Innovative Higher Education, Vol. 21, No. 3, Spring 1997

Simulations: Using Experiential Learning to Add Relevancy and Meaning to Introductory Courses

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ABSTRACT: Over the past two years the authors have provided experiential learning in the form of a simulation exercise to help 240 college students relate personally to the foundations of education. Introductory courses, with a preponderance of facts and breadth of content, can easily overwhelm students. The simulation not only energized the students but also personalized an in-depth understanding of educational issues. This theoretical knowledge was applied practically, a link which may often be missing in many introductory courses.

College students usually approach introductory courses with high expectations and an eagerness to become involved. If instructors limit instructional approaches to lectures or guided discussions, they risk losing this original enthusiasm of their students. Even if instructor presentations are dynamic, students often struggle with transferring the factual information to real life applications of the discipline. In addition, the preponderance of information can overwhelm those students who enter introductory courses with naive ideas and limited experience in the field. The challenge for instructors of such courses is to make the foundations of a discipline relevant and meaningful

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to students. Experiential learning helps accomplish this goal by providing the students with a chance to apply theoretical knowledge of the foundations to practical, real-life situations.

One definition of experiential learning is "learning which involves the whole person in experiencing by simulation or in a real setting that which is done or happens in the real world" (Downs, 1992, p. 30). Thus, such learning would take the college students outside of the college classroom world into the real world by engaging them in either simulations or real-life activities. Although the particular simulation described below relates to introductory education courses, comparable simulations can be arranged in other disciplines. In the behavioral sciences, students can be given a relevant problem and asked to collect and analyze data as a scientist would do in the field. In history, students can be assigned situations to recreate incidents and judge historical decisions. In the humanities, students can be asked to transform novels and short stories into skits and plays in order to understand the complexities of plot, character, and historical setting. In math, students can be given real-life problem solving situations. In the medical professions, students can be expected to do simulations acting as patients and medical practitioners.

In order to make the foundations of education relevant and meaningful to students at a small liberal arts college in upstate New York, the authors have provided experiential learning in their Introduction to Education classes for the past two years. An extended exercise culminating in a school board meeting simulation was designed to give students the opportunity to examine carefully the varied roles of stakeholders in a typical school district. The simulation exercise was also designed to challenge students to gain experience with complex educational issues such as the funding of schooling and the inequity of resources. The authors believed that such involvement with specific examples of how education operates in the context of the American society would help students to understand more clearly the complexities of American education.

The Experiential Learning Model

Research literature supports active learning, including experiential learning, in the classroom (Bonwell & Eison, 1991). Sheckley (1985-86/1989) sees the learning process as an "active process of grasping

and transforming information" (p. 280). He states that the emphasis in adult learning programs should therefore not be on memorizing a body of knowledge but rather on "stimulating inquiry and skill in the process of knowledge getting" (p. 278). Adult learners and even college students of traditional age bring years of life experience to the classroom. Thus, this process of knowledge getting usually consists of extensions and/or modifications of previous learning.

Experiential learning theorists see meaningful learning as emanating from the learner's interaction with experiences which cause learners to reflect on prior ideas and create new ones. In fact, Dewey (1938, p. 69) describes learning as an interactive experience with one's own environment. He states that the experience must tie in with previous learning and project the individual into the future as well. According to Dewey, the experience must first hook on to the learner's personal history if the new experience is going to become a meaningful one.

Rogers (1959, p. 236) adds that the task of the teacher is to create a facilitating classroom climate in which significant learning can take place. As the teacher plans for a new experience, it should be one which poses a problem for the learners in a context in which the learners feel comfortable. Therefore, choosing a problem-solving experience and placing it in an appropriate context are viewed as critical factors in the success of experiential learning.

The experiential learning model of Kolb (1984) provides a theoretical framework for decision-making concerning the choice of instructional activities for a course. The model starts with the initial process of concrete experience, the learner's personal involvement in a specific experience. Concrete experience is then transformed by reflective observation, the search to find meaning from many viewpoints. Reflective observation leads to abstract conceptualization, the drawing of conclusions from one's own and others' theoretical constructs. Finally, abstract conceptualization is transformed by active experimentation, the decision made by the learner. Kolb's model is a cyclical one; active experimentation leads to further concrete experience.

Svinicki and Dixon (1987) apply Kolb's experiential learning model to the classroom learning environment. Starting with concrete experience and continuing with reflective observation, abstract conceptualization, and active experimentation, they suggest a selection of instructional activities for each of the processes. They recommend that instructors consider "constructing learning sequences that lead

students through the full cycle," thereby offering "more complete learning than can be gained from a single perspective" (p. 142).

The authors of this article used such a continuous cycle to achieve the following goals set for the Introduction to Education course.

- Students will understand the areas of responsibility and influence of the federal, state, local, and school educational systems.
- Students will understand the areas of responsibility and influence of the stakeholders in education.

Using Kolb's model (see Figure 1), the authors started phase one of the cycle, concrete experience, with a student assignment to attend a local school board meeting. The next few classroom periods promoted phase two, reflective observation, through discussion and reflection upon what the students had seen and heard. Phase three, abstract conceptualization, was stimulated by the process of researching and writing a paper for the classroom simulations of a school board meeting. Phase four, active experimentation, was the culminating event of the school board simulation exercise. Students, role playing various members of the community, made proposals asking for funding from the school board members.

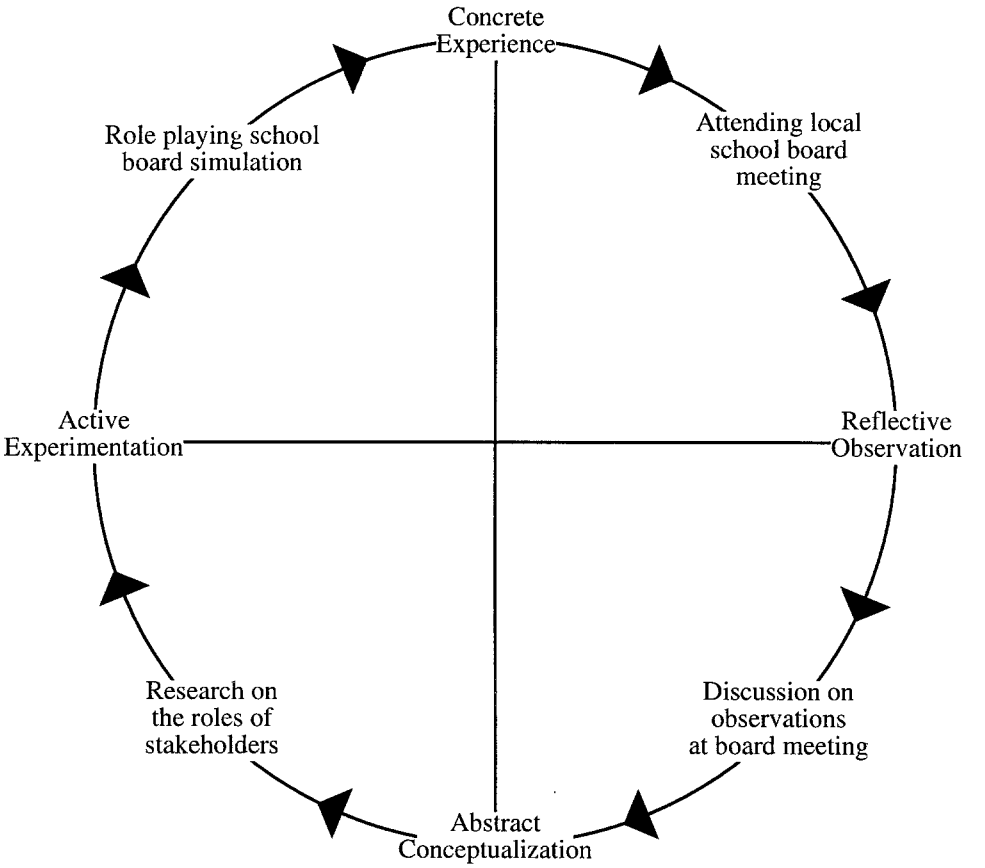
Implementing the Experiential Learning Model

The simulation exercise was introduced as a means of meeting course objectives by giving students the opportunity for meaningful involvement in a typical district decision-making process. Students were given the following scenario within the first few class sessions:

> The Simeon Benjamin School District has received $150,000 of state aid to be used as enrichment for district students, PreK-12. The School Board will convene to hear parents, students, and any other stakeholders who wish the money to be spent in specific ways. Attached to the scenario was a list of roles which the authors had developed with careful attention to representing the many and diverse views of the stakeholders in education (Table 1).

The Simeon Benjamin School District, a fictitious one, was described as one experiencing a recession like many others in America. Students were told that district taxpayers had repeatedly voted down tax increases and, even though at present all programs were adequately funded, the Simeon Benjamin School District no longer had

Figure 1
Use of KOLB's Model



any "extras." Students were also given simple demographic data (Table 2) of the district. Students were told that other particular information could be created by the person playing the stakeholder's role but that the information must fit into the parameters of the data already given.

Table 1
Stakeholders

List of Possible Stakeholders in an Educational System

Superintendent	Elementary principal
Secondary principal	Special education teacher
Teacher of gifted and talented	Art teacher
Physical education teacher	Elementary education teacher
Secondary education teacher	Union president
Psychologist	Librarian
Counselor	Social worker
Elementary education student	Secondary education student
Student labeled physically handicaped	Student labeled gifted
Parent of student labeled gifted	Parent of student in regular education
Parent of student labeled mentally handicapped	

Phase One

A local school board meeting provided the initial concrete experience for the first phase of Kolb's experiential learning model. Students were given copies of the agenda and encouraged to take notes of the proceedings. They were also asked to record what they could deduce about the stakeholders and persons actively involved in or even just attending the meeting. They were reminded to examine

Table 2
School District Data

Data for the Fictitious "Simeon Benjamin School District"

Student Population: Total: 5,100 Seventh through twelfth grade; 3,500 Special Education: 1,200 Gifted and Talented: 500	Funding: All programs are adequately funded. Budget cuts, due to voters turning down tax increases, have caused most extras to be eliminated
School Buildings: Elementary: 9 Secondary: 2 Junior Highs (Grades 7 and 8) 2 Senior Highs (Grades 9-12)	Average Class Size: Elementary: 24 Secondary: 28

the roles adopted by the various people and the issues they presented and discussed.

Phase Two

Classroom discussions in the days after the school board meeting were an essential part of phase two, reflective observation. The student-led discussions helped to transform each student's personal understanding of the school board meeting into a more comprehensive understanding of the American educational system as it operates at the local level. Discussions about the local stakeholders and other possible stakeholders mentioned on the authors' list (see Table 1) helped to clarify the role choices for the students. In subsequent class periods, the students then selected their individual roles which would be researched to discern the stakeholders' duties and special interests. No duplication of choices was allowed, but students who wished to represent a position not on the list could do so.

The students also needed research, interview, and collaborative skills. The authors designed a variety of class activities to meet these needs. For example, one activity dramatized the inequities in funding between school districts with very different property values. In another, students re-enacted a recent local school budget controversy and compared their outcome to that of the real budget vote. The authors conducted brainstorming and sharing sessions related to possible information sources and role played interview skills. To build collaborative skills, students worked in cooperative groups for some class activities such as those mentioned above. Class work time was also given to help form and develop proposal partnerships among those with common ideas on how to spend the grant money.

Phase Three

Once they had the school board meeting and the classroom discussions as common shared experiences, the students were ready for phase three, abstract conceptualization. This involved the process of continuing to prepare for the simulation through researching the stakeholder's role and writing a grant proposal to present during the simulation.

The research involved personal interviews as well as traditional information-gathering in the library. Students were advised to set up interviews with real life stakeholders as early as possible. Many stu-

dents used mid-term breaks to contact people in their own home communities. For example, one student interviewed his former music teacher, then visited recommended music stores to price instruments, music sheets, and accessory equipment. Another interviewed the teachers' union president who suggested release days for in-service technology training. One or two procrastinating students found themselves getting only a few minutes of interview time—a valuable practical lesson about the heavy commitments of educators.

The writing portion, a required paper on the individual's role in the simulation, became an important part of the abstract conceptualization phase because the writing process pushed the students toward reflection and careful planning before the simulation. The assigned paper consisted of a description of the position or role chosen and the detailed grant proposal to be presented in the simulation. The students were often insightful in writing about the stakeholder's role. For example, one student commented as follows:

> The role of the librarian is not simply checking out books but [sic] the librarian is an educator, a financial wizard, curriculum creator (having a more direct hand in what students are exposed to) and is presented with the difficult task of infusing video students with a love of books.

Another student discussed the liaison role of the superintendent:

> The superintendent has two specific roles: 1) to work with numbers to develop ways to manipulate the budget, 2) to make sure the people (students, parents, etc.) of the schools are at least heard by the school board. The super[intendent] is a go-between to help fix the gap between special interests and the board. It is far from a powerful position if the board is uncooperative.

At the end of each term, assessment forms using open-ended questions about the simulation exercise revealed how important the process of doing real-life research was to the students' learning. One student described the process as follows.

> I learned how many things are involved in implementing a new program, how costly the resources for these programs can be, where to find out how much certain items cost, how varied and demanding the job of a counselor is and how despite what the counselor might like to spend the time doing (counseling) other tasks and paperwork distract from it.

The authors cautioned the students that the actual presentations during the simulated school board meeting had to be relatively short, highlighting only the major points. The proposal section of the paper

allowed the students more space to explain and elaborate on their proposal. The paper therefore served as the place for more substantial arguments backed up with research, which included statements from the interviewees and a detailed realistic budget.

Phase Four

Phase four of Kolb's model, active experimentation, was represented by the school board simulation. Upperclass education students who had already experienced the simulation acted as school board members. They were recruited in the Instructional Strategies classes and were paid a nominal fee for participation in the week-long simulation. Three role players seemed to be a sufficient number to provide a realistic picture of a school board's actions. The school board role players were coached in advance by the authors to act appropriately as school board members, take notes, ask pertinent questions, and be ready to make decisions.

During the simulations, students became more and more involved in their roles. The school board members provided comments and questions to prompt more information from the presenters or, in some cases, to stump them. In some cases, the discussion got heated. Presenters reported on the simulation assessment forms that they soon learned:

> . . .when presenting a program, you need to be very well prepared. You need to think of all of the options and be ready to defend yours as the best option. You need to fully support your proposal and be ready to defend it and promote it. You need to carefully describe everything and assume nothing.
>
> If you want something in the budget you have to be very persuasive. One needs to research and prove that the item is necessary. It also helps to have support from others (the more people asking for something the better) . . . I wish I had "drummed up" some support for my program.

Some of the less well prepared students found that the board members "could be harsh when asking the people questions, picking holes in our defenses." Other students were disappointed or even angry when their proposals were not given the recognition they had expected. They learned that "people do not value the same things—what's essential for one could be excessive in another's eyes." They also noticed that people's beliefs and perceptions had a good deal to

do with the decision-making: "I saw how individual philosophies determined what the community would support."

In addition to learning something about presenting persuasive arguments, students also started recognizing the relationship between what they were doing and what community stakeholders and school board members do on a regular basis. Comments both during the simulations and afterwards indicated that the students were developing a more comprehensive understanding of real-life educational foundations and forces. A number of students commented on the role of politics in educational decisions:

> I learned a bit about politicking which, coming from a small, old-fashioned rural school district, is not uncommon. You have to learn how to deal with many different personalities.

> I learned the large role of politics in education... the how to's and the necessity of "playing the game" (politics).

Achieving the Course Goals

Overall, students indicated that the simulation exercise helped them achieve the two course goals mentioned earlier. First, they gained a more in-depth understanding of the areas of responsibility and influence of the various educational systems in the United States:

> I learned that asking for extras from the school board can be very frustrating and that money is such a factor in the board's decisions that they try to get as much outside funding as possible.

Second, students also indicated they understood more clearly the areas of responsibility and influence of the stakeholders in American education:

> A school principal should involve his/her teaching and non-teaching staff to run the school smoothly. [A] sharing type of leadership is more recommended. It strengthens [the] principalship.

> I learned that everyone had needs and that school boards have really tough decisions when it comes to situations such as our simulation. The school board also has very good compromising abilities.

Others discussed their new appreciation of the ongoing efforts needed for decisions about education:

> Yes, I did see the district board meeting, but being involved in a simulation made me really realize what was involved in the whole process along with each individual's job.

A few students commented on the reactions of the people they interviewed for their paper and presentation. The students were interested to find that the educators with whom they talked were very supportive of the simulation project:

> When I was researching my role, I spoke with my high, school band instructor, who seemed very impressed that the class was involved in such a "practical" project—as this kind of situation is something she has had to deal with several times.

A number of students realized that everyone is a stakeholder when education is involved:

> I enjoyed participating in the simulation and think that others not in education programs should participate in this type of thing because decisions by the school board will affect a whole community, not just the schools and the children attending them.

Overall, students seemed able to transfer their learning from the simulation exercise to the real world. Their comments indicated that they not only understood the dynamics of the classroom simulation itself but also how the simulation either resembled or differed from what they might encounter as teachers or even members of the society:

> I learned that although we have an idealistic and somewhat sheltered classroom environment the majority of people that we, as teachers, will encounter will not have the philosophy and outlook that we (I) feel is necessary for fruitful education.

> I was very impressed with the school board and the atmosphere. It was easy to feel like [sic] you were actually at a meeting. The board asked excellent valid questions. I also thought the final result was fair and manageable. The things I did not agree with at first (i.e., P.E. teacher) I understood today [during the post-simulation discussion].

When asked about ways to improve the simulation exercise, students in the early classes commented about the need for more specific information on the district. This was provided in subsequent classes, as mentioned earlier. One student suggested using "students who participated in this [simulation] to sit on the school board for next year's simulation." This suggestion was adopted and met with approval in the classes. Another thoughtful suggestion for future simulations involved the format of the simulation:

> I think more use of parliamentary procedure and more debate with participation from all would definitely enhance this project. I liked the post-decision explanation.

The students also expressed their appreciation of the project itself:

> I think it was a good project because it got us involved and helped us learn about the education system in our society.

> I feel that I learned more from this exercise than I have in any of my other classes for the entire year.

Discussion

Students must do extensive research on their parts in order to get the maximum benefit from the assignment. Simulations involve role playing, and to be successful the simulations must be based upon careful and accurate research done in actual communities. In the case of the school board simulation, students are expected to interview stakeholders they plan to represent. Since community investigation and personal interviewing can be an intimidating assignment especially for first year students new in the area, the instructors urge students to use their home communities as well as the local school district. A number of students contact their old schools, asking principals and teachers for information, suggestions, and names. For those students who prefer to use the local district in the college community, the instructors provide contacts when necessary. The most successful papers and presentations seem to combine community research, library research, and student collaboration.

Instructors need to provide time for students to create partnerships, interest groups, or even coalitions. In all three classes, parts of class periods are designated as time for student collaboration. At these times, the instructors act as facilitators only, allowing students to express personal interests, share ideas, and negotiate with each other. Realizing the importance of working with others to achieve a common goal does not come automatically to all students. Without the classroom provision for group work time, students are less likely to form collaborative groups, and the simulation is in danger of becoming merely a series of unrelated presentations.

Conclusion

The authors have found using experiential learning in the Introduction to Education course valuable in helping students understand the personal relevance of course foundations. Kolb's experiential learning model provides a theoretical basis for any simulation and its related activities. In addition, the model offers an appropriate way for students to reflect on their own learning and the relationship of that knowledge to the complex structure of American education.

Two years of using school board simulations, involving approximately 240 students in total, have given the authors strong evidence of student commitment to the experiential learning process and of student growth in the understanding of educational foundations. Similar results could be anticipated in other disciplines when simulations are used with students in introductory courses. The authors will continue to investigate long-term effects of the courses in the whole education program.

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