for them just as it was for the younger students. It furthered their understanding of entrepreneurship and the free enterprise system while as they developed skills which will benefit them in their chosen careers and throughout their productive lives.

SIFE students were responsible for developing, implementing, overseeing and evaluating this entire program, tasks which required them to be creative, to be focused, to set goals, and to engage in careful planning. As they worked with local businesses and entrepreneurs they honed their communication skills as well as their skills of persuasion. They sold their ideas and encouraged the executives to participate in the program as mentors, as advisors, and as contributors to the Foundation which funds the grants. They also learned the importance of teamwork and cooperation among members of their own group, but more importantly practiced cooperation among all the constituents involved in the projects (teachers, students, community leaders, business mentors, PSU advisors and involved parents).

Through this interaction with local businesses, the SIFE students came to better understand the qualities which a successful entrepreneur must possess. They learned the importance of having productive skills, of understanding how the free enterprise system is organized, the value of hard work, and the importance of a good education. More importantly, SIFE students came to understand and appreciate some of the inner qualities necessary in the development of an entrepreneur, qualities such as integrity, honesty, a sense of fairness, and the importance of returning something to the community which supports the entrepreneur. Perhaps the greatest reward SIFE students received from this project was the knowledge that they had become involved in the lives of young children and had made a major difference in their future lives. They learned that Good Business is Good Business.
USING FREE ENTERPRISE THEMES TO PROMOTE LEARNING: THE PARKIN EXPERIENCE

Larry R. Dale, Arkansas State University

ABSTRACT

The Arkansas State University Students in Free Enterprise [SIFE] team helped teachers in two Mississippi River delta towns develop, implement and test an innovative supplemental program in free enterprise that used business and agriculture themes to generate excitement for learning and success in school. Students in the districts were 83% African-American, with almost half of the people living well below the poverty line in one of the ten poorest counties in America. The most critical educational obstacle facing the children was a mastery of the basics: reading, writing, grammar and mathematics. Our SIFE team, with the financial backing of the Arkansas Farm Bureau, developed a series of innovative materials for grades kindergarten through six. These were introduced to 76% of the children in the school through a supplemental program that was voluntary for the teachers. The program utilized district teachers and College of Business and Education students from Arkansas State University to teach the lessons at grades Kindergarten through six.

A preliminary examination indicates that this program is an unqualified success. In 1989, the year before the project began, student test scores in the third grade reading section were at the 23rd percentile, meaning that only 23% of the students passed with minimum competency. These scores were some of the lowest in the state. The math score for the third grade was at the 26th percentile. The scores for the sixth grade were even worse at the 24th percentile for both math and reading. Midway through the project in 1993 the third graders were performing at the 94th and 95th percentile while sixth graders were at the 96 and 89th percentiles respectively. SIFE's direct involvement continues on a limited basis, but the teachers are making extensive use of the materials independently. The purpose of this research is to determine exactly what effects this innovative program had on students in the long run and why.

The first goal of this study was to determine if the program was responsible for the success of the students rather than other variables. For this purpose students were tested in three groups, one experimental group and two control groups. Variables included in the study were: sex; income level; performance in economics; a general aptitude test; instructor; program participation; and race.

A regression analysis using these variables was run using performance in the state reading and math tests for grades 3 and 6 as the independent variables. The only two factors that were significant predictors of success at the third grade level included: a) membership in the treatment group and b) general aptitude. More important, none of the other factors were significant including race, family income, sex or even the instructor. This provides a strong indication that
the SIFE enrichment program in free enterprise works with all groups of children, even the
disadvantaged. The program teaches the importance of free enterprise in a creative manner and
helps develop the basic skills and confidence required to succeed in the modern business world.

INTRODUCTION

The towns of Parkin and Black Oak are located in Cross County, Arkansas, on the
Mississippi River, forty miles north of Memphis. These small towns with populations of less
than 700 were once part of the thriving agricultural scene common along the delta. Now they
are in economic decline. The area's public school population is 83% African-American and
about 90% of the children qualify for the free lunch or reduced price Federal lunch program.
The area is typical of many small towns along the delta with the problems of poverty:
unemployment, despair, poor health/sanitation, dependence on public assistance, high drop-
out and teen pregnancy rates. The most critical educational obstacle facing the children was
a mastery of the basics: reading, writing, grammar and mathematics. No child will find any
success without a command of these basic skills. In 1985 the state of Arkansas began
administering the Basic Skills Test to the elementary students of the state. In Parkin, the
results were bleak. Only 23% of the third grade students could pass the reading
comprehension test at their grade level, the state average was 80%. The mathematics scores
were equally dismal with 26% passing the diagnostic test. The sixth graders also did not
perform to minimal standards, with reading and math scores at the 24th percentile. In past
years frustrated administrators had created a special sixth grade class for students who were
illiterate, ages 12 - 17, but were promoted because of age. These students were primary targets
for a life of poverty and crime beginning when they dropped out of school at 18.

REFORM

A few years earlier the reform minded legislature, led by Governor Bill Clinton, began
a process of change in education that would no longer tolerate these conditions. Money and
standards were poured into the system beginning with college training programs for teachers
and ending with a variety of reforms designed for the school district and the individual
classroom setting. The faculty of the elementary school, under the leadership of Principal
Jeannette Bennett and Superintendent Pete Whitby, worked as a team to devise a plan to
improve the educational opportunities available to their students through a vigorous campaign
to improve basic skills and ultimately end the need for that "special" sixth grade class. The
SIFE developed enrichment program they chose for their schools emphasized the basics, but
used two critical themes as the delivery vehicle; Free Enterprise and Agriculture. Teachers
were trained in summer workshops conducted at Arkansas State University and through
school site workshops to utilize the SIFE developed materials. SIFE students also conducted
15 enrichment seminars from 1991-1995 for the students at the school site.

SIFE Team members, under the direction of Sam Walton Fellow Dr. Larry R. Dale, had
developed a series of materials for elementary grades under grants from the Arkansas Farm
Bureau Federation. The materials included student workbooks and instructional teacher guides:

1) *Success: Your Personal Best,*
2) *Chickenomics: A Fowl Approach to Economics,*
3) *Drug Free Success,*
4) *Everything You Wanted to Know about a Deficit but Were Afraid to Ask,* and
5) *Goldie Locks and the 3 Bears.*

Also included were nine teacher guide and student publication sets:

1) *The Arkansas Adventures of Oliver the Owl,*
2) *Farmer Dan Works for You,*
3) *Life on the Farm,*
4) *Children's Literature Across the Curriculum,*
5) *Stay in School I and II,*
6) *Goldie Locks and the Three Bears Part II,*
7) five specialized units in math and science,
8) drug free lesson plans/SIFE drug free booklets, and
9) *Economics in the Newspaper.*

These were supplemented with a long list of student-oriented reading materials and teaching strategies. Teachers were encouraged to promote the program through the use of creative bulletin boards, learning games, worksheets, field trips and classroom learning experiences designed to help students master the basics and learn about the role of economics in their agriculturally-oriented world.

**IMPACT OF THE CHANGE**

The program transformed the classrooms of this small rural district. Achievement, as measured by test scores, improved dramatically. Table 1 demonstrates the improvement in test scores at the third and sixth grade level from 1985 to 1996.

By the 1994 school year the third grade scores had risen to 94% for math and 96% for reading, higher than the state average. The "special" class was disbanded in 1994, because it was no longer needed. The phenomenal success of this program brought the Governor down for a press conference and an Associated Press Reporter spent a week in Parkin detailing the success of this rural district as part of a series on educational reform. In 1991 the elementary school was honored by the National Center for Economic Education as one of 6 exemplary...
Developmental Economic Education Programs (DEEP) in the nation. A preliminary examination indicates that this program is an unqualified success.

| Year | Math Grade 3 | Reading Grade 3 | Math Grade 6 | Reading Grade 6 |
|------|--------------|-----------------|--------------|-----------------|
| 1985 | 26%          | 23%             | 24%          | 24%             |
| 1991 | 35%          | 32%             | 32%          | 34%             |
| 1992 | 46%          | 50%             | 52%          | 50%             |
| 1993 | 67%          | 72%             | 69%          | 75%             |
| 1994 | 94%          | 96%             | 96%          | 91%             |
| 1995 | 94%          | 95%             | 96%          | 89%             |
| 1996 | 93%          | 92%             | 95%          | 91%             |

AN EMPIRICAL EXAMINATION OF THE RESULTS

The purpose of this research is to examine the record in-depth to determine precisely the effects developed from this innovative program. The first goal of this study was to determine if the program was responsible for the success of the students rather than other variables. For this purpose students were tested in three groups, one experimental group and two control groups. The experimental groups consisted of 98 students from several classrooms that had been exposed to 1 to 3 years in the program. Group two consisted of 38 students from the Parkin elementary school in classrooms that did not participate in the program, which was voluntary for the teachers. The third group consisted of 46 children from four other elementary schools in three districts from the surrounding area who had not participated in the program. A regression analysis was run on the data. The following dependent variables were considered in the study:

1. **Sex:**
   Traditional evidence indicates that males tend to out-perform females in economics subject matter. If this trend holds it would indicate that the material might be more effective in working with boys than with girls.

2. **Income level:**
   Family income was represented by a dummy variable based on student participation in the free lunch program. Students on free lunch were given a score of 1, reduced price lunch a score of 2, and self paid lunch a 3. Since a student's lunch status is based on family income and size it was the best indicator available to the researcher.

3. **Intermediate and Primary Tests of Economic Literacy (ITEL and PTEL respectively):**
   These tests indicated if economic knowledge increased through the program.
4. A General Aptitude Test (GAT6 and GAT3).
5. Instructor:
   A dummy variable was utilized to determine if the instructor was a critical variable.
6. Program Participation:
   Dummy variables were used to represent program participation with: 1 the control group, 2 non-
   participating Parkin students, and 3 the test group.
7. Race:
   A dummy variable was used to examine race as a factor with 1 representing Black, 2 representing
   Hispanic, and 3 representing White.

No other programs were started in the district with the basic skills thrust that needed

to be tested for in the study. The independent variables used in this study were the student's
Math Achievement Scores [grade 6 (MAS 6) and grade 3 (MAS 3)] and Reading Achievement
Scores [grade 6 (RAS 6) and grade 3 (RAS 3)].

FINDINGS

A regression analysis, using the GBSTAT program, was used to determine if there was
any relationship between math and reading scores and any of the other factors as dependent
variables. The results are displayed in Tables 2 and 3.

Table 2
Regression Results Using Math Scores (MAS 3 or MAS 6)

|                          | Primary Level | Intermediate Level |
|--------------------------|---------------|--------------------|
| Sex                      | 9.48 [1.44]   | .041* [5.97]       |
| Income level             | .64 [1.93]    | .91 [.81]          |
| PTEL (ITEL)              | 1.19 [.71]    | -.28 [.18]         |
| GAT3 (GAT6)              | .002* [7.01]  | .0035* [8.78]      |
| Instructor               | 10.18 [2.01]  | 12.12 [1.99]       |
| Program Participation    | .002* [44.31] | .001* [49.11]      |
| Race                     | .33 [.94]     | .18 [1.77]         |

Absolute value of t-statistic in brackets                      *Significant at .01 level
Table 3
Regression Results Using Math Score (RAS 3 or RAS 6)

|                | Primary Level | Intermediate Level |
|----------------|---------------|--------------------|
| Sex            | 1.11 [.54]    | .947 [1.02]        |
| Income level   | .74 [.03]     | 1.99 [.91]         |
| PTEL (ITEL)    | .09 [3.01]    | .08 [1.16]         |
| GAT3 (GAT6)    | .037* [17.88] | .055* [28.11]      |
| Instructor     | 15.12 [21.71] | 18.92 [91.09]      |
| Program Participation | .028* [36.34] | .031* [41.71] |
| Race           | .36 [5.94]    | .58 [2.07]         |

Absolute value of t-statistic in brackets  * Significant at .01 level

As shown in Tables 2 and 3, the factors that were significant predictors of success at the third grade level included:

1) Membership in the treatment group.

The single most significant predictor of success for both groups of students, using both the MAS3 and MAS6 scores as the independent variable, was being in the class in Parkin that received the reading and math enrichment programs. This provides a strong indication that the program was a critical factor in the improvement of the student's ability in those critical areas.

2) Score on the GAT.

The second most important predictor of success on the tests was general aptitude. As expected, brighter students did better in math and reading.

None of the other factors were significant. This provides a strong indication that the SIFE enrichment program works with all groups of children, even the disadvantaged. Interestingly enough the low income and Black children from the treatment group actually had a 2.3 average higher score than their White and higher income counterparts in the control group, even though race and income did not prove to be statistically significant as a predictor.

Basically the sixth grade group had the same results with treatment group membership and general intelligence as the most significant predictors. One other factor was a significant predictor, but only in the math formula, and that was sex, with boys doing considerably better than girls.
CONCLUSION

The results of this study indicate that disadvantaged students from a rural Delta school district noted significant gains in both reading and math scores as the result of a comprehensive innovative program developed by the Arkansas State University SIFE team that integrates free enterprise understanding with agriculture education, the social sciences (particularly economics) and language arts. Family income, teachers, race and, for the most part sex, were not significant barriers to learning with this program.

There was one significant exception noted at the sixth grade level where boys scored higher on the MAS 6 and the ITEL than girls. For some reason no difference exists at the third grade level. While further study would prove useful it would seem that we are doing something to discourage girls from finding math and the science of economics interesting by the time they reach their early teen years. If this is true then something needs to be done to reverse that trend.

Since 1993 these same materials have been made available to teachers in 137 districts throughout Arkansas. A number of schools have adopted the program and report that it has been been improving student performance.

Journal of Entrepreneurship Education, Volume 1, Number 1, 1997
EDUCATING NATIVE AMERICANS ABOUT FREE ENTERPRISE

Lisa F. Borstadt, Northern Arizona University
(Lisa.Borstadt@NAU.edu)
Ron S. Lee, Northern Arizona University
Sandra One Feather, Northern Arizona University

ABSTRACT

This paper discusses two SIFE projects that address the goal of teaching the economically disadvantaged an understanding of the free enterprise system and how to be full participants in the system. In particular, the projects are aimed at educating young people who are members of the Navajo and Hopi Tribes, who, due to numerous social, economic, and political reasons, have many barriers to overcome in merging a traditional cultural society with a free enterprise system.

The SIFE team at Northern Arizona University developed and delivered two projects to Native American youths on the Navajo and Hopi Indian reservations. The first project was a two-hour money management/banking skills seminar that was taught at six different reservation high schools, reaching about 400 senior high school students. The seminar covered money management skills, including tips for being a good consumer and how to budget, in addition to information on the basics of opening and maintaining checking and savings accounts.

The second project was a small business curriculum for elementary school children. This experiential-based learning project was delivered to Cameron Elementary School on the Navajo reservation in addition to other local schools in Flagstaff, Arizona. SIFE students conducted six 45-minute modules over six weeks designed to teach children the fundamentals of running a business. The school children conceived, started and ran their businesses through at least one production cycle prior to the close-out session, where SIFE students helped the children determine their business profit and decide whether or not to continue their businesses.

INTRODUCTION

Northern Arizona University (NAU), located in Flagstaff, Arizona, with a population of about 50,000, is nestled in the foothills of the San Francisco mountains in the northern part of the state. The state of Arizona has twenty-one different Indian tribes and the city of Flagstaff is adjacent to both the Navajo and Hopi Indian reservations. These reservations consist of sparsely populated open land that is used primarily for communities, farming, livestock, and religious purposes. One of the major focuses of the rookie SIFE team at NAU was to target several projects towards the education of Native Americans about how businesses operate and how a free market economy works. Tribal members living on the reservation suffer from poverty, high rates of unemployment, and low incomes in comparison to the U.S.
population as a whole. A critical need for economic and business education exists due to extremely poor economic conditions, a severe shortage of business enterprises, a scarcity of financial institutions, the sovereignty of the tribes (which have their own tribal governments and tax systems) and an apathetic attitude among many tribal youths.

BACKGROUND ON THE NAVAJO AND HOPI TRIBES

The Navajo tribe has the largest land base of any tribe in the United States, covering 25,351 square miles in the states of Arizona, New Mexico, and Utah with a population of 219,198 members. The Hopi Tribe has a land base of 1,622,511 acres with 7,863 members. Currently, economic conditions on the reservations are very poor, in large part due to the lack of basic infrastructure necessary for economic development. Navajo housing units lack basic modern necessities with 50.85 percent without complete plumbing, 46.95 percent without complete kitchen facilities, and 77.5 percent without telephones. Due to the lack of a sound economic base, unemployment ranges from 38 to 50 percent on the Navajo Reservation and 65.37 percent on the Hopi Reservation. Per capita income for the Navajo Reservation is $4,106 and $4,566 for the Hopi Reservation. As a result, the percentage of Hopis and Navajos living below the poverty level is over 56 percent. Due to the scarcity of business enterprises on the reservation, the bulk of Native Americans’ personal income is spent in bordering towns and cities. The Navajo Nation Office of Economic Development estimates that as much as 70.6 percent of personal income leaves the reservation.

BARRIERS TO ECONOMIC DEVELOPMENT

The sovereign status of Indian tribes has, in some ways, contributed to the lack of reservation economic development. As government entities, tribes are immune from lawsuits by banks and other financial institutions. As a result, land and other assets cannot be pledged as collateral because “the trust status” prohibits their ownership from being transferred to non-Indians. However, in certain cases the “trust status” can be waived. This has been occurring with increasing frequency to enable individuals and businesses to obtain loans. Sovereignty also means that each tribe has its own government structure complete with taxing authority and control over land use. Individuals cannot own land on the reservation. Therefore, anyone wishing to start a business must go through a complicated and lengthy site lease process in order to locate a business on a particular site.

Another impediment to economic development is the fact that banking institutions are few and far between on reservations. The vastness of the land base and the sparse population of the reservation makes it economically inefficient for banks and other financial institutions to locate there. The Navajo reservation has four financial institutions in three states to serve the needs of its people and “these institutions are far from adequate to meet the needs of the Navajo people.” Meanwhile, the Hopi reservation currently has no major banking institutions on its lands. The scarcity of existing financial institutions on the Navajo and Hopi reservations also contributes to the lack of understanding Indian residents have regarding
fiscal responsibility, the value of savings and investment, and the intermediary function of banks.

The complicated legal arena under which tribes operate is another hindrance in the development of reservation businesses. Since tribes must operate under several laws (federal, tribal, and state), a large amount of legal red tape must be overcome by lending institutions. In general, tribes are exempt from U.S. laws that allow a creditor to seize personal assets as collateral when a person defaults on a loan.\textsuperscript{5} Personal loans to residents of the reservations typically come from family or friends.

\section*{NEED FOR ECONOMIC EDUCATION}

Traditionally, there has been little private sector business development on reservations due to the lack of an existing infrastructure conducive to and supportive of the success of reservation businesses. Hamp Merrill, Coordinator of the Arizona Office of Indian Programs, compiled the following list of reasons for the lack of free enterprise on the reservation: “lack of continuity in tribal government; lack of direction from tribal government; lack of experienced managers to run businesses; lack of business training; and the lack of access to marketplaces.”\textsuperscript{6} As a result, a great need for education about how a free market economy and businesses operate exists. Additionally, as the reservation economies develop, the demand for financial services is increasing, invoking a need to educate the Native American population about financial markets.

Today’s Indian youth struggle to balance their Indian tradition, culture and dismal economic reality with those of modern America. Young people on the reservation find it difficult to obtain basic job skills while in high school since few businesses such as fast food restaurants are located on the reservation. Unemployment is high and the impetus to better oneself by getting a good job is an unrealistic expectation since the means often do not exist.

As a result, many reservation high school students have a pessimistic attitude about their futures. The following education statistics are a reflection of this apathetic mind set. The percentage of the Navajo population 25 years or older with a high school diploma is 43.5 percent. Reservation high schools report that approximately 15 percent of their high school graduates apply to a four-year college and only 2.9 percent of the students who attend a four-year degree program successfully achieve a bachelor’s degree or higher.\textsuperscript{7} Thus less than two-tenths of one percent of Navajo high school students successfully complete college. The education statistics for the Hopi tribe are similar; 62.6 percent of students graduate with a high school degree but only 3.3 percent of tribal students who start college successfully attain a bachelor’s degree or higher.\textsuperscript{8}

\section*{SIFE EDUCATIONAL PROJECTS IMPLEMENTED ON THE RESERVATION}

The Northern Arizona University SIFE team developed and implemented two projects focused on educating members of the Navajo and Hopi tribes. The first is a two-hour money management/banking skills seminar that was delivered to over 400 students at six different
reservation high schools. This project addresses the goal of teaching the economically disadvantaged how to be full participants in a free enterprise system by teaching fiscal responsibility, the value of savings and investment, and the intermediary function of banks. The second is a small business project and curriculum for elementary school children which addresses the goal of teaching the economically disadvantaged an understanding of how to operate a business.

An added dimension to both of these projects is the fact that four of the NAU SIFE team members are Native Americans. Two graduate students: Sandra One Feather (Master of Business Administration - Oglala Lakota/Navajo tribes) and Ron Lee (Master of Public Administration - Navajo tribe) and two undergraduate students: Pearl Begay (Business Administration - Navajo tribe) and Brenda Van Keuran (Business Administration - Navajo tribe) participated in the projects. These students provided positive role models for reservation youth by helping to deliver the presentations and answering questions during and after the sessions. Additionally, media coverage of the Projects was provided by several local newspapers including: The Navajo Times, The Navajo/Hopi Observer, and the Gallup Independent.

**MONEY MANAGEMENT/BANKING SKILLS SEMINAR**

This project was delivered by SIFE student members in a two-hour seminar that focused on teaching high school seniors on the reservation how to manage money and acquainting them with a knowledge of basic banking skills. Six reservation high schools and Indian dormitories were targeted this semester including Hopi High School, Tuba City High School, Grey Hills High School, Flagstaff Bureau of Indian Affairs Dormitory, Winslow Bureau of Indian Affairs Dormitory, and Mingus High School. The number of senior students attending ranged from 30 to 80 at the various high schools, with a total of approximately 400 students. Based on attendance estimates made by the high school counselors, the number of SIFE students assigned to each location varied to ensure that enough students were on hand to work with the high school student groups. A total of 16 different SIFE students were involved in the delivery of this project at the six seminar locations.

Funding for the project was obtained from Bank One of Arizona. Executives from the bank helped SIFE students prepare the seminar and provided materials consisting of handouts on money management, a budget planner, and sample blank checks.

The content of the seminar consisted of a one-half hour lecture on money management skills, including ten basic rules of money management, tips for being a good consumer, and how to prepare a monthly budget (including a discussion of monthly income, fixed and variable expenses). This was followed by a one-half hour interactive group exercise where the high school students were divided into small groups to prepare their own budgets. Some groups were instructed to prepare the budget as if they were college students and others as if they were going to live on their own and work to support themselves. SIFE students worked with each group to develop their budgets, which then were critiqued by the group as a whole. Following a break, the lecture resumed on the basics of opening and maintaining checking and
savings accounts. This was followed by an activity where students practiced how to write and endorse checks. Finally, the value of saving was demonstrated with some numerical and graphical examples of the compounding of interest.

The reservation high school students knowledge about money management and banking also was measured. A concept-matching quiz containing 9 questions was designed and administered to the high school students before and after the seminars. The mean pre-test score was 3.9 (43 percent) and the mean post-test score was 6.8 (76 percent) with 41 percent of the students scoring 100 percent on the post test.

Feedback obtained from both high school students and counselors has been overwhelmingly positive. On a scale of 1 to 3 with 1 being No Value and 3 being Very Valuable, 87.5 percent of the students responded that the seminar was very valuable in increasing their personal knowledge of money management. Comments from the students included: “Had so much fun”, “I really learned alot from SIFE”, “I really enjoyed it”, and “This was a very good lesson and I think I have learned alot”. The high school counselors also filled out a workshop evaluation form. On a scale of 1 to 5 with 5 being excellent and 1 being poor, the workshop scored a perfect 5 on all workshop dimensions including content, delivery, level, pace, and overall workshop evaluation. Additionally, the counselors have requested that we return this semester to repeat the workshop for the younger high school students, as well as repeating the seminar each year.

ELEMENTARY SCHOOL BUSINESS PROJECT

The NAU SIFE team developed and implemented an Elementary School Business Project. The pilot project was conducted last fall semester for a combined fourth, fifth and sixth grade class at a charter school in Flagstaff. This project is currently being delivered to the sixth grade class at Cameron Elementary School on the Navajo reservation, in addition to two classes in the Flagstaff Public Elementary Schools.

The objective of the project is to teach students the fundamentals of running a business. This is especially important for Native American youth as it exposes them to the concept of business ownership as a viable career choice. Due to the scarcity of businesses on the reservation, these children typically have not been exposed to a market based economy, nor to entrepreneurial role models.

The project consists of curriculum delivery (six modules taught over six weeks) and assistance with the formation and operation of a small business. The elementary school students, organized into groups, developed and managed a service or production business. When possible and with the cooperation of the classroom teacher, the business project was tied into students’ classroom learning in the areas of math, writing, and computer skills.
Module 1: Concept of a Business

The key concepts taught in this introductory session included service or product, entrepreneur, demand, and government vs. private business. The school children, organized into small groups by their teacher, were assigned the task of deciding what type of business they wanted to operate. SIFE students helped with the generation of ideas and asked that the children finalize their decisions by the following week.

Module 2: Market Research

SIFE students discussed ways to determine if demand for a product or service exists. They helped the children design a business survey with instructions to administer the survey (to friends, family, or neighbors) and bring back their results the next week. Included in the survey were questions relating to how much customers would be willing to pay for the products or services.

Module 3: Product/Service Cost

The cost of supplies and labor (wages) and how to price a product or service were discussed. The school children were assigned the task of finding out how much various raw materials, supplies, and resale products would cost for their businesses.

Module 4: Income Projections

Information gathered in modules 2 and 3 were utilized to derive product/service prices and quantities. Key concepts defined were revenue, expenses, and profit. The classroom teacher integrated this material into a number of math lessons.

Module 5: Financing

Having already determined how much money they will need, the school children wondered where the money would come from to start up their businesses. The key concepts introduced include savings, loans, interest (cost of money), and equity investment. In most cases the money comes from the children’s allowance, and loans or equity contributions of their parents.

Module 6: Marketing

Advertising, promotion, and customer service were discussed in this module. The children designed their own signs and advertisements. In most cases the advertising was done at the school and in flyers sent home to parents.

The curriculum modules were designed with the intent of teaching several key concepts in each 45-minute session. SIFE students utilized role-playing, skits, and interactive dialogue with the school children to teach the students an understanding of key concepts. At the end of each module the students were given an assignment to have ready for the following week.
Following is a brief description of each of the six core modules. (More detailed project descriptions and related supplementary materials can be obtained upon request from the authors.)

Following these six modules the school children started their businesses with the help of SIFE students, the classroom teacher and parents. Our goal was to help the students establish their businesses in order to run them through at least one production cycle. Some of the start-up businesses included a school snack bar, holiday gifts and ornaments, jewelry, a school yearbook, candles, and sports trading cards. Typically, the most convenient location for these businesses was at the school itself.

After the students experience the operation of their businesses, the SIFE students followed up with a classroom close-out session. In this session they helped the school children compute their profit. Also discussed was whether or not they would continue to operate their businesses and how the money earned would be used to pay back loans and be distributed to the workers and equity holders. To conclude the project, the SIFE students rewarded the school children with certificates of completion and pencils or stickers.

Finally, a pre and post test consisting of 16 concept-matching questions was administered to the class to measure what the students learned from the business project. The mean scores on the pre and post tests at Mountain Elementary School were 58 and 77 percent respectively. Additionally, the verbal feedback from the children, their parents and the classroom teacher was very enthusiastic. This semester, the mean pre test scores at the two Flagstaff Public Elementary School classes was 57 percent as compared to a mean pre-test score of only 34 percent at Cameron Elementary School on the Navajo reservation. Since these projects are currently underway, the post tests have yet to be completed.

FUTURE PROJECT APPLICATIONS

Based on the enthusiastic and overwhelming response to these projects, our SIFE team continually receives requests from other schools for implementation. Counselors and teachers at the reservation high schools have requested that we repeat the money management/banking skills seminar every year for their senior high school students, in addition to repeat performances for the younger high school students. This semester, requests from two different classes at a Flagstaff public elementary school for our elementary school business project also were received and fulfilled.

Future projects targeted to reservation students and schools currently are being explored. The National Education Center for Women in Business in Greensburg, Pennsylvania has been contacted so that SIFE can host a Native American Young Women’s Entrepreneur Camp next year in conjunction with the Center for American Indian Economic Development at Northern Arizona University. Additional seminars focusing on the role of banks in business formation and operations are in the planning stages.
ENDNOTES

1. *Navajo Nation Fax 93: A Statistical Abstract of the Navajo Nation.* Compiled and Produced by: Mr. Duane Etsitty, Support Services Department, March 1994, Navajo Division of Economic Development, P.O. Box 663, Window Rock, AZ. 86515.

2. *Report of the Task Force on Indian Economic Development,* U.S. Department of the Interior, July 1986, page 225.

3. *Tiller’s Guide to Indian Country: Economic Profiles of American Indian Reservations.* Edited and compiled by Veronica E. Velarde Tiller. BowArrow Publishing Company. Albuquerque, NM, USA, 1996, pg. 217.

4. *Arizona Department of Commerce: Community Profile: Hopi Indian Reservation.* Arizona Department of Commerce, Phoenix, AZ, USA, 1994.

5. Federal law states “Congress has exempted from state jurisdiction the alienation, encumbrance and taxation of Indian property” United States Code 18 U.S.C. Section 1162(b), 25 U.S.C. Section 1322(b).

6. University of Arizona Office of Indian Programs and U.S. Small Business Administration, Conference “Indian Country -- We Know The Problems -- What Are the Solutions”, April 21, 1993.

7. *Tiller’s Guide to Indian Country: Economic Profiles of American Indian Reservations.* Edited and compiled by Veronica E. Velarde Tiller. BowArrow Publishing Company. Albuquerque, NM, USA, 1996, pg. 214.

8. *Tiller’s Guide to Indian Country: Economic Profiles of American Indian Reservations.* Edited and compiled by Veronica E. Velarde Tiller. BowArrow Publishing Company. Albuquerque, NM, USA, 1996, pg. 210.

Note: More detailed project descriptions and related supplementary materials can be obtained upon request from the authors.
THE IMPACT OF CHILDREN'S THEATER ON THE COMPREHENSION OF FUNDAMENTAL ECONOMIC CONCEPTS

Joyce Ann Shotick, Bradley University

ABSTRACT

"All the world's a stage and all the people are merely actors" is a familiar Shakespearean quote that identifies a unique characteristic of human behavior: people of all ages enjoy interacting with others in a theater setting. Interaction can range from a prominent role in the presentation to answering questions addressed by the characters. Children’s theater is an exciting method of involving audiences in a specific situation by soliciting responses from the students to help the actors solve their problems. The interaction in children's theater can serve as a powerful teaching mechanism.

The purpose of this paper is to analyze the impact of children's theater on elementary school students' understanding of fundamental economic concepts and describe methods of implementing this dynamic teaching method. The goals of this project were to prepare and present a humorous play explaining the free enterprise system for elementary school students, and to measure the impact this teaching tool had on their basic economic knowledge. Although children's theater has been used in the classroom for students to experience drama has frequently been cited in the literature, the impact that interactive teaching has on student comprehension is limited.

In this paper, the historical aspects of drama in the classroom and how it has been used as a pedagogical technique for teaching economic concepts are discussed. Next, the objectives for using an interactive approach with students are identified and the method of preparation and presentation are explained. The results of the pretest and post-test instruments are summarized. Finally, conclusions and implications of children's theater for educational purposes are offered.

HISTORICAL PERSPECTIVE

People have always been fascinated by theatrical presentations, whether it was a few children reenacting their day or a full scaled production on stage. As John Allen (1979) explains, much of our history has been passed along through theater. For example, the ancient Greeks frequently presented plays that depicted military conquests to the citizens so they would learn of such events. Elizabethan grammar schools used a considerable amount of acting in Greek and Latin as well as in English. Additionally, Jesuits in the seventeenth and eighteenth centuries used drama as a method of portraying the spirit of humanism in order to teach their doctrines to the people.
As important as theater has been to providing both literary and educational experiences for adults, it has only been this century that children's theater has become recognized and accepted as a method of education. During this time, children's theater has flourished in America both as an artistic form and as an educational vehicle. However, it was not until the 1940's that theatrical groups experimented with the actor-audience relationship to determine the most suitable form of presentation. According to Goldberg (1974), innovative acting companies found that the actors' ability to improvise, work as a team, and to devise programs with an important message are all essential to accomplishing education through theater. Although many acting groups have successfully combined all three elements, Goldberg noted that educators and professional theater people were suspicious of each other, and therefore, the employment of such acting companies in the classroom has remained limited.

The educational importance of creative theater cannot be minimized. Robert Leech (1964) in his dissertation on the education of theater emphasized the need for recognition by the adult community to accept the creative approach of the theater. This philosophy of theater for children proposes to enrich children's lives by allowing them the opportunity to participate in the production. Leech purports that drama must possess sincerity, simplicity, excitement, and imagination in the authorship of the script, technical elements of the stage settings, and the delivery by the actors. The coordination and implementation of a play that incorporates all these aspects can have long-term impact for the children.

**USAGE OF CHILDREN'S THEATER AS A PEDAGOGICAL APPROACH**

Children's theater is a dramatic technique that provides children the opportunity of involvement by encouraging them to answer questions regarding the characters or their situation. According to Goldberg (1974), children's theater is a formal theatrical experience in which a play is presented to an audience of children. The goal of children's theater is to provide the best possible theatrical experience for the audience by employing all of the techniques and principles of the theater, using some of them in special ways. Nearly always, children's theater is reserved for performance by adult actors.

The key factor for the success of teaching economics to children is motivation (Schug, 1973). Children's theater is a means of tantalizing their interest to learn about the characters and their dilemma. Children and adults alike are captivated by watching and interacting with actors who portray characters that are humorous, mysterious, or dangerous. Bolenbaugh (1989) found that incorporating drama into economic teaching provided the motivation for learning. Moses Goldberg (1974) stated that pedagogically, children's theater can be a powerful force with far-reaching consequences. Through children's theater, learning is increased by the motivational situation of an enjoyable diversion over the typical formal classroom. The play teaches indirectly by exposing truths and ideas to the choice of the spectator. Goldberg explains that the learning that occurs during a theatrical presentation becomes the learner's responsibility, by which such self-chosen learning is faster and more thorough than formal lecture.
According to Kenneth L. Graham (1963) there are five benefits to using theater to teach children: entertainment, psychological growth, aesthetic appreciation, the development of a future audience, and educational exposure. The educational exposure of economic concepts is enhanced because of the interaction of the actors with the children. Participation results in acquiring new information or enhancing existing knowledge (Redington, 1983). If children view the play on film, there is less opportunity to interact with the actors, thus reducing the motivational situation and reducing the potential for learning. However, the use of live actors who incorporate opportunities for students to comment and respond to situations and questions posed by the characters, offers the student the motivation to participate in the story of the play.

Like drama, teaching often has an entertainment quality in order to gain and maintain students' attention and interest. If students are motivated to pay attention and respond to what is being explained, they are more likely to comprehend and apply that information later (Shotick and Walsko, 1997). Children's theater is an ideal way to captivate students and encourage them to participate in the action. Opportunities for children to interact with the production is important to maintain their attention. By constructing a plot, conflict, and resolution regarding economic choices in the dialogue of the play, children learn these abstract concepts. According to Anderson, Boyer, and Robidoux (1982), theater production develops enthusiasm for understanding economic concepts. In their project, a script containing six economic concepts was written by their students. The use of a puppet and narrators were employed in the presentation. The remaining students in the school who viewed the resulting theater production tested approximately 30% higher than the similar student body who did not view the production.

Economics is a discipline that has long been labeled the dismal science. As Watts and Smith (1989) point out, it is very hard, if not impossible, to incite excitement to learn a gloomy discipline. However, with some creativity and enthusiasm, the abstract concepts can be applied to real life examples to which children can relate. The essence of economics is understanding the decision-making process and be able to apply it to specific situations. Learning to make good decisions can often occur when students witness the repercussions of poor decisions or the success of good decisions through the characters' experiences.

OBJECTIVES OF CHILDREN'S THEATER FOR TEACHING ECONOMICS

To implement children's theater into the teaching of economics, four objectives were established. The first objective was to explain basic economic concepts to elementary students and to provide them with an opportunity to apply that knowledge to their own personal background. The play was written so that one character would explain productive resources to another character and then ask the student to tell what they produce at home and at school. By describing the concepts through enactment and then encouraging the students to relate the concepts to personal experiences, economic education was greatly enhanced.

The second objective of this project was to motivate children to learn about making decisions. The use of silly animal characters in the play was an attempt to generate enthusiasm.
for studying basic facts about issues and problems that bear economic significance. By bringing economic situations to life, students were able to identify with the economic problems and alternatives for solutions. The process of identifying with the characters motivated students to remain attentive and learn how these characters make important economic decisions.

The third objective was to positively influence children’s attitudes about the free enterprise system. Through participation in the theater, young children learned how consumers and producers determine what is sold in the marketplace. The children were able to relate to such activities as shopping with a parent or watching them at work. Children are often directly involved in economic activity when comparing prices during a shopping expedition, producing a service or good when performing a task at home or at school, or saving for a more expensive item to be purchased later. These young children were able to relate to similar economic problems faced by the characters. Observing the play helped children to gain an appreciation of our economic system. Through interaction with the characters, children developed empathy for the difficult economic choices that family members must make everyday.

The last objective was to provide opportunities for role awareness. Through the characters, students became conscious that they are active participants in our free enterprise system. They often times emulate their parents and want to know about their roles in society. Children's theater allows the children to observe how decisions are made and develop an understanding of their roles as consumers and producers in our society.

**ELEMENTARY STUDENT AUDIENCE**

As children grow and develop, their tastes and preferences change. At early ages, six to nine years old, these young people are actively trying to make sense of their economic world (Ross, 1993). They are energetic, yet their attention span is quite short. Children at this age enjoy strong visual impressions that allow them to respond both physically and emotionally. Children's theater is an excellent teaching method to cultivate such reactions because both visual and auditory senses are stimulated. By receiving both visual and oral messages, children are motivated to direct their attention toward the action (Selwyn, 1995). Thus, the children concentrate on the actors' interactions and the information provided by the actors.

Children at this age are attracted to new ideas in a familiar setting. They are intrigued by their immediate environment in which they are continually learning to adapt. For example, children at this age enjoy stories and plays about animals with which they are well acquainted. The different reactions of the animals to different situations are fascinating to this audience (Goldberg, 1974). Thus, a children's play in which the actors are simple animals creates a comfortable setting in which the children can pay attention and enjoy learning.
METHOD OF APPLYING CHILDREN'S THEATER TO ECONOMIC EDUCATION

Children's theater plays can be produced from original manuscripts or other literary features. The play for this project was adapted from the *Master Curriculum Guide in Economics/ K-2*, entitled "Pinky's New Bow Tie." Originally a puppet play, the script was edited to be a theatrical production presented by college students from a local university. There were two unique aspects of this play. First, a children's theater production with SIFE members at Bradley University was an exciting way to present the information. Second, the play offered many opportunities for the characters to solicit responses from the children concerning the application of the economic concepts. For example, the children were asked if they could think of natural resources that are used to produce goods and services. This interaction of the young children with the characters aided in maintaining the children's interest and encouraging them to think of other types of producers.

The advantages of using SIFE members to present the children's theater were threefold: 1) they were anxious to help teachers in the community; 2) many of them have some formal training in economics at the college level; and, 3) they were flexible to the time schedules to share their talents with young students. The children readily received the college students as actors in the play and replied to the questions. The college students' economic knowledge was helpful in directing the discussions that the actors had with the children.

Evaluative method

Pretest and post-test instruments were designed to measure the increase in children's comprehension of the economic concepts addressed in the play. The test instruments consisted of six multiple choice questions about fundamental economic concepts. These concepts included economics, money, education, businesses, consumers, and resources. The pretest was administered by the teachers the day before the production. The post-test consisted of the exact same questions as the pretest and was administered the day following the performance.

Over 2,000 elementary students viewed the play. However, due to the limitation of time to administer the pretest, the sample consisted of 768 students who took the pretest and 751 students who answered the post-test. These students ranged from first to fourth grades. The income level of these students' families varied across all levels. The average age of the teachers was 37 years old, indicating that younger teachers might be more willing to try different teaching techniques. Approximately 35% of the sample was comprised of parochial students and the remainder were students in the public school system.

In order to determine the significance of the play on children's learning, the student's t-test for differences between pretest and post-test scores was conducted for each school, each grade, as well as for the total sample. The appropriate degrees of freedom were applied to the specific cases at the 5% level of significance.

RESULTS

Test scores, on average, were significantly higher on the post-test than the pretest for all six questions. Each question on the post-test received a significantly higher percentage of
correct answers than on the pretest. The relative frequencies of the correct responses by each question are displayed in Table 1. Of the children who participated in the entire project, 33% answered question number one correctly on the pretest, whereas, 61% answered that question correctly on the post-test. The first question focused on the definition of economics. It would appear that children at this age do not have an understanding of the meaning of economics. This question received the greatest increase in correct responses on the post-test. This was particularly encouraging because economics as the study of choice was the focus of the play.

Table 1: Relative Frequencies of Correct Responses
(N_{pretest}=768, N_{posttest}=751).

| Question                | % Correct Pretest | % Correct Post-test |
|-------------------------|-------------------|---------------------|
| 1 - Economics definition| 32.94             | 60.85               |
| 2 - Importance of money | 58.72             | 74.17               |
| 3 - Staying in school   | 80.09             | 81.09               |
| 4 - Goal of a business  | 69.27             | 74.04               |
| 5 - Consumers           | 58.86             | 62.25               |
| 6 - Resources           | 51.04             | 62.45               |

More than 58% of the students in the pretest selected the correct answer to the second question regarding the importance of money; whereas, almost 75% selected the correct answer in the post-test. At such an early age, children are learning about money. The improvement on the post-test instrument would indicate that the children acquired some important information about the purpose of money. The third question received the greatest percentage of correct responses on both the pretest and post-test. This question pertained to the importance of staying in school in order to obtain a good job. This suggests that teachers, parents, and friends have reinforced the need to attain an education. The last two questions regarding consumers and resources received the smallest increase on the post-test. The high pretest score was attributed to the notion that children today have personal experiences as consumers at an early age.

Only 7% of the students answered all the questions correctly on the pretest; whereas, 19% answered all of the questions correctly on the post-test. This indicates that many of the students had acquired some understanding of fundamental economic concepts after having been exposed to the play. These results are displayed in Table 2. Before viewing the play, slightly more than half the students responded correctly to at least 3 questions. After viewing and participating in the play, almost three-fourths of the children answered at least 3 of the questions correctly on the post-test.
Table 2: Relative and Cumulative Relative Frequencies of the Number of Correct Responses  
(N\text{pretest}=768, N\text{posttest}=751).

| Number of Correct Responses | Relative Frequency | Cumulative Relative Frequency |
|-----------------------------|--------------------|------------------------------|
|                             | Pretest            | Post-test                    | Pretest            | Post-test          |
| 6                           | 0.07               | 0.19                         | 0.07               | 0.19               |
| 5                           | 0.22               | 0.30                         | 0.29               | 0.49               |
| 4                           | 0.25               | 0.23                         | 0.54               | 0.71               |
| 3                           | 0.21               | 0.15                         | 0.75               | 0.86               |
| 2                           | 0.15               | 0.08                         | 0.90               | 0.94               |
| 1                           | 0.08               | 0.05                         | 0.98               | 0.99               |
| 0                           | 0.02               | 0.01                         | 1.00               | 1.00               |

The total sample was divided by school and the means and standard deviations were computed. These descriptive results are shown in Table 3. Every school had a significantly higher post-test score. St. Phil's school had a mean of 4.81, the highest average score of all the schools in the pretest. This school also received the highest average score in the post-test, 5.19. Every school demonstrated an increase in their post-test scores after participating in the children's theater. This would indicate that regardless of the income, educational environment, or teacher attitude at the various schools, the students learned fundamental economic concepts from the play.

Table 3: Descriptive Results of Pretest and Post-test by Schools.

| School (sample size) | Pretest | Post-test | T-value |
|----------------------|---------|-----------|---------|
|                      | Means   | S.D.      | Means   | S.D.    |         |
| Dunlap (60)          | 4.17    | 1.51      | 4.94    | 0.91    | 3.21**  |
| Illini Bluffs (61)   | 3.76    | 1.23      | 4.60    | 1.21    | 3.79**  |
| Mossville (23)       | 3.22    | 1.51      | 4.22    | 1.65    | 2.14*   |
| Northmoor (117)      | 2.82    | 1.47      | 3.58    | 1.64    | 3.78**  |
| Princeville (111)    | 3.80    | 1.29      | 4.32    | 1.40    | 2.87*   |
| St. Phil's (52)      | 4.81    | 1.05      | 5.19    | 1.21    | 1.68*   |
| St. Thomas (194)     | 3.50    | 1.34      | 4.19    | 1.39    | 4.97**  |
| SVDP (79)            | 3.87    | 1.32      | 4.55    | 1.15    | 3.43**  |
| Woodrow Wilson (71)  | 2.31    | 1.16      | 2.96    | 1.76    | 2.93*   |

The average scores for each grade are displayed in Table 4. Post-test scores were significantly higher for each grade level. The average number of correct answers on the pretest for fourth graders was 4.47, the highest score for all four grade levels, which would be as expected. Post-test scores for all grade levels increased after having viewed the play, suggesting that the play was appropriate for these four grades. The second graders had the most
interesting scores. Although they received the lowest pretest and post-test scores, the increase in post-test scores for the second graders was the greatest of the four grades. This indicates that the second graders in this sample had received less instruction in economics than the other grades before participating in the play and therefore, they had the most potential to learn from the play.

| Grade (sample size) | Pretest Means | Pretest S.D. | Post-test Means | Post-test S.D. | T-value |
|---------------------|----------------|---------------|-----------------|----------------|--------|
| First (127)         | 3.19           | 1.32          | 3.91            | 1.44          | 4.09** |
| Second (209)        | 2.81           | 1.43          | 3.67            | 1.46          | 6.08** |
| Third (250)         | 3.74           | 1.29          | 4.47            | 1.25          | 6.03** |
| Fourth (182)        | 4.47           | 1.21          | 4.98            | 1.22          | 3.94** |

Results from the pretest and post-test for all participants can be seen in Table 5. As a whole, the entire sample answered 3.61 questions correctly, on average, on the pretest with a standard deviation of 1.45 questions. The children answered 4.16 questions correctly, on average, on the post-test with a standard deviation of 1.44 questions. The entire sample received a significantly higher post-test score after having been exposed to the children's play. This would indicate that children's understanding of economic concepts had increased due to the children's theater at all schools and at every grade level.

| Total Participants | Pretest Means | Pretest S.D. | Post-test Means | Post-test S.D. | df | T-value |
|--------------------|---------------|--------------|-----------------|----------------|----|---------|
|                    | 3.61          | 1.45         | 4.16            | 1.44          | 1.84 | 8.12** |

CONCLUSIONS AND IMPLICATIONS

The objectives of using children's theater to teach economics were fourfold. First, fundamental economic concepts were defined within the dialogue of the play and interactive questions were addressed to the students for their participation. From the testing procedure, it is evident that the students increased their understanding of economic concepts. Second, the interaction of the characters with the children provided them with an opportunity to think about the decision making process. Encouraging the students to discuss examples of making economic choices motivated the children to analyze the impact of such decisions.

Third, to create a positive attitude towards our economic system, the characters in the play discussed the benefits of the free enterprise system and how those advantages pertain to
them. The children learned that money is an important means of distributing goods and services in our economic system. Finally, the characters taught the students about their economic roles by enacting the processes of consuming and producing. Recognizing familiar situations in which the children have been involved enhances their understanding of their roles in our society.

Children's theater can be used to integrate economics into the social studies curriculum for elementary students. The use of theater can be valuable for teachers by presenting or reinforcing selective economic concepts. Few children know what economics is unless someone takes the time to define and explain it to them. The opportunity to combine economic content with theatrical entertainment has the synergistic effect of increasing their understanding of our free enterprise system.

Second graders had the lowest pretest score but demonstrated the most improvement in their post-test scores. In this sample, the seven year old children displayed the greatest capacity to learn using children's theater as a means of teaching economics. This would imply that this creative yet simplistic teaching method is best suited for this age.

Young children have an earnest desire to learn about their environment. Children are anxious to learn, but hate to be taught. Children learn best when they recognize and identify with the characters that the actors portray even though they are unaware that "teaching" is occurring. Thus, substantial learning can happen during the presentation of children's theater. Regardless of school, teacher, or grade, children can learn from participating in children's theater. This unique way of teaching provides opportunities for all types of children to learn about our free enterprise system.
REFERENCES

Allen, J. (1979). *Drama in schools: Its theory and practice*. London: Heinemann Educational Books.

Anderson, D., Boyer, E., and Robidoux, D. (1982). *What is your cobra E.Q.?* National Depository for Economic Education Awards: Illinois State University: Normal, IL.

Bolenbaugh, M. (1989). Learning economics through drama and music. *Social Studies Journal, 18*, 37-42.

Goldberg, M. (1974). *Children's theater: A philosophy and a method*. New Jersey: Prentice-Hall, Inc.

Graham, K.L. (1963). Educators cite ties to theater. *The New York Times*, August 27, page 26.

Leech, R. (1964). *Education Through Theater for Children*. Ann Arbor, MI: University Microfilms, Inc.

*Master Curriculum Guide/K-2* (1996). New York: EconomicsAmerica.

Redington, C. (1983). *Can theater teach?* New York: Pergamon Press.

Ross, A. (1993). Playing at work? Means and ends in developing economic and industrial awareness in the early years of education. *Early Child Development and Care, 94*, 67-85.

Schug, M. (1973). *Economics for Kids: Ideas for Teaching in the Elementary Grades*. New York: Joint Council on Economic Education.

Selwyn, D. (1995). *Arts & Humanities in the Social Studies*. Tucson, AZ: Zephyr Press

Shotick, J. & Walsko, G. (1997). Utilizing children's theater to teach economics. *Social Studies and the Young Learner, 9*(3).

Watts, M., & Smith, R. (1989). Economics in literature and drama. *Journal of Economic Education, 20*, Summer, 291-307.
THE STUDENTS IN FREE ENTERPRISE
FOUR STATE INVESTMENT CHALLENGE

Scott Wyckoff, Pittsburg State University
David O’Bryan, Pittsburg State University
June Freund, Pittsburg State University
Mat Burton, Pittsburg State University
Tom Payne, Students in Free Enterprise

ABSTRACT

Students in Free Enterprise (SIFE) is a partnership between higher education and business whose primary objective is to promote an improved understanding of economic issues among college and university students through experiential, entrepreneurial activities. The educational impact of SIFE extends beyond its participating students, however, because SIFE also encourages these students to share this knowledge with their various publics. Students in local SIFE chapters essentially assume the role of an economic educator as they seek innovative methods to convey their economic knowledge to others in their communities.

On May 19, 1996 at Kansas City’s SIFE International Expo, the entry from the Pittsburg State University SIFE team - the “Four State Investment Challenge” - was selected as the 1st Place Winner of the Shopa Foundation’s Best Educational Project. The entry was selected in a triple blind reviewed process by three executives from 84 entries submitted for the special competition. The Pittsburg State University SIFE team received a 1st Place trophy and $3,000 in cash for this award winning project.

This winning approach to teaching high school students about the importance of the financial markets in a free enterprise system is serving as a national SIFE model that can be followed to educate high school students about financial and economic issues while simultaneously reinforcing this knowledge among the ‘student-teachers’ and allowing these student-teachers to use their unique talents to develop innovative methods to convey their knowledge to others. It can be used by other rural (or urban) schools to teach the importance of the stock markets in a creative, innovative, and fun manner and at a very low cost.

OVERVIEW

Approximately 500 United States colleges and universities participated in the Students in Free Enterprise (SIFE) program in 1995-96. Each April, the national SIFE organization sponsors regional competitions in 12 cities across the U.S. and one international location. Typically, each region has four or five leagues consisting of six teams each. A corporate judging panel selects two winners in each league who advance, along with other regional...
winners, to compete the next month in Kansas City for the SIFE International Championship. In a SIFE Regional Competition, students have a 30 minute forum to present the results of their free enterprise and entrepreneurial projects completed over the course of the school year. Approximately 90 Regional Competition winners advance to the SIFE International Expo. The top teams are featured in full page advertisements in several major publications. SIFE also sponsors several special competitions, separate from the main competition, that are sponsored by corporations or corporate foundations. One special competition is The Best Educational Project sponsored by the Shopa Foundation which carries a $3,000 cash award for 1st Place, $2,000 for 2nd Place, and $1,000 for a 3rd Place finish.

INTRODUCTION

“Most Americans know that there is no such thing as a free lunch. The problem is most Americans have never been taught why.” The National Council of Economic Education stated over forty-five years ago that, “youth had relatively little understanding of how our market economy functions even though they were expected to perform as productive workers, knowledgeable consumers, prudent savers, and informed investors.” Is the situation any better now? According to William H. Donaldson, chairman of the New York Stock Exchange, “If America were an economics class we’d all be failing.” In a recent Gallop survey, a self-assessment of respondents’ knowledge of economics resulted in eight out of ten rating themselves as fair or poor (Parliament, 1996). Today the shocking fact is that fewer than half of the high school students have studied economics. Results from an economic literacy test given by PSU SIFE to students enrolled in a business course at three public regional universities showed a high score of 75 percent and an average score of 65 percent. This means that most of the adult and high school population do not even comprehend the most basic of economic concepts and issues facing the country. “The true effect of economic illiteracy is both pervasive and pernicious.”

This lack of knowledge regarding economic issues and consequence comes at a time when the rate of savings as a proportion of disposable income by Americans is at a low of approximately 4 to 5 percent. Children who don’t see the importance of savings, do not save or invest for their future. “The price of economic illiteracy is more than this country can afford: Young people unfamiliar with the basics of saving, investing, the uses of money and credit.” PSU SIFE wanted to address the issue of American students’ apparent lack of knowledge about savings and investing. The result was the “Four State High School Investment Challenge.”

According to the National Council on Economic Education, “The only way to develop an economically literate citizenry is through the schools, in the classroom, one teacher at a time, one student at a time.” PSU SIFE recognizes that students learn best by doing, so they designed a project that offered area high school students the opportunity to participate in a simulation designed to give a “hands on” learning experience that is a realistic, fun, and competitive exposure to the stock market. For nine weeks students test their investment prowess against others as they managed a mock portfolio initially valued at $500,000. Students
teams were evaluated by return on investment and competed for prizes and prestige. While the concept of an investment game is not new to the educational setting, the PSU SIFE project was entirely developed and conducted by the PSU SIFE student members. This resulted in a learning experience for both the high school participates and the university students responsible for execution of the project.

The remainder of this paper is organized as follows. The next section describes the procedures used to implement this educational idea with the goal of providing the interested reader sufficient information so that they could use this project at their institutions. The results section presents the results of our pre- and post-test measures of the participants’ stock market knowledge and their ending portfolio values. The last section includes recommendations for improvements in future investment projects.

PROJECT IMPLEMENTATION

The “Four State Investment Challenge” began in fall 1995 and is now in its third year. Initially the Investment Challenge involved classes at two local high schools. The second year saw the Investment Challenge expanded to ten schools in Southeast Kansas. This year (1996-97) twenty-four schools from the four state area (Arkansas, Kansas, Missouri, Oklahoma) representing 33 classes participated in the Four State High School Investment Challenge.

The Four State Investment Challenge involved months of planning by the PSU SIFE students. During the months of September to December, an outline of the project was developed. This preparation included establishing a budget for the project; finding a major sponsor for the project; signing up schools to participate in the Investment Challenge; securing local sponsors for each school participating; establishing the rules of the contest; developing work schedules to handle daily transactions once trading commenced; and preparing public relations/media materials. The students arranged for the local CBS television affiliate to act as the major sponsor for the Investment Challenge. This affiliate agreed to air 141, 15 second spots from February through March, including regular stories on each Friday’s Evening News and Monday’s Morning Show.

The SIFE students then focused on prizes for the top three teams, teacher stipends, educational materials, and administrative costs before establishing a budget for the project. The budget was a key factor in securing individual team sponsors. Each team participating in the Investment Challenge is sponsored by a business in their community. Letters explaining the Investment Challenge were sent to high schools in the four state area of Arkansas, Kansas, Missouri, and Oklahoma asking if a business or social studies class would like to participate in the Investment Challenge. The response was greater than expected, with many school requesting that more than one class be allowed to participate. In fact, several high schools teachers contacted PSU SIFE requesting information after learning of the contest from colleagues.

By December a list of participating schools was finalized and included 24 schools in a four-state area within a 90 miles radius of Pittsburg State University. A PSU SIFE student was assigned as a liaison to each participating school. Local sponsors were then found for each
school and schools were informed as to their sponsor. Table 1 presents the participating schools for the 1996-97 investment challenge.

| Table 1: Participating Schools in the Four State Investment Challenge |
|---------------------------------------------------------------|
| St. Mary’s-Colgan High School, Pittsburg, KS                  |
| Webb City High School, Webb City, MO                         |
| Vinita High School, Vinita, OK                                |
| Siloam Springs High School, Siloam Springs, AR               |
| Franklin Technology School, Joplin, MO                       |
| Neosho High School, Neosho, MO                               |
| Carthage High School, Carthage, MO                           |
| Labette County High School, Altamont, KS                     |
| Galena High School, Galena, KS                               |
| Bentonville High School, Bentonville, AR                      |
| Riverton High School, Riverton, KS                           |
| Chanute High School, Chanute, KS                             |
| Miami High School #1, Miami, OK                               |
| Miami High School #2, Miami, OK                               |
| Miami High School #3, Miami, OK                               |
| Girard High School, Girard, KS                               |
| Oswego High School, Oswego, KS                               |
| Northeast High School, Arma, KS                              |
| Jasper R-5 High School, Jasper, MO                            |
| Bartlesville High School, Bartlesville, OK                    |
| Dewey High School, Dewey, OK                                 |
| Commerce High School, Commerce, OK                           |
| Pittsburg High School, Pittsburg, KS                         |
| Southeast High School, Cherokee, KS                          |

The next step for the PSU SIFE Investment Challenge Committee was to develop instructional materials for the participating teachers. PSU SIFE knew from the 1995-96 project that many of the teachers would need materials to supplement their limited knowledge of the stock market. To fill this need, PSU SIFE students prepared a 12 page set of teaching materials with overheads and pre- and post-tests. In addition, PSU SIFE purchased for each participating school the Wall Street Journal, and for each class the Classroom Edition of the Wall Street Journal.

Each high school teacher received a teaching packet including the instructional materials, a list of participating schools, rules and guidelines, fax cover sheets, and the Dartboard, SIFE, and Standard & Poor’s Top Ten Pick for 1997 portfolios. PSU SIFE recognized that the high school teachers were being asked to put in a considerable amount of
time on this project thus each high school teacher received a $50.00 stipend as a token for their efforts. Table 2 presents the contest time line and Table 3 the contest guidelines.

Table 2: Four State Investment Challenge Time Line

1. January 12 to 18.
   Delivery of teaching materials and Investment Challenge Packets to Schools.
   High school teachers administer pre-test (before instruction begins).
   High School teachers mail pre-test to PSU SIFE.

2. January 21 to March 21.
   Investment Challenge trading period.

3. March 23
   Final results and winners announced.

4. March 23 to March 29.
   High school teachers administer post-test and return the results to PSU SIFE.

Trading could occur from 8:30 a.m. to 3:00 p.m. so a school could call in buy and/or sell orders multiple times per day. Each transaction was logged as to the time it was received either by phone, voice mail, fax or E-mail. Transactions were entered by PSU SIFE students as time permitted, but the price used was the one that existed at the time the order was received by SIFE. We used the Fast.Quote listing on the Internet to determine prices.

The clerical process of checking price quotes and updating the data base was a learning experience for the PSU SIFE students; the trading volume initially seemed overwhelming. High schools were constantly calling to check on their standing, before determining their next moves. Any questions concerning transactions receive required PSU students to contact the high school to resolve the issue. PSU students found themselves working eighteen hour days to keep up with the paper work. By the end of the Investment Challenge the PSU SIFE students had developed work schedules and patterns to solve the bottlenecks created by the continuous trading. For both the high school students and PSU SIFE students, this instantaneous trading provided a glimpse into the real world complexities of investment management. Table 4 shows an example of a transaction report sent to a high school.

To make the contest even more interesting for the students, The KOAM Morning Show personalities selected a stock portfolio and tried to match wits with the students. Each Monday morning students could tune in to compare their team’s results against the TV personalities as well as other teams. For schools having multiple classes participating, the interschool competition adds initial incentive to perform at the highest level. PSU SIFE members created a Dart Board portfolio by throwing darts at the Wall Street Journal. They also created a portfolio consisting of ten SIFE National sponsors. Additionally, a portfolio of Standard and
Table 3: Guidelines for the Four State Investment Challenge

1. The trading period was to be from January 21 to March 21, 1997. Market hours are between 8:30 AM and 3:00 PM. Orders placed after the market closes will be processed at the stock’s opening price the following day.

2. Each team (class) will be given mock funds of $500,000. Any unused funds will be held in a non-interest bearing account.

3. Each teams (class) may make an unlimited number transactions; however, teams should remember that each transaction incurs a commission charge.

4. Commission charges or: 1) trades of $1 to $50,000 incur a 1% commission charge 2) trades more than or equal to $50,001 incur a 1/2% commission charge.

5. Teams must maintain a stock portfolio consisting of a minimum of five stocks, but not to exceed 15.

6. Trades require the following information: name of school, teachers name, company name of the stock, ticker symbol of the stock, what exchange the stock is listed on, the number of shares to be bought or sold and the price of the stock and/or range. Three methods are available for stocks to be traded 1) phone 2) fax 3) E-mail. Trades are executed at the time of the call or time logged on the fax or E-mail.

7. Each school on Monday morning will receive a summary of their portfolio’s performance and their overall rank in the challenge. KOAM’s Friday evening news and Monday’s Morning Show will announce the top ten portfolio performances.

8. At the Contest’s Finish the cash value of all teams (classes) portfolio’s will be calculated. The team’s will be ranked based upon return on investment. The highest ranking team would win. If a tie should occur for either first, second or third, trading between tied teams will be extended one day.

9. Teams will compete against each other, KOAM Morning personalities, a Dartboard portfolio, S & P portfolio, and a portfolio consisting of 10 SIFE sponsors. Only the high school teams would be eligible to win the contest.

10. Teams could win two ways: 1) by having the highest ranking ROI 2) by beating the ROI of Dartboard, S & P and SIFE portfolios. The first through third ranked ROI by teams will receive brokerage accounts to actually invest in the stock market. This is “real money” in which they may make a profit or loss. The first place team will receive a $1000 brokerage account, the second place team receives $500 and the third place team $250. The first place team also receives an expense paid trip to the Kansas City Board of Trade. Special prizes will be given to teams having a higher ROI than the Dartboard, S & P and SIFE portfolios.
Table 4: Sample Transaction Report Sent to Participants

| Date     | Time | Ticker | Stock Name     | Bought/Sold | Shares Traded | Price | Total Price | Commission | Transaction Price | Effect on Cash | Close | Current Value |
|----------|------|--------|----------------|-------------|---------------|-------|-------------|-------------|-------------------|----------------|-------|---------------|
| 1/24/97  | Open | INTL   | InterTel Corp  | Bought      | 430           | 17    | $7,418      | 74.18       | $7,492            | ($7,492)       | 12    | $5,053        |
|          | Open | PEP    | Pepsi Co.      | Bought      | 465           | 35    | $16,275     | 162.75      | $16,438           | ($16,438)      | 32    | $14,880       |
|          |      | WMT    | Wal-Mart       | Bought      | 650           | 23    | $14,869     | 148.69      | $15,017           | ($15,017)      | 30    | $19,338       |
|          |      | NKE    | Nike           | Bought      | 590           | 66    | $39,014     | 390.14      | $39,404           | ($39,404)      | 68    | $40,268       |
|          |      | KO     | Coca Cola      | Bought      | 675           | 57    | $38,644     | 386.44      | $39,030           | ($39,030)      | 60    | $40,247       |
|          |      | ORCL   | Oracle Corp.   | KILLED      | 0             | 41    | $0          | 0.00        | $0                | $0             | 39    | $0            |
|          |      | MSFT   | Microsoft      | Bought      | 250           | 95    | $23,781     | 237.81      | $24,019           | ($24,019)      | 97    | $24,188       |
|          |      | DAL    | Delta Air      | Bought      | 200           | 82    | $16,475     | 164.75      | $16,640           | ($16,640)      | 85    | $16,900       |
|          |      | PNCL   | Pinacle Micro  | KILLED      | 0             | 5     | $0          | 0.00        | $0                | $0             | 3     | $0            |
| 1/27/97  | Open | INTC   | Intel          | Bought      | 260           | 151   | $39,130     | 391.30      | $39,521           | $10,697,897    | 133   | $34,678       |
|          |      | MSFT   | Microsoft      | Bought      | 410           | 96    | $39,334     | 393.34      | $39,728           | ($39,728)      | 97    | $39,668       |
|          |      | NTK    | Nortek         | Bought      | 1245          | 25    | $30,503     | 305.03      | $30,808           | ($30,808)      | 23    | $28,013       |
|          |      | CEN    | Ceridian       | Bought      | 770           | 38    | $29,260     | 292.60      | $29,553           | $10,707,866    | 37    | $28,490       |
|          |      | PEP    | Pepsi Co.      | Bought      | 560           | 34    | $18,970     | 189.70      | $19,160           | $10,718,259    | 32    | $17,920       |
| 1/30/97  | Open | DAL    | Delta Air      | Sold        | 200           | 80    | $15,975     | 159.75      | $15,815           | $15,815       | 85    | $16,900       |
|          |      | PEP    | Pepsi Co.      | Bought      | 400           | 35    | $13,800     | 138.00      | $13,938           | ($13,938)      | 32    | $12,800       |
| 2/6/97   | Open | HSY    | Hershey        | Bought      | 250           | 44    | $10,969     | 109.69      | $11,078           | ($11,078)      | 52    | $12,938       |
|          |      | PEP    | Pepsi Co.      | Sold        | 400           | 32    | $12,750     | 127.50      | $12,623           | $12,623        | 32    | $12,800       |
|          |      | NKE    | Nike           | Sold        | 590           | 65    | $38,498     | 384.98      | $38,113           | $38,113        | 68    | $40,268       |
|          |      | INTC   | Intel          | Bought      | 250           | 157   | $39,313     | 393.13      | $39,706           | ($39,706)      | 133   | $33,344       |
| 2/28/97  | Open | INTC   | Intel          | Sold        | 260           | 138   | $35,750     | 357.50      | $35,393           | $35,393        | 133   | $34,678       |
|          |      | BRKa   | Berkshire Hath | Bought      | 3             | 35462 | $106,386   | 531.93      | $106,918          | $10,630,500    | 37300 | $111,900      |
|          |      | KO     | Coca-Cola      | Sold        | 675           | 62    | $41,513     | 415.13      | $41,097           | ($41,097)      | 60    | $40,247       |
Table 5: Benchmark Portfolios

| Dartboard          | SIFE            | S&P Top 10 for 1997       |
|-------------------|-----------------|---------------------------|
| Aldila            | AT&T            | 3 Com Corporation         |
| Alza              | American Express| Columbia/HCA Healthcare    |
| Casey’s General Store | American Greetings   | Conseco                   |
| Graco             | Coke Bottling   | Enso International        |
| Haggar Corporation | General Electric| Informix Corporation      |
| Manugistics       | Leggett & Platt | MBNA Corporation          |
| Panavision        | NPC International| Meredith Corporation    |
| Polyvision        | Rubbermaid      | Pogo Producing            |
| State Financial   | Staples         | Rhone-Poulenc Rorer       |
| Sun Energy        | Wal-Mart        | TYCO International        |

$500,000 will be invested evenly in each of the ten stocks at the start of the challenge, and this portfolio will remain unchanged throughout the challenge period. A 1 percent commission will be charged to both the purchase and the final sale of each stock at the beginning and end of the challenge.

RESULTS

From the point of view of the high school teachers and students, the investment challenge provided an opportunity to experience stock market dynamics. While tracking their stocks students were forced to pay attention to what was going on in the economic environment. One participating teacher best reflects the prevailing sentiment of the participating teachers:

"I learned a great deal myself. I have never actually been exposed to the Wall Street Journal or the buying and selling of stocks. I feel like I have gained a valuable information and understanding through the SIFE project."

The teacher when on to say that the assignment was exciting for the students, they began to feel as if they were in control of the $500,000. She stated that the students, “... were very critical of every stock that was purchased, as well as discussing thoroughly each stock that was sold.” Thus, students not only learned about the stock market, they also learned importance skills necessary to the successful functioning of a group. Pre- and post-test results also provide documentation of student learning. These results are presented in Table 6.
The financial results for the participants were also impressive. Table 7 reports the ending portfolio values for the 33 teams, ranked from low to high with the S&P portfolio serving as the benchmark. The most striking feature of the results reported in Table 7 is that all 33 teams beat the S&P portfolio.

Table 6: Pre-test and Post-test Comparisons

Table 7: Portfolio Values Relative to the S&P Top Ten
What did the PSU SIFE students gain from participation in the Investment Challenge project? This experientially-based learning experience gave the students first hand experience running an educational project. The students were entirely responsible for all logistic problems involved in staging and executing the project. One example would be of the time involved in receiving buy and sell orders, updating the team data base, and notifying teams of their standings and/or problems with the buy/sell orders. As is true in most teaching situations, the PSU SIFE students learned more about the functioning of the stock market by having to explain its idiosyncrasy to the high school students and their teachers. Negotiating skills were developed and “fine tuned” by the students in arranging team sponsorships and in negotiation with KOAM for their major sponsorship of the contest. Team work was the key to a successful Investment Challenge; student truly know what it is like to work as a team member and team responsibilities inherent in pulling off a successful project.

CONCLUSION

While this project explains the stock market and how it functions, it tended to emphasize the quick return which can be made in playing the market. Unfortunately the Investment Challenge is constrained by the use of classes whose composition may change from semester to semester, hence the nine week limitation. An extension of this project would be to establish high school Investment clubs so that a long-run approach to investing could be used. The project could also be expanded to allow participants to invest in alternative investments, such as options, futures, or commodities.

This is only the third year for the Investment Challenge and, although we have tried to make it as realistic and educational as possible, we realize there is always room for improvement. PSU SIFE encourages any questions or suggestions. We can be reached at (316) 235-4574, or through e-mail at jfreund@pittstate.edu.

REFERENCES

National Council on Economic Education, http://www.nationalcouncil.org/case.html ; index2.html ; about2.html.

Parliament, C. 1996. Economic Literacy: An Important Goal. Choices. 4th Quarter: 4-6.

ENDNOTE

1 A copy of this material is available upon request from PSU SIFE at 316.235.4574 or by E-mail at jfreund@pittstate.edu.