THE SIMULATION HAPPENING

Called upon to demonstrate their skills,
They give it their very best.
Injections, theory, labs and patient caring
Are all put to a real life test.

Students freeze with fear when at first
They encounter real people in need.
But they quickly mobilize and summon
The internal resources needed to do the deed.

They are Medical Assistants on their way
To an exciting new career.
They'll join medical teams throughout the city
Without a lot of jitters and fear.

Because they have been trained and rehearsed
They are ready to go.
They are filled with confidence and pride
Because they know what they know.

And what they know is enough,
Of this they are quite clear.
For they have learned how to learn and
This they'll remember as they go out from here.

Carol Walters
April, 1997

The Role of Simulations in Holistic Career Education

Introduction

The reception area in the family practice clinic is filled with patients who have appointments. One medical assistant in the back office is carefully wrapping a blood pressure cuff around a patient's arm. In the lab, another medical assistant is giving an EKG the doctor has ordered. The exam rooms are filled with patients whose charts have been hung in the holders on the door.

Suddenly the front door to the office swings open and the medical assistant at the front desk is confronted by a person holding a bleeding hand out to her.

"Help. I've cut my hand with the paper cutter at work. I think it is a deep cut. Please help me," the hysterical patient pleads.

The medical assistant at the reception desk rushes the patient to an exam room, where another medical assistant quickly slips into her protective gloves, and begins cleaning the wound in preparation for the doctor's examination. The doctor prescribes a tetanus injection and stitches. The medical assistant assisting the doctor immediately prepares the mayo tray with instruments needed for the procedures.

At the front desk, the telephone rings steadily with calls coming in on both lines.

"EMI Associates Family Practice, this is Laura, how may I direct your call?" answers the greeter.

"This is Mrs. Preston, I have a fever and chills. I need an appointment to see the doctor today," Mrs. Preston says feebly.

"Please hold while I transfer your call to appointment scheduling," Laura replies.

"EMI Associates Family Practice, this is Laura, how may I direct your call?"

"This is Mr. Frost. I received a Medicare statement today that I just don't understand. Can someone please tell me what I owe?" the caller begs.

"Please hold while I transfer you to Accounts Receivable, Mr. Frost." Laura transfers the call to the medical assistant handling patient accounts and insurance.

When the phone stops ringing for a few minutes, Laura creates a new patient file for an unexpected walk-in patient. She calls scheduling to get the patient squeezed into the doctor's tight schedule.

Mr. Jones, the walk-in patient, is asked to fill out a medical history form and to provide his insurance card so Laura can make a copy for the files.

Nervously jiggling the keys in his pocket, Mr. Jones asks, "Can the doctor see me soon? I have to return to work. I'm being docked for every minute I'm off the job."

"We are going to work you in when possible, Mr. Jones. You can help by filling out these forms for us," Laura replies calmly.

The medical assistants in the family practice clinic described above are students who have just completed their theoretical, clerical and clinical skills training. The doctor is their instructor. The patients are faculty, staff and students who have been assigned a variety of roles. EMI Associates Family Practice is a medical office simulation where students have an opportunity to apply their critical thinking skills while providing hands-on total patient care for one week. Student employees experience the pressure-cooker environment of phones ringing, patient visits, conflicting demands, and the challenge of working efficiently and effectively with

others on a team as they work in a realistic medical office setting at their school.

Quotes From Simulation Participants

"It's reality. Now I understand how important it is to run an office with teamwork. This simulation has made me more confident. I didn't realize how much information I retained and am anxious (not apprehensive) to start my externship."

ICM - Pittsburgh, PA

"I was proud of the way I handled patients on the telephone."

Ohio Institute of Photography & Technology - Dayton, OH

"Fantastic! I was impressed with the realness of the simulation. It helped me get a feel for what the real world is going to be like. I now know I made the right career choice."

Dominion Business School - Roanoke, VA

"I liked the hands on. No better place to learn from a mistake!"

Ohio Institute of Photography & Technology Dayton, OH

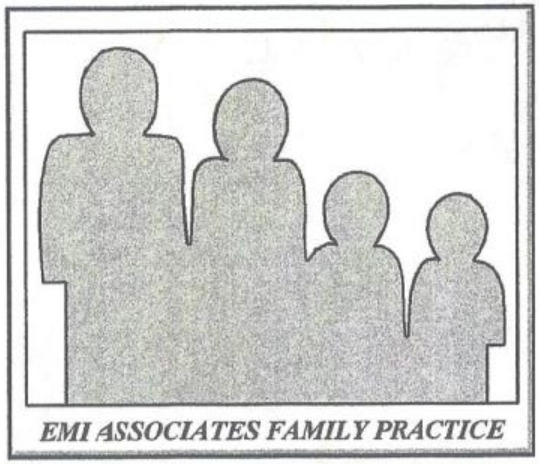
"It taught me to expect the unexpected and that I can do the procedures and have confidence enough to do them."

Dominion Business School - Harrisonburg, VA

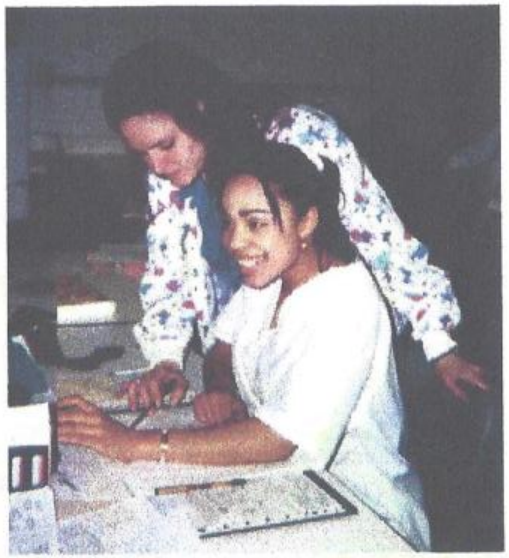
"I felt more self esteem after performing this week."

Dominion Business School - Roanoke, VA

For Information Contact
EMI Eastern Region Office
Carol Walters
2909 Bay to Bay Blvd. Suite 400
Tampa, FL 33629
813-835-9819



Medical Office Simulation for Medical Assistants



A Confidence Building Team Experience

The Simulation Provides An Opportunity To:

- ❒ "Put it all together" in a one week culminating experience in the last quarter of the Medical Assistant program before internship.

- ❒ Further develop administrative and clinical skills previously learned in classes and labs under the watchful eye of their instructors.

- ❒ Practice critical thinking skills and hands-on total patient care in their own model family practice office.

Medical Assistant Students Will:

- ❒ Work as a Medical Assistant in a realistic setting.
- ❒ Function in a variety of roles as a member of medical office administrative and clinical teams.
- ❒ Experience the pressure-cooker environment of phones ringing, patient visits, conflicting demands, and the value of working efficiently and effectively with others on a team.
- ❒ Utilize all of their newly acquired Medical Assistant skills training to provide care-filled health care to their patients.

Simulation Components Include:

I Set-Up Manual
- Overview
- Orientation
- Evaluations
- Job Descriptions
- Supplies List

II Employee Activities
- Patient Role Plays
- In-basket Tasks

III Business Forms
- Front Office
- Clinical
- Insurance

IV Medical Office Procedures Manual
Describes general office procedures and practices used at EMI Associates.

V Video Presentation
An introduction to the simulation

The Need for Simulations in Career Education

When something very valuable is at stake, we try to leave nothing to chance in the training of those responsible for the enterprises. If a multibillion dollar space craft is to be launched, we send an astronaut who has already flown millions of miles in a simulated shuttle. If a doctor is going to perform delicate surgery on a human being, we ensure that she has already performed the procedure many times in a virtual simulation. Before an important football game, we have the team practice the strategies they will use against their own second string who represents the competition in a simulated game. When the cost factor for making mistakes is great, simulations are used to lower the risk by providing a hands-on learning experience. Students in career schools need this hands-on learning opportunity.

Students grow in knowledge and skills as they attend school. After they complete training in the learning environment, they go out into internships or jobs. Something very valuable is at stake as they go forth to apply their new skills. Their self-esteem is at stake! The fear and fascination of that new job are foremost in their minds. They enter the work place wondering, "Will I be able to do it?" "Can I succeed?" "Do I know enough?" "Will it all come together for me when I need it?" The cost factor of failing on the job is high.

Schools that have trained students for careers cannot afford to take a chance on whether these students will fail in their internship or while they are on the job for which they have been trained. Students need an opportunity to participate in a simulated workplace while at school where they can practice technical and critical thinking skills. They need the opportunity to mimic the duties they will perform in their new jobs and develop skills in solving problems that could arise on the job. What better way to help students develop a business style, habits, and

discipline that will enable them to succeed in the "culture" of their chosen career field than through a simulation? Successful participation in a simulated workplace at school would boost self-confidence and help each student discover their strengths, their talents, and the *hidden winner* inside each of them.

Veronica's Story

Veronica F. discovered the *hidden winner* inside when she attended a short-term office career training program known as Training, Inc. Part of her training included a two-week intensive business office simulation in which 30 students ran a company called Lester Hill. She was asked to describe her training experience at graduation. A description of the setting and the speech she prepared and delivered follows:

There was soft music playing as the room began to fill with people arriving for a business lunch graduation. The dining tables were set in rounds of eight or ten with pink linens and flower centerpieces. Everyone was dressed in their Sunday best. There were graduates and guests from the business community mingling together near the punch bowl. One could not tell the students from the invited guests.

"My hands are sweaty," Veronica said quietly. "I'm really scared, but I want to share my thoughts with them. I'll do it!" Veronica smoothed her skirt nervously as she took her seat at the head table next to the Vice President of People's Gas.

Faculty members had arranged place cards at each table to ensure that graduates and invited guests from the business community would be seated together at every table. During the meal the guests had an opportunity to meet the graduates and welcome them to the business world. The graduates had an opportunity to get to know the guests and to learn something about

the companies they represented.

Following a short presentation on the uniqueness of the graduating class by the program director, Veronica was introduced and invited to speak. Her white carnation corsage was striking against her red suit. She took a couple of deep breaths and summoned the courage to walk to the microphone when she was introduced.

> Good afternoon, my name is Veronica F. and I would like to talk a little bit about Training, Inc. and what it means to me. Training, Inc. is an office job simulation program. Its purpose is to view the trainee as an individual and to assist the trainee in reaching her or his potential.
>
> I want to share with all of you my personal experience. Training, Inc. has taught me more than skills. Most schools can teach you skills if you are receptive to them. One can learn skills at most schools if one puts forth the effort. But Training, Inc. is a chance of a life time. I gained a knowledge that is beyond skills. I think this is because Training, Inc. is created by people who care, run by people who care, and participated in by people who care.
>
> It taught me a lot more than I bargained for. I learned more about myself than any other place has shown me. Training, Inc. was a chance for me to examine my life. I came to realize how low my self-esteem and self-confidence were. I think the real answer lies within us but many times we refuse to see it.
>
> Training, Inc. woke me up, and took me out of my cocoon. The one I created. It helped me gain back my self-confidence. The old Veronica would never be standing here talking to all of you.
>
> Training, Inc. made learning interesting. On behalf of the graduates, I would like to thank all of the trainers for the wonderful help they have given us. Their skills went beyond technology. They touched us all with a magic wand of hope and promise.
>
> Training, Inc. has taught me many skills. I now feel ready to go out into the business world. But most of all it has revealed to me the hidden winner within me.

Stories such as Veronicas are the treasures of educators. One of my favorite *Successories* quotes is "A mind once stretched by a new idea, never regains its original dimensions." Ensuring that all students in career education programs have an opportunity to stretch and experience themselves as winners and competent employable individuals is the challenge. Another reason to offer an opportunity for experiencing success is that success is contagious. When a student succeeds in one area of their life, that sense of accomplishment can spread to other areas. When they come to see themselves as capable performers in the work place, they can transfer that capacity to relationships in their personal, family, and community life. The whole person is affected when their self-image is transformed through success and achievement.

EMI Associates Family Clinic Medical Office Simulation

The EMI Associates Family Clinic Medical Office simulation was developed for students who have completed their Medical Assistant clinical and administrative classroom training and are ready to begin internships in doctors' offices, clinics, and hospitals. The objective of the simulation is that students will demonstrate confidence in their clinical and administrative skills abilities, and understand the importance of attendance, dependability, working well with others, and their role in the overall system of a medical office. It is anticipated that participants will feel motivated and competent to move into their internship positions and new careers.

EMI Associates Family Practice simulation was briefly described in the introduction at the beginning of this section. A pictorial review of the first field test in Roanoke, Virginia follows on the next three pages. Student evaluations from the field tests in Dayton, Ohio, Pittsburgh, Pennsylvania, Harrisonburg and Roanoke, Virginia are attached in the Appendices.

The Rationale

The importance of simulations as a teaching technique has been recognized for a long time. Sophocles in 400 BC said, "One must learn by doing the thing, for though you think you know it-- you have no certainty, until you try." Simulations are needed because there are some things people just can't learn from words or pictures. Schools can simulate a day or week or month in the life of someone working in the student's chosen career field. A simulated workplace provides an authentic assessment tool that goes beyond student exam scores which test how well someone has memorized facts about a particular subject. Simulations are also helpful because the real world is experienced as a whole, and the simulation environment allows students to get beyond the boundaries of individual academic subject areas and see the big picture.

In a simulation, students are provided with an opportunity to learn by doing as they apply their new skills in a realistic job setting. They can try out developing skills and practice critical thinking by experiencing a series of problems in the environment in which those problems might arise in their jobs. Often, as a result of the "hands-on" approach to learning, students learn to produce quality work and create their own standards of personal excellence.

The research project will explore:

* The role of simulations as a teaching technique to enhance self-esteem - Simulations allow students to "put it all together" and perhaps discover they have a "knack" for something they may not have realized before. Students with low self-confidence can experience that they do have multiple skills.

* The research on knowledge retention gained through simulation teaching methods -

Students in a simulation are active rather than passive. Studies have shown that we forget knowledge learned very rapidly. A study conducted at a college level by Tyler (1949) showed that "50 percent of the material known when the student finished a college course was forgotten within one year and 80 percent had been forgotten in two years." Tyler's study demonstrated that one condition for retaining new knowledge was to use it in daily life. He believed this not only reduced the amount of forgetting, but also increased the amount of knowledge acquired while taking the course. Simulations can provide an opportunity to use newly acquired skills and knowledge in the context of the student's work and thus increase retention.

* The use of simulations in a variety of industries - Simulations are being used in industry today, why not in schools? For example, Peter Carbonara (1996) reflects the thinking of business leaders when he states that the best way to evaluate people is to watch them work. He describes how BMW built a simulated assembly line and gave job candidates 90 minutes to perform a variety of work-related tasks. He also described how Cessna's Independence plant developed an elaborate role-playing exercise for managers that simulates a "day in the life" of a harried executive. Other examples of simulations in business and industry will be researched.

My Personal Interest as a Teacher Researcher

From 1967 to 1974 I lived and worked as a community development specialist in India, Malaysia, the Philippines, Majuro, and in the U.S. on the Westside of Chicago and the Mission District of San Francisco. I had an opportunity to visit many classrooms and was often struck by the rows of desks and stark colorless walls. The scenario Dewey (1902) shared about his shopping trip to buy functional desks and chairs for his students reminded me of the classrooms I had seen around the world. The sales clerk's response to Dewey was, "I am afraid we have not

what you want. You want something at which the children may work; these are all for listening."

I had a burning desire to get into the classroom and stir things up. I wanted to see children and adults on their feet or at least sitting on the edge of their chairs with excitement and energy. Dewey (1902) summed it up nicely when he said, "There is a certain disorder in any busy workshop; there is not silence; persons are not engaged in maintaining certain fixed physical postures; their arms are not folded; they are not holding their books thus and so." The desire Dewey expressed for a variety of activities, confusion, and bustle is what I sensed was needed in most of the classrooms I visited around the world.

Founder and Director of Training, Inc.

In 1974, I was invited to lead a small task force to design a short-term adult job training program in clerical skills for low-income, unemployed adults from DuPage County in Illinois. The students were entering the job market for the first time or returning after a long absence. We decided the program's training environment needed to be designed as close as possible to a real business office. We located the program in the heart of the business community where students found themselves shoulder-to-shoulder all day with other successful business people. Students saw their training as a time of transition from home to the business community. They learned a variety of office skills through simulations of real business situations that also required them to look and act the part of business professionals.

The program was named, "Training, Inc." to communicate the image of a company. The first "offices" were opened in Oak Brook, Illinois in a beautiful office building. When they enrolled, many students could not imagine themselves as creative, successful, ambitious or

skilled people. The office simulation helped build images of competence and confidence in each student's ability to enter and be successful in their chosen career.

For more than 10 years, I witnessed first-hand the power of a well-run simulation experience and the difference it made in the self-confidence of both the weak and strong students as they discovered new talents and abilities. During the simulation, students were encouraged and helped to write new scripts for themselves. The dominant self-images among those entering Training, Inc. were generally negative: "I lack skills, I am incompetent, or I just don't 'fit' into the work place."

Schmuck and Schmuck (1997) pointed out that "persons living with a loser script can twist and turn favorable feedback until it fits the negative image they already have of themselves." At Training, Inc. students were continually bombarded with experiences and messages that were aimed at changing their self-image from "I'm bound to fail" to one of "I'm bound to succeed."

Training, Inc.'s success was due in part to its image-shifting philosophy. It used an approach to education known as *Imaginal Education*. This philosophy, pioneered by the Institute of Cultural Affairs in Chicago, was an outgrowth of the work of Kenneth Boulding, author of "The Image: Life in Knowledge and Society." (1956) Boulding recognized that everyone operates out of images which determine behavior and that when images change, behavior changes. *Imaginal Education* is a practical application of the image theory.

In 1978, I read an article in the Business Education Forum on "Self-Image - a Life-Role Element of Career Education" (Finch 1978). The article quoted Abraham Maslow as saying, "One of the goals of education should be to teach that life is precious. If there was no joy in life,

it would not be worth living." The purpose of Finch's article was to discuss the self-image as a life-role element of career education and to offer ideas to business educators to help students develop and retain positive self-images. I was sold on the need for developing positive self-images in career education.

Hamachek (1971) used the term self-concept and defined it as a ". . . very private picture each of us carries around which evolves out of who we think we are, what we think we can do, and how best we think we can do it." Hamachek (1971) pointed out that "a person's idea of himself, or self-concept, is closely connected to how he behaves and learns." I decided that if poor performance in school and in the work place is related to poor self-images, my goal as an educator is to find ways to promote positive self-images in students. Or to use the words of Lou Tice (1996) ". . . to be a world-class efficacy builder" is my goal.

Michael Dukakis and Rosabeth Moss Kanter in their book Creating the Future (1988) wrote a chapter titled, "Climbing the Success Pyramid at Training, Inc." They wrote, "Students at Training, Inc. are given the message that they are independent learners, working apart from the class but at the same time a part of the larger group. Everything at Training, Inc. reinforces the message that success stems more from personal strengths than from practical skills." I was reminded that I am in the business of finding ways for students' to experience and use their personal strengths.

After serving as Training, Inc.'s founder and first director from 1975 to 1983, I coordinated the National Association of Training, Inc. programs from 1986 to 1988. The program opened in seven cities in the United States and has received numerous local, national and international awards and recognitions over the past 20 years. If I had developed the skills of

the teacher researcher during those years, I would have written volumes on the life altering teaching methods and the transformed lives I had the good fortune to witness.

Regional Director of Education for Educational Medical, Inc.

When I joined Educational Medical, Inc. as the Eastern Region Director of Education, I wanted our post secondary career schools to offer simulations as capstone courses where students would have an opportunity to put it all together before they go from school into internships or jobs. I was convinced that the simulations would let students experience that they could do the job and be successful.

To my surprise, when I researched published simulations in a variety of career areas, I found that there are very few simulations in print that set up multiple stations and allow student employees to interact. There are many individual packet simulations where students do a variety of tasks one-on-one with text materials or a computer and receive a grade, but these simulations do not demonstrate the need for teamwork, good human relations skills, or peer feedback.

This project is intended to demonstrate and document the important role and value of simulations in holistic career education. By holistic career education, I mean teaching techniques and methods that attempt to meet the needs of the whole person in training for employability. In my experience, interactive group simulations are a critical and generally absent methodology in career training. Recently, I suggested to a major publisher that they write more multi-station simulations for career schools. The editor's response was that there was not enough market demand to warrant developing this product. My response to this is that a market demand needs to be created!

Perceived Disadvantages of a Simulation Teaching Method

Disadvantages of using the simulation teaching method reported by some authors as reasons some educators give for not using the simulation teaching technique include the following:

- Simulations are time consuming.
- Simulations can be superficial.
- Simulations are resource intensive.
- The simulation design process is complex.
- Simulations go beyond reason to feelings and this can be difficult for some instructors
- Simulations use non-traditional teaching methods that take time to teach and perfect

Several authors described experiential learning as **time consuming.** Donnell (1979) pointed out that because simulations require considerable time to develop and perfect, teachers who plan to prepare their own need to begin a year ahead. Donnell (1979) stressed the need for the teacher to be familiar with the simulation method of instruction. This requirement then adds instructor training time to the decision to create and offer a simulation.

Learning by doing is sometimes accused of remaining at a **superficial level.** Gitomer (1994) believes this happens because of the way most educators have themselves been trained. In his article, "Learning by Doing What?" Drew Gitomer (1994) says that many teachers have not had an opportunity to gain experience in their subjects that would allow them to go beyond its surface activities. He says schools need to recognize and value teacher expertise that comes from their experience in the field. For example, it would be very difficult to facilitate a medical office simulation if one had not worked both front and back office at a medical facility and

experienced the dynamics and urgency of a medical office team.

It seems that there are few experiential work simulations available to date primarily because their development is **resource intensive** and the **design process involved is complex and time consuming**. Even those that have been developed may not be used because they are more expensive than textbooks and lecture materials and teachers do not have training in experiential methods.

"Experiential education instructors must take to heart the maxim that **how students feel is sometimes more important than what they know**" (Seeman, 1988, p. 29). Seeman (1998) adds that experiential education includes the nonverbal and subtle expressions of body language. He recognizes that feelings are often crucial to understanding the workplace. In addition to reasoning and logic, Seeman (1988) reminds us that craft and intuition must be included in knowing and that in a simulation, feelings are important and knowledge may be emotional and nonlogical.

Another resistance to experiential education is that it **requires the faculty to use non-traditional teaching methods** that they may be unfamiliar with (Seeman 1998). He mentions some of these non-traditional methods and the importance of perfecting this craft in the statement below:

> *We have ample evidence that feelings control behavior; how knowledge is attained and used depends on values and feelings. Instructors must be good lecturers but also value-clarifiers, facilitators of trust, even counselors. They must show their personhood or 'teacherperson' in order for students to show* ***their*** *'studentperson'. Experiential educators must be able to teach students how*

to give their experiences accurate language. They must be able to teach students how to discover relationships within the data of their experiences. Often, attempted role playing (sociodramas, psychodramas, simulations) "bombs" in the hands of a novice instructor. Simulation techniques require a certain craft that many faculty do not have. (Seeman, 1988, p. 30).

The Role of the Instructor in a Simulation

Carefully selecting and training the instructor is crucial in a simulation. According to Joyce and Weil (1996) a simulation goes through four phases: orientation; participant training, simulation operations, and debriefing. Four key roles for instructors include:

- *Explaining so the student completely understands the simulation;*
- *Refereeing and being careful to match individual capabilities with roles that push and strengthen;*
- *Coaching by giving supportive advice and allowing students to make mistakes and assume the consequences of their actions; and*
- *Discussing throughout the simulation how the simulation is like the real world, what difficulties and insights they are gleaning, and what relationships they can discover between the simulation and subject matter. It is also up to the teacher to appraise and redesign the simulation* (Joyce and Weil, 1996, p. 359).

Simulation teaching methods are student-centered. In a simulation environment "Teachers have to learn to begin their lessons with the student, not with the planned notes" (Seeman, 1988, p. 30). To paraphrase Seeman, teachers must learn to teach inductively because

the knowledge is already present within the student from their experience. Teachers need to find a way to bring it out, help students discover and internalize the knowledge to use in new applications. Teachers become facilitators. A simulation creates a shift in power and an increased amount of student interaction. "We need to choose faculty who have a facility with affect as well as cognition, who do not mind sharing their 'teacherpersons' with students" (Seeman, 1988, p. 30).

Finally, the faculty choices must practice holistic teaching. "Holistic teaching is neither optimistic nor pessimistic. It is *possibilistic*. It is wise for us to think that we can create an environment where the possible human can emerge. Holistic education focuses attention on creativity, wisdom, and will" (Hassard, 1985, p. 51). Another requirement of the chosen faculty for a simulation is sheer courage. Courage to let the power in the classroom shift, allow the interpersonal events to happen, facilitate reflections on the connections with real world implications and learnings about the self, allow the emotions and feelings that will prevail, and jump in without fully understanding the simulation or where it will go.

Holistic teaching is neither optimistic nor pessimistic. It is possibilistic.

Conclusion

Review of the literature makes it clear that there are many qualities of a simulation that are simply not measurable. Hyman (1978) in his article describing simulation gaming for values education said " . . . whether data are not yet available or will never be available, we will have to remain satisfied with partial data and hunches based on our experience with simulations" (p. 159). He suggested that we might be satisfied with a few maybe statements that we may

never be able to prove such as:

> *Maybe simulations are "motivators." Their main payoff may be that they generate enthusiasm for or commitment to: a) learning in general, b) social studies or some other subject area, c) a specific discipline like history, d) a specific course, or e) a specific teacher.*
>
> *Maybe simulations give participants a more integrated view of some of the ways of people. Maybe the simulation experience helps them integrate ideas and information they already had. Maybe simulations' main payoff is that they create student enthusiasm in one classroom which may spread through informal student channels throughout the school.*
>
> *Maybe simulations lead to personal growth — a better sense of how one appears to others; discovery of personal skills, abilities, fears, weaknesses, that weren't apparent before; opportunities to express affection, anger, and indifferences — without permanently crippling consequences (Hyman, 1978, p. 161).*

I was pleased that the majority of my research confirmed my own experience with, excitement about, and respect for simulations. But the caution by West cited by Cairns (1996, p. 139) made me put the simulation back into perspective when he said, "No single instructional method, not even an instructional simulation, should be treated in isolation from other methods, nor should any be revered as necessarily 'innovative' while others are relegated to 'traditional' . . . Simulations are one component and best understood as providing . . . a welcome and justifiable change of style, approach or method." At the same time I am reminded that the entire

master/apprentice training method of the European Middle Ages and before was based on *learning by doing* in which many shoes, pots, baskets, and utensils were discarded while the student became a master at his or her craft. In this sense, simulations may be the more 'traditional'.

Advantages of the Simulation Teaching Method

Advantages shared by Wakin and Petitjean (1979, p. 84) are as follows:

- "Students have the opportunity to experience human relations. Team work and cooperation are necessary.
- Students have the opportunity to not only use skills previously learned but also refine them to be marketable skills. New skills can also be learned during the simulation, or the student may do remedial work.
- Students with all ranges of ability and skills can work together successfully. The pretests and job interviews help to determine the positions they will fill.
- The materials used in a simulation provide the student with the variety frequently found in a real environment. Actual forms of the company the simulation is based upon may be used.
- Simulations give the students firsthand career planning information. Rotation schedules expose them to as many positions as are built into the activity.
- The value of team work must not be overlooked. Students learn what happens when employees are absent or neglect their obligations. The importance of working together and the continuance of the workflow are emphasized.
- The responsibility of caring for the equipment is part of the process. When there is a breakdown of equipment, the normal workflow is interrupted.
- Simulations provide the student with the opportunity to tie the knowledge gained from the text with job-related experiences. Individuals have the chance to demonstrate knowledge, skills, and attitudes necessary to get and keep a job.
- Social skills are developed as a part of the office interaction.
- Communications skills are refined. Students compose and type mailable letters. Oral communications also improve as the individuals learn to give and understand directions, clarify tasks, and share in problem-solving activities.
- Simulations are designed for particular learning experiences. The teacher can build into the program whatever is going to meet the needs of those particular students.
- Performance evaluations can be beneficial.
- The simulation is a bridge for the student that links the individual with actual office experiences in the security of a controlled experiment.
- It can be used as a culminating or capstone experience.
- Students are motivated by the opportunity to demonstrate their abilities in an environment different from the traditional classroom setting."

There are many advantages of using the simulation teaching method. The table of