

A PHENOMENOLOGY OF TEACHING WITH LAPTOP COMPUTERS: A CASE STUDY THROUGH THE EYES OF A TRAINER

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Abstract

Teaching with laptop computers (or laptops) is a new phenomenon in educational institutions. A review of the literature shows that laptops are being used as a learning tool from the perspective of how learners use laptops rather than how a trainer uses a laptop as a teaching presentation medium. This research project is the first phenomenological case study on teaching with a laptop from a trainer's perspective; this offers new implications on how to use this medium effectively. This study explores the essential elements of teaching with laptops and attempts to understand the teaching and learning process when using laptops.

INTRODUCTION

BACKGROUND AND RATIONALE

Teaching with laptops is a new phenomenon in educational institutions because of the dramatic decline in desktop and laptop computer prices and advanced computer capabilities. Seton Hall University in New Jersey started its mobile computing program in September, 1997. More than 320 undergraduate students from biology, business and the honors programs have received their laptops [McCarthy, 1997]. Seton Hall University faculty members connected with Seton Hall mobile computing programs have also received laptops as a new teaching tool. The mission statement of the Seton Hall University Mobile Computing [1997] states: "Seton Hall University, through its Mobile Computing effort, is taking the first steps toward this new kind of teaching and learning environment, supported by information technology, and ensuring basic access to all our students."

The Resmer, Mingle, and Oblinger Report [1995], *Computers for Students: A Strategy for Universal Access to Information Resources*, proposes a strategy of putting networked computing devices into the hands of all students at institutions of higher education. It outlines the rationale for such a strategy, the options for financing it, the required institutional support structure needed, and various implementation approaches. The report concludes that the resultant optimal environment is a laptop computer for every student with sufficient network access points, on and off campus. The rationale for this environment looks at changes in models of education, the need for improved communication, rapid changes in technology, and the changing nature of students.

STATEMENT OF THE PROBLEM

The central problem of this investigation is: How can laptops be used as a teaching medium? The following questions are specifically related to this problem:

1. Are there certain essential elements of teaching with laptops?

2. What is the teaching and learning process when using laptops?
3. What kind of subject matter is appropriate for teaching with laptops?
4. What are the advantages and disadvantages of teaching with laptops?

PURPOSE OF THE STUDY

The purpose of this case study is three-fold: (a) to explore the essential elements of teaching with laptops; (b) to understand the teaching and learning process when using laptops; and (c) to recommend new methods of teaching and learning with laptops.

SIGNIFICANCE OF THE STUDY

Teaching with laptops has many apparent advantages. However, scientific research is needed in order to understand: What constitutes teaching with laptops? Why do we want to teach with laptops? How, when and where should we teach with laptops? A better understanding of the characteristics of teaching with laptops will help us better utilize this new teaching medium.

DEFINITION OF TERMS

1. "Phenomenology" is, in the 20th century, mainly the name for a philosophical school of thought and research practice. A primary objective of phenomenology is "the direct investigation and description of phenomena as consciously experienced, without theories about their causal explanation and as free as possible from unexamined preconceptions and presuppositions" [Speigelberg, 1975, p. 3].
2. A "case study" is a detailed examination of one setting, or a single subject, a single depository of documents, or one particular event [Merriam, 1988]. "The data collection and research activities narrow to sites, subjects, materials, topics, and themes. From broad exploratory beginnings they move to more directed data collection and analysis." [Bogdan and Biklen, 1992, p. 62].
3. "Laptop computer" is a small portable computer light enough to carry comfortably, with a flat screen and keyboard that fold together [Dyson, 1994]. A laptop computer is commonly called a laptop. A laptop is battery-operated with color LCD (Liquid-crystal display) display screen. With the advances in computing technology, a laptop can perform as a full-sized desktop computer.

REVIEW OF THE LITERATURE

A review of the literature focused on the relationships among the concepts of phenomenology, case studies, laptops, and teaching. The literature on these inter-related subject areas provided a conceptual framework for this study and put it in a larger context.

PHENOMENOLOGY, CASE STUDIES AND EDUCATIONAL RESEARCH

Cashman and McCraw [1993] introduced the case study, the use of ethnography, and phenomenological methods and techniques of research as approaches to qualitative research in the area of educational technology. Both ethnography and phenomenological research are interpretive and descriptive forms of research. The ethnographic investigation focuses on the social organization of a group to examine the cultural processes and perspectives of those within the culture. Meaning assigned to experience and behavior in a culture results from a complex mixture of objects, situations, and events. Phenomenological researchers believe that there are multiple ways of interpreting events for each person and that these interpretations are what constitute reality for each person. A case study provides a holistic description of an environment. Case studies may be written at different analytic levels and result in different products, depending on the research questions. Research questions may be vague at the beginning of a qualitative study, but they are refined in the study process.

Pramling [1995] explored the use of phenomenology in educational practice. Phenomenology holds

that learning implies perceiving, conceptualizing, experiencing, or understanding something differently.

Buske-Zainal [1995] conducted a hermeneutic phenomenological study with the full-time faculty of a small engineering college. "What is it like to be teaching together?" was the guiding question. They made specific recommendations on ways of "being open to the possibilities" in the academic life, thereby having the opportunity to realize one's full potential as a human being. "Being open to possibilities" involves encouraging teachers and students to be creative inquirers who appreciate diverse ways of gaining knowledge that cross academic boundaries from the spiritual, literary, and artistic domains to those often associated with science and technology and grounded in logic.

Cohen [1994] presented a phenomenological approach to provide an understanding of two types of bibliotherapy (BT). Interactive BT involves a reader, reading material, and a facilitator, while self-help BT needs no therapist feedback. The results supported the value of self-help bibliotherapy and client teaching.

Brown [1996] described the mathematics classroom from the perspective of social phenomenology. He introduced a framework through which mathematical work is seen as taking place in the imagined world through the filter of the real world.

Green's [1996] interviews with nine nursing students revealed that they were able to define experiential learning, considered role playing a chief method, were aware of theory-practice issues, understood the importance of reflective practice, and viewed clinical supervision as an integral part of experiential learning.

Green [1995] observed and interviewed a nurse educator, determining that she had a clear understanding of experiential learning and used that knowledge in the classroom. The phenomenological method used in the study involved questions derived from knowledge and experience that were designed to elicit personal thoughts, knowledge, and perceptions in an unstructured way.

CASE STUDIES, LAPTOP COMPUTERS, AND TEACHING

Shears [1995] edited a book entitled *Computers and Schools*, which recounts what happened when a set of 25 laptops was introduced into each of 10 Australian schools ranging from elementary schools to high schools to colleges. They were schools with very different environments and experiences in computing education. In their own words, 10 teachers tell what happened in their schools and how they evaluated the impact of these laptops on students and teachers. A large part of the report deals with their case studies -- the experiments and surveys they conducted, and the responses, attitudes, and concerns of parents and staff members.

Gardner, Morrison, Jarman, Reilly, and McNally [1994] wrote a book, *Personal Portable Computers and the Curriculum*, which considers a variety of issues relating to the use of portable access to information technology (PLAIT) in Northern Ireland. The PLAIT project introduced 235 portable computers in nine schools for use in English, science, and mathematics courses. The general conclusions of the study were that the portable computers resulted in high levels of student motivation, harmonious and purposeful learning environments, and greatly accelerated information technology literacy among the students and teachers alike.

Rowe, Brown, and Lesman [1993] wrote a book, *Learning with Personal Computers: Issues, Observations and Perspectives*. This book provides a theoretical framework for learning and teaching with computers. It chronicles the results of an empirical study of 115 sixth and seventh grade students with their own laptops. Findings of the study include characteristics of learning with laptops, individual differences in attitudes and learning, and gender differences.

Anderson-Inman, Knox-Quinn, and Horney [1996] reported on computer-based study strategies for students with learning disabilities. Thirty secondary students with learning disabilities were given laptops and taught computer-based study strategies to test the efficacy of using technology to support students with learning disabilities. Results showed that students with high intelligence and reading test scores were more willing to adopt computer-based study strategies.

Price [1994] evaluated the effectiveness of the use of individual portable computers by seven students (from elementary through college age) having severe specific learning difficulties or dyslexia. The study found that students improved substantially in their note-taking skills, attitudes towards work, attitudes toward spelling, writing skills, and keyboarding skills. Other changes included increased independence in learning style.

Riegler [1992] described ways in which laptop computers were used in two high school Advanced Placement History classes. He discusses note-taking on laptops, small group assignments via modem, cooperative-learning groups, and laptops as research tools.

METHODOLOGY

Stanage [1987, p. 45] claimed that "A phenomenological approach to adult education opens up new directions for research and uncovers new layers of clarity in perceptions, conceptions, action, and practices." Spiegelberg's [1982, pp. 682-715] "Seven Essential Steps" of phenomenology listed below served as a guide in this investigation:

1. Investigating particular phenomena;
2. Investigating general essences (eidetic intuiting);
3. Apprehending essential relationships among essences;
4. Watching modes of appearing;
5. Exploring the constitution of phenomena in consciousness;
6. Suspending belief in the existence of the phenomena;
7. Interpreting the meaning of the phenomena.

In order to show how phenomenology has been used in this study, a direct investigation and description of phenomena of teaching with laptops has been offered. This investigation has been undertaken without theories about the causal explanation (of these phenomena) and has been kept as free as possible from unexamined preconceptions and presuppositions. Carefully gathered examples from my direct teaching experiences have been submitted to a free imaginative variation. An intentional analysis of the concrete experiences of teaching with laptops has been offered. A description of how these particular experiences have been constructed also has been provided. The relevant ingredients of teaching with laptops have been examined.

A PHENOMENOLOGICAL DESCRIPTION OF THE CASE

INVESTIGATING A PARTICULAR PHENOMENON OF TEACHING WITH LAPTOPS

This case study focused on a particular teaching medium, namely a laptop computer, and one trainer's experiences and reflections on using that medium. The case was described in the first person. I (Xue-Ming Bao) looked, listened and was sensitive to the finer shades of the phenomena. I provided intentional analysis and general examination of adjacent phenomena. I described the outward manifestation of the phenomena.

I started my new job as an assistant professor and librarian at Walsh Library, Seton Hall University on September 2, 1997. One of the tasks given to me was to provide library technology training to faculty members and students. A laptop computer was loaned to me for teaching purpose. Between September and December 1997, my colleague Dr. Zi-Yu Lin and I jointly taught two different courses: 1) Key topics in Windows 95 (12 40-minute sessions); and 2) Key topics in Microsoft PowerPoint (10 1-hour sessions). Ten Walsh library faculty members were our audience for Windows 95 and PowerPoint training sessions. In addition, I taught three courses by myself. These courses included: 1) A 3-hour introductory Internet course to a group of one freshman, one English professor and one secretary on September 27, 1997; 2) A 2-hour introductory course on Internet Home Page Design to eight faculty and staff members on November 11 and 3) A 17-hour introductory course on PowerPoint to 16 faculty and staff members on November 14, 1997. The five courses were on computer-related subjects. A laptop computer was used to demonstrate the contents of the courses.

I started my first class of Windows 95 training series on the second week of my new job. Even though I had used Windows 95 for two years, this was my first time teaching Windows 95 systematically. It was also my first time using a laptop. I could feel that the manipulation of the mouse on the laptop computer was a little different from that on a desktop computer. It was not as easy to use as a desktop computer's mouse.

The laptop computer's LCD screen did not appeal to my eyes as does that of a desktop computer. It was hard to see words and graphics on the laptop computer screen. However, the laptop computer was Pentium in speed and was as powerful as my desktop computer. The most distinctive advantage of a laptop was that I could comfortably carry it to the meeting room where I was to make my teaching presentation.

Two rooms were available for us to make presentations. One was big enough for 20 people while the other was small with only a 10 people capacity. Dr. Lin and I selected the small room because only five or six librarians were expected. There was a long table (10' L x 4' W) with eight comfortable chairs on two sides. An LCD projector was on a wheel-stand on the one end of the table. A big white screen (4'7" H x 4'9" W) was on the other end of the long table. The distance (13'4") was the right distance for projecting my laptop screen on to the big screen. People sitting on the chairs closest to the screen (4' away) on both sides of the table felt the screen was too close. People sitting from the second to the fourth rows of the chairs on both sides of the table were at the perfect distance (between 7' and 11' away) to view the screen. I felt it was important for me to come to the classroom 30 minutes earlier than the scheduled class time to set up my laptop connection to the projector. I wanted to make sure that I could project the teaching contents from my laptop to the big screen because it could affect whether or not I would be able to conduct the session. I had one incident that the projector could not project anything from my laptop. After 10 minutes of checking into all the possible causes, the media center technician found out that she was using a wrong size cable to connect my laptop to the projector.

The room light had to be turned off when the computer projector was on. Otherwise the room would be too bright for people to see anything on the big screen. It would be better for the room to have an adjustable light switch so that the light could be dimmed rather than be totally turned off. Fortunately the room had a window with adjustable blind shades. This was not as ideal, however, as having the adjustable lighting and as a result, people could not read my handouts comfortably.

Each Windows 95 training session lasted 40 minutes. The teaching process was like a "show and tell" process. The participants could see how I moved the mouse and where I pointed. I had two groups of people: 1) People who came to the training sessions with their own laptops and 2) people who came without laptops. A problem came up. When I was showing and telling, people with laptops were busy working on their laptops. They were listening to me but they were not watching the big screen. They missed the showing component of my presentation. They could not follow my verbal presentation to do the same steps on their own laptops. They complained that I was speaking too fast. The ideal situation would have been that they listened and watched my presentation first and then I would go over the steps with them again. But what about the people who did not come with laptops? Would they feel that the repetition was wasting their time? I was accommodating those participants who did not bring laptops to the class.

In planning our second training series for key topics in Microsoft PowerPoint, Dr. Lin and I decided that participants should bring their own laptops to each session, since all of them possessed laptops with Microsoft PowerPoint installed. We noted in our announcement that bringing the laptop computer to the class was required.

In teaching the PowerPoint, I did "show and tell" and also had the participants do exercises in each session. Five library faculty members came to my Tuesday sessions. The exercises were a PowerPoint presentation that I used for a 3-hour session of an introduction to the Internet. The idea was that library faculty members needed to teach Internet skills to students. These exercises would not only be a good way for them to learn PowerPoint but also a useful PowerPoint program that they could use to teach the Internet to their students.

In the first 1-hour PowerPoint session, we spent 30 minutes defining PowerPoint and what it could do. I then demonstrated the basic features of PowerPoint: 1) Auto-Wizard, 2) Template and 3) Blank Presentation. I asked the participants to do two exercises. One was to access the above three basic features while the other was to create a title slide by using the Auto-Wizard feature. All the participants brought their laptops to the session. We did exercises together. I was moving around to give each of them individual help when necessary. However, one problem surfaced: the five library faculty members had different skill levels in using their laptops. When one participant had already finished the creation of the title slide, another participant had not even gotten into the PowerPoint program. This participant needed a lot of extra attention.

In the second PowerPoint session after I demonstrated a few new teaching points of the PowerPoint program, I asked the participants to create six PowerPoint slides. They could only do two slides. I found that there was a discrepancy between what I would expect the participants to do and what the participants could actually do. I realized that the exercises should not be rushed. The pace of the exercises should be slow and relaxing.

In the third session, the participants created three slides. This was an indication that they had become more familiar with the PowerPoint program. During this session, however, I found that the participants had a common problem in that they did not know what to do when they lost their text bullet points of the slide. A PowerPoint slide template has two parts. One is a title part and the other is a text part. If a text part is deleted, the bullet points would be gone. I explained a couple of ways to get the text bullet points back individually. I should have spent time explaining this possible problem in the group session. This could have saved their time as well as mine.

The participants told me that doing the exercises in the class was a lot more demanding than just listening to a presentation. They felt that they learned more things in this way than just listening to a presentation. Another teaching experience made me realize how crucial the hands-on exercises are. I was asked to teach PowerPoint to a group of 16 faculty and staff members on November 14, 1997. I had only 1 1/2 hours for the session. The participants had no prior knowledge of PowerPoint. The training took place in a computer lab with more than 20 computers that have access to PowerPoint 97. I prepared my lesson to include a 30-minute presentation and a 1-hour hands-on exercise session. I demonstrated major features of PowerPoint 97 in the first 30 minutes. We then did exercises together for about one hour. The course evaluations showed that the students wished that they had had more time for hands-on exercises in this session. Some of them told me that five minutes introduction would be sufficient and that the rest of the time should be devoted to hands-on exercises. I think one of the reasons that some of them did not feel that my presentation helpful was that they could not see the screen well in the back rows of the computer lab. The participants in the 1st and 2nd rows of the lab had positive reactions towards my presentation. In a teaching environment where I have a big computer lab, I should have just shown an exercise on the screen and had the participants do it simultaneously. If I have more than five trainees in one session to do hands-on exercises, I need to have lab assistants to help me offer individual help to some trainees. Helping trainees who have different levels of computer skills in one hands-on exercise session is a big challenge to the trainer.

I taught a 3-hour introductory Internet course to a group of three participants in a computer lab. The lab had about 20 networked computers accessible to the Internet. I connected my laptop to a computer screen projector and a network jack. I put all my presentation key points on a PowerPoint program. I made live links from my presentation screen to the Internet. This feature of PowerPoint was very helpful. Apparently the computers in the lab were not maintained well. Some computers were not working and other computers were very slow to access to certain sites on the Internet. The participants had to hop from one computer to another. In their written feedback, they wrote that the session was informative and helpful but I needed to make sure that computers were working properly.

INVESTIGATING GENERAL ESSENCES (EIDETIC INTUITING)

The guiding question for this step of investigation is "What are essential elements or particulars in teaching with a laptop?" In the process of my eidetic intuiting, fourteen essential elements have emerged. They include: 1) Laptop computer(s) for the trainer or for both trainer and trainees, 2) A computer screen projector, 3) A projection screen, 4) Methods of training (e.g. "show and tell" and hands-on exercises), 5) Trainer and trainees, 6) Training subject matter, 7) Duration of a training session, 8) Types of training (e.g. a multi-sessions series or one session only), 9) Training room size, 10) Furniture arrangement, 11) Lighting, 12) Acoustics, 13) Technical support, and 14) Assessment tools.

APPREHENDING ESSENTIAL RELATIONSHIPS AMONG ESSENCES

The goal of this step is the determination of what relationships among essences are highly essential, relatively essential, and merely compatible to the existence of the phenomenon. In this study, "highly essential" is defined as being so crucial that the relationship will affect whether or not teaching with laptops can be conducted. "Relatively essential" is defined as being crucial and the relationship will affect the quality of teaching with laptops. "Merely compatible" is defined as being non-crucial and teaching with laptops can be conducted in either situation. The following essential relationships have emerged among the above essential elements:

- The relationship between a laptop computer and a computer screen projector. (Highly essential)
- The relationship between "show and tell" and hands-on exercises. (Relatively essential)
- The relationship between teaching with laptops and subject matter taught. (Relatively essential)
- The relationship between a trainer and trainees. (Relatively essential)
- The relationship between teaching with laptops and the teaching environment. (Relatively essential)
- The relationship between a multi-sessions training series and one-session only training. (Merely compatible)

WATCHING THE MODES OF APPEARING

The modes of these essential relationships appearing range from crucial to non-crucial. The relationship between a laptop and computer screen projector is highly essential because I would not be able to teach with my laptop if I did not have a computer screen projector available. Ideally a lab technician can help you set up and test the connection between your laptop and the projector.

The relationship between "show and tell" and hands-on exercises is relatively essential. Teaching with a laptop is basically a "show and tell" process. You show what you want trainees to see through a projector and you explain what is on the screen. You may even engage trainees in a discussion during your "show and tell." Hands-on exercises refer to a trainee's actual practice on a computer. It is used as an extension of "show and tell" for computer-related subject matter. "Show and tell" and hands-on exercises should be conducted simultaneously when teaching computer-related subject matter such as Windows 95 and PowerPoint 97 and home page design. The less talk, the more hands-on, the better. However, you may not be able to provide both "show and tell" and hands-on exercise in every training session because of the constraints of the availability of the computer equipment.

The relationship between teaching with laptops and subject matter taught is relatively essential. The computer-related subject matter is best taught by using a laptop because the contents can be demonstrated through the laptop itself. However, a laptop is not limited to teaching computer - related subject matter. The templates in the PowerPoint program, for example, show that a laptop can be used to present or teach business and many other subjects.

The relationship between a trainer and trainees is relatively essential. In order to have a successful training session, a trainer should prepare the session well and should try to find out the needs and interests of the trainees. The trainees should be willing to learn. When a trainee makes an effort to come to the training session, this is already a good indication of willingness to learn. It is then the trainer's responsibility to make the training session worthwhile. The biggest challenge for a trainer is to meet different needs and interests of a group of trainees who have different levels of knowledge background of the subject matter. The trainer should assess the teaching quality by getting verbal or written feedback from trainees on a regularly basis.

The relationship between teaching with laptops and the teaching environment is relatively essential. Teaching with a laptop requires a proper teaching environment. The room can not be too big because people will not be able to see clearly what is projected on the screen if they are sitting in the back of the room. Adjustable lighting is necessary for people to see both the screen and their handouts. Acoustic quality of the room is important for people to hear from you clearly.

The relationship between a multi-sessions training series and one-session only training is merely compatible. The duration of training on a subject depends on the needs and availability of trainees. In a

multi-sessions training series, trainees will learn more details and have more hands-on exercises. In one-session training, trainees will be introduced to the subject matter and have less time for hands-on exercises.

EXPLORING THE CONSTITUTION OF TEACHING WITH LAPTOP IN CONSCIOUSNESS

The purpose of this step is the determination of typical process of teaching with laptops. What is the pattern of its development in my perception? Teaching with a laptop requires a computer screen projector. A laptop installed with a presentation software program such as a Microsoft PowerPoint program can be used as a powerful medium to teach an unlimited number of subjects. Depending on the objectives of each teaching session, teaching with a laptop is mainly a "show and tell" process. If the teaching involves a computer-related subject and if the trainees have access to laptops or desktops, hands-on exercises should be incorporated as a major component of the teaching session. Proper room size and availability of adjustable lighting will also have an impact on teaching with laptops.

SUSPENDING BELIEF IN THE EXISTENCE OF TEACHING WITH A LAPTOP

This step frees me from my usual preoccupations and beliefs. To suspend my belief of teaching with laptops in the existence is to ask myself why I need or want to teach with a laptop. Could I teach the five computer subject-related courses between September and December 1997 without using a laptop? The answer is no. I have to use a computer and projector to show the contents on a big screen in order to demonstrate and to have the participants follow me with their hands-on exercises. Otherwise, my teaching on these subjects would have been much less effective.

INTERPRETING THE MEANING OF TEACHING WITH A LAPTOP

This step goes beyond what is directly given. The guiding questions for this step are "What are the strengths or advantages of teaching with laptops? What are the weaknesses or disadvantages of teaching with laptops?"

A laptop installed with a PowerPoint program is a great presentation tool in teaching a group of people about an unlimited number of subjects. A laptop without a presentation program would be limited to teaching only computer-related subjects. I used my laptop to teach Windows 95 to a group without having to use the PowerPoint program.

What are the limitations of teaching with laptops? A laptop has to be used with a computer screen projector in order to make it an effective teaching medium for a group. A good quality computer screen projector is expensive and is not readily available in many learning environments.

CONCLUSIONS AND RECOMMENDATIONS

A review of the literature shows that laptops are being used as a learning tool from the perspective of how learners use laptops rather than how a trainer uses a laptop as a teaching presentation medium. This research project is the first phenomenological case study on teaching with a laptop from a trainer's perspective, and thus offers new implications on how to use this medium effectively. Fourteen essential elements of teaching laptops have emerged in this study concerning the equipment, method of teaching, subject matter, people, teaching environment, and timing. The relationships among those essential elements range from highly essential to relatively essential to merely compatible. Based on the findings of this study, I would make the following recommendations when teaching with a laptop:

1. Go to your training room or lab at least 30 minutes before the start of a training session to make sure that your laptop will connect properly to the projector.
2. Choose a small room in which people can clearly see screen projection.
3. Choose a room with adjustable lighting so that people can see both the big screen and their handouts.
4. Incorporate hands-on exercises as a major part of your teaching plan if trainees have access to the same software programs on their laptops and desktops.

5. Recruit no more than five trainees for one hands-on training session because some trainees will need your individual help.
6. Request lab assistants to help you offer individual help to some trainees if you have a large group of trainees for a hands-on training session.
7. Install a presentation software program such as a Microsoft PowerPoint program to extend the teaching capability of your laptop to non-computer-related subject matter.
8. Narrate your "show and tell" demonstration clearly by speaking out the name of an icon or object on the screen, for example, say "File pull-down menu" rather than say "this" or "that" when pointing to that icon.

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2. Adult Learning Across Disciplines Around the World
3. Case Teaching Across Disciplines Around the World
4. Educational Leadership and Case Method Application
5. Interactive Simulations and Distance Education
6. The Case Method and The Internet
7. Case Studies and Writing in Various International Settings
8. Applications in the Disciplines

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PREFACE

This volume continues the annual presentation of 'Selected Papers' resulting from international, interdisciplinary WACRA® conferences devoted to the consideration of the case method, simulations, games, videos, distance education and other interactive methods as research, teaching, training and learning techniques. Included also is a selection of international cases.

During the last 30 years the case method has enjoyed a steady and continuing increase in popularity and use. For example, applications in the field of education have increased in the past several years and continue to increase dramatically. The International Association for Management Education (AACSB), the American Accounting Association and many leaders in university-level business education encourage the use of the case method and other interactive techniques to more effectively reach students, especially undergraduate accounting students who, in recent years, have turned to more "exciting" fields of study.

In its Preamble to Business Accreditation Standards (<http://www.aacsb.edu>), the AACSB states:

The complex demands on management and accounting education mirror the demands on organizations and managers. Challenges come from:

- *strong and growing global economic forces,*
- *conflicting values,*
- *changing technology in products and processes, and*
- *demographic diversity among employees and customers.*

In this environment, management education must prepare students to contribute to their organizations and the larger society and to grow personally and professionally throughout their careers. The objective of management education accreditation is to assist programs in meeting these challenges.

Accreditation focuses on the quality of educational activities. Standards set demanding but realistic thresholds, challenge schools to pursue continuous improvement, and provide guidance for improvement in educational programs.

AACSB member schools reflect a diverse range of missions. That diversity is a positive characteristic to be fostered, not a disadvantage to be reduced or minimized. Therefore, one of accreditation's guiding principles is the tolerance, and even encouragement, of diverse paths to achieving high quality in management education. Thus, the accreditation process endorses and supports diversity in management education.*

Acknowledging the diversity within AACSB, all member schools share a common purpose – the preparation of students to enter useful professional and societal lives. Interaction among students and faculty accomplishes this purpose most directly. Accordingly, the accreditation review focuses on a school's clear determination of its mission, development of its faculty, planning of its curricula, and delivery of its instruction. In these activities, each school must achieve and demonstrate an acceptable level of performance consistent with its overall mission while satisfying AACSB standards. Substantial opportunity remains for schools to differentiate themselves through a variety of activities.

Just as managers face rising expectations for their performance and the performance of their organizations, programs in management education also should anticipate rising expectations, even within a given mission. No fixed curriculum, specific set of faculty credentials, single type of faculty performance, or approach to instruction will suffice over

time. Accordingly, programs in management education, and the accreditation process, must focus not only on the present, but also on the preparation for the future. The processes used to strengthen curriculum, develop faculty, improve instruction, and enhance intellectual activity determine the direction and rate of improvement. Thus, these processes play an important role in accreditation, along with the necessary review of inputs and assessment of out-comes. As part of each school's effort to prepare its students for future careers, the school should provide a total educational experience that emphasizes conceptual reasoning, problem-solving skills; and preparation for life-long learning.

WACRA® conferences are designed to assist faculty and administrators in reaching these goals.

Delegates from around the world, including representatives from affiliated case method oriented organizations routinely present their ideas and proposals on interactive, interdisciplinary, intercultural and international teaching and learning.

Presentations and discussions of scholarly work are primary means of communicating knowledge. Today, the environment and the opportunities are increasingly international in scope. Scholarship and research, to continue to fulfill their role in society, have to adapt to this new environment. To facilitate research and promote cooperation internationally and across disciplines, WACRA® - The World Association for Case Method Research & Application and ACT - The Academy for Creative Teaching, conduct international conferences and publish this series of 'Selected Papers' with the purpose of:

- creating an International Forum for the discussion of contemplated, on-going or completed case method research,
- facilitating the exchange of experiences with existing case method applications and
- providing encouragement and an interdisciplinary, international structure for the discussion, development and dissemination of new avenues and approaches to teaching and training.

Months before the infamous "Wall" came down in 1989, WACRA® became actively involved in building bridges to academia in Central and Eastern Europe. This process has enabled colleagues from a variety of Central and Eastern European countries to participate in WACRA® conferences, to present their work to an international audience and to engage in academic discourse and exchange of ideas on a truly international scale.

These contacts contributed to the creation of Case Method Organizations in The Czech Republic and Lithuania: CZACRA - The Czech Association for Case Method Research & Application in Brno, Czech Republic and BACRA - The Baltic Association for Case Method Research & Application in Panevezys, Lithuania. Since then, the initial contacts have evolved into full partnerships between WACRA® and Central and Eastern European Institutions and also among WACRA® members from all over the world. Members have collaborated in many projects and are cooperating on case writing, case teaching and training, management consulting, and curricula planning, to name just a few projects.

Delegates from 27 countries attended the conference in Marseille, France. Host of WACRA'98 was Groupe ESC Marseille-Provence (Business School), Marseille, France. All papers and contributions presented at the conference were selected through a double blind peer review and out of this pool the papers in this volume were selected for publication. The contributions are arranged in the following broad areas: Case Method Research and Evaluation (1), Adult Learning Across Disciplines Around the World (2), Case Teaching Across Disciplines Around the World (3), Educational Leadership and Case Method Application (4), Interactive Simulations and Distance Education (5), The Case Method and The Internet (6), Case Studies and Writing in Various International Settings (7), and Applications in the Disciplines (8). ✓

While editing the papers included in this volume, I have tried to maintain the character and thrust intended by the authors, despite the need to make, in some instances, alterations and amendments, in other cases, assisting the author in rewriting the paper. I have retained, to allow for flavor, alternate accepted (British) spelling, and have permitted slightly 'unorthodox' sentence structures to prevail, as long as the meaning was not distorted. In all, I have tried to maintain the author's opinions, views, suggestions and thoughts.

Hans E. Klein, Editor