

# Flexibility and Variety in the Use of Case Studies



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## Abstract

The case studies method is a flexible pedagogical technique that can be used effectively in a variety of formats as part of the teaching and learning process. The characteristics, recommended procedures, and advantages of various versions of the case studies method are discussed based on information drawn from the literature. Several examples of the use of case studies in a capstone problem-solving course are also presented.

## Introduction

The use of case studies has become increasingly popular in higher education. The history of case studies (sometimes referred to as the case method or simply cases) as a major pedagogical technique is typically traced to the law and medicine disciplines in the late nineteenth century and the Harvard Business School in the early twentieth century (Naumes and Naumes, 1999; Weaver, et al., 1994 ). Extensive use of case studies is a well-known tradition at the Harvard Business School, and a particular format has evolved there (Barnes, et al., 1994b; Stanford, 1992a). Much of the case studies literature focuses exclusively on this version, which I will designate as the classical case studies model. Specific and detailed recommendations and guidelines have been established for using and writing cases based on this model.

The value of the classical case studies model in the teaching and learning process has clearly been demonstrated and its use has spread to many disciplines including agriculture. Unfortunately, many authors and practitioners limit their discussion and use of case studies solely to this model or champion it as superior to other versions. In doing so, they overlook or fail to recognize the flexibility and variety inherent in case studies overall as a pedagogical technique.

Strict limits placed on the origin of cases and rigid requirements regarding procedures that have to be followed also inhibit creativity in the application of case studies to teaching and learning. For example, some authors insist that cases must involve real-life situations (Naumes and Naumes, 1999; Simmons, et al., 2000; Stanford, 1992a). However, others

disagree with the premise that fictitious cases cannot be used effectively (Boehrer and Linsky, 1990; Peterson, 1996; Weaver et al., 1994). As a second example, many authors include classroom discussion as a required component of the case studies method. However, Cranton (1998) states that students can work on cases individually or in groups and in or outside the classroom.

I define case studies as a pedagogical technique in which real or simulated life situations are used in the teaching and learning process. This holistic definition recognizes and supports flexibility and variety in the use of case studies. Based on course format, subject matter content, and educational objectives, faculty can select and employ from the numerous versions of the case studies method those that will be most effective in actively engaging students. In this article, I will 1) provide an overview of the classical case studies model including background information and resources available to assist practitioners, 2) present examples from the literature of other versions of the case studies method, and 3) discuss how I use three versions of the case studies method in a capstone problem-solving course.

## Classical Case Studies Method

Barnes et al. (1994b, p. 44), in an essay about teaching with cases at Harvard Business School, define a case as follows: "A case is a partial, historical, clinical study of a situation which has confronted a practicing administrator or managerial group. Presented in narrative form to encourage involvement, it provides data--substantive and process--essential to an analysis of a specific situation, for the framing of alternative action programs, and for their implementation recognizing the complexity and ambiguity of the practical world." These same authors (p. 46) define the case method of instruction as a learning process in which there is "a complicated interaction of case situation, individual student, overall class section, and discussion leader."

The classical model characterized by these definitions and descriptions has come to represent

the case studies pedagogy in total in much of the case studies literature pertaining to higher education. Terminology and procedures discussed by authors such as Davis (1992), Lynn (1999), Naumes and Naumes (1999), and Stanford (1992a) are typical examples. The basic steps in the model include: 1) choosing an important real-life situation in which there are several possible alternatives and outcomes, 2) providing sufficient detailed information so that students can comprehend the case, 3) assigning the reading of the background materials prior to class presentation, and 4) facilitating classroom discussion in which the case content is analyzed, potential solutions are generated, and decisions are made.

There is a general consensus in the literature concerning the major benefits of the classical case studies model. Advantages commonly cited include application of concepts and knowledge to actual situations, active student involvement via a variety of learning activities, giving students greater responsibility versus the instructor in the teaching and learning process, and student participation in the decision-making process from analysis through implementation (Barnes et al., 1994b; Davis, 1992; Lynn, 1999; Naumes and Naumes, 1999; Stanford, 1992a). Other advantages of the classical case studies model cited in the literature include a balance of substantive and process teaching objectives (Barnes et al., 1994b), encourages higher levels of thinking (Naumes and Naumes, 1999), allows practice without disaster (Sanford, 1992a), aids in the gaining of wisdom and improvement of judgement that comes from experience (Davis, 1992), and helps students learn to cope with the real world (Lynn, 1999).

Advocates of the classical case studies model also recognize that it does have some disadvantages. For example, Davis (1992) and Lynn (1999) state that for some educational objectives such as acquiring knowledge, mastery of technical processes, and developing concepts, other pedagogical techniques are more appropriate. Stanford (1992a) lists slower learning progress, oversimplification of issues and the decision-making process, students do not have to implement the decisions they make, and the considerable time required to prepare, teach, and evaluate as important limitations. Barnes et al. (1994b, 1994c) acknowledge the difficulties in facilitating effective classroom discussion which is the principle learning activity in the classical case studies model.

Teaching materials prepared for the classical case studies model have three major components. The

text provides perspective and background information essential for understanding the situation, the stakeholders, and the dilemma. The exhibits supplement the text by providing additional facts and data. The teaching note is a resource included to assist the instructor by outlining directions for use of the case, objectives, important issues, and key questions for consideration. These teaching materials are typically quite extensive, often consisting of ten to twenty pages, and require considerable time and effort to prepare.

Specific guidelines and recommendations used by the Case Research Journal, published by the North American Case Research Association, have become the standard for the classical model. Davis (1992) summarizes these in detail in his discussion of case writing. The Journal of Natural Resources and Life Science Education (JNRLSE) has a case study publication policy (Grabau, 1997) with similar guidelines. A number of authors have published suggestions and recommendations for teaching using the classical case studies model and for writing the cases (Davis, 1992; Lynn, 1999; Naumes and Naumes, 1999; Simmons et al., 2000; Stanford, 1992b).

Literally thousands of published prepared cases in the classical format are available. Given the history of this case studies model, most of these cases are related to business. However, a number of cases more directly related to agriculture have been published in recent years. Sources include Stanford, et al. (1992) and Swinton (1995), as well as cases published in the journals JNRLSE and HortTechnology. Web sites maintained by the Clearinghouse for Decision Case Education at the University of Minnesota ([www.decisioncase.edu](http://www.decisioncase.edu)) and the National Center for Case Study Teaching In Science at the University of Buffalo, State University of New York (<http://ublib.buffalo.edu/libraries/projects/cases>) contain information about case studies resources related to agriculture and science.

## **Other Versions of the Case Studies Method**

Flexibility is an important characteristic and advantage of the case studies method. The technique can be used in a variety of formats depending on specific educational objectives. Therefore, application of the case studies method in course work should not be limited to the classical model. Instructors should be open to all versions of the case studies method, choosing those that are most appropriate for the intended purpose and classroom environment. Peterson (1996) also

advocates the use of many different versions of case studies in higher education, and provides guidelines for incorporating cases into course work where the case studies method is only one of several pedagogical techniques employed by the instructor. Several examples of variations of the case studies method which appear in the literature are discussed in the following subsections.

### **The Short Case**

A short case is one that consists of as few as one or two paragraphs. As previously noted, one of the concerns with the classical model is that considerable time and effort is required. Eitington (1996) emphasizes in particular that this type of case is lengthy and complex and requires both considerable advance preparation time and long discussion periods. He then notes that the short case eliminates these concerns, states that it can be used to excite participant interest and encourage creative problem solving, and provides an illustrative two-paragraph example. Likewise, Boehrer and Linsky (1990) report that short cases can be effective teaching vehicles and refer to a two-paragraph case studies story that they use as the basis for a powerful and deep discussion session. A key disadvantage of the short case is that students lose the opportunity to learn to identify what is and is not important when presented with a complex case.

### **Role Playing**

Incorporating role playing into the case studies method amounts to staging a concrete enactment of an abstract situation and has a number of benefits. There is general consensus in the literature that role playing stimulates student participation and enlivens discussion because it increases student identification and empathy with the case (Eitington, 1996; Boehrer and Linsky, 1990; Weaver et al., 1994). Boehrer and Linsky (1990) also add that role playing can produce its own data for discussion and analysis. Cranton (1998) indicates that specific guidelines need to be followed for role playing to be effective, notes that it can be difficult to use with large classes, and cautions that if role playing is not properly planned or poorly managed, it can result in an unpleasant experience.

### **Descriptive Cases**

Descriptive cases (sometimes referred to as retrospective or illustrative cases) are those in which the whole situation is described including the final decisions. Case materials consist of information about what happened and why. Descriptive cases can be used to teach and have students apply new information, concepts, and theories in addition to encouraging higher levels of thinking (Naumes and

Naumes, 1999; Weaver et al. 1994). Therefore, descriptive cases overcome a disadvantage of the classical case study model state which as discussed earlier, is not well suited for the teaching of content and applications. Naumes and Naumes (1999) also discuss different levels of descriptive cases. Depending on case structure and information, and based on concepts and theories previously presented, students are required to provide explanations, make applications, or evaluate the case results. Since the final decision is included in descriptive case materials, students do lose the opportunity to actively participate in the decision making process.

### **Mousetrap**

Weaver et al. (1994) discuss the value and use of the case studies method to explore moral and ethical issues and dilemmas. Eitington (1996) provides an example of a type of case study called the mousetrap technique that he finds particularly effective in dealing with ethics and values. The mousetrap technique consists of three or more different situations presented in sequence, with each calling for acceptance or denial of the same set of standards. Participants commit themselves in situation one, unaware of situation two. They further commit themselves in situation two unaware of the situation three, and so on. Each commitment makes it difficult to make the same commitment in the next situation without being inconsistent in terms of ethics, values, and standards. Eitington (1996) states that the mousetrap technique shows participants that their thinking and decision making may be marked by various forms of faulty reasoning including rationalization, double standards, and confusing personal versus social values.

### **Student Selected, Investigated, and Written Cases**

By necessity, preselecting a particular case, attempting to capture all the important intricacies and dynamics of the situation and stakeholders in case materials, determining the content and context of the limited information actually provided to students, and presenting a “real” case in an isolated classroom environment make even the classical case studies model “artificial” in many respects. As previously noted, many advocates admit to this weakness. Others, such as Fenwick and Parsons (1997) question in even more depth how pre-shaped cases can help students learn to frame experience for themselves, authentically represent human experience, and truly prepare students to be practicing professionals by engaging them as spectators.

A format that can help overcome these concerns is to have students select, investigate, and write their own cases. As Weaver, et al. (1990) indicate, having students write their own cases is a widely acclaimed assignment that extends students' thinking beyond cases presented in class, helps students improve their writing skills, and requires students to use divergent, critical thinking skills. This approach can also strengthen some of the overall benefits of the case studies method such as having students take more responsibility for their own learning and engage in self-directed learning.

### **Teaching and Classroom Situations as Cases**

An interesting use of case studies in higher education is to apply the technique directly to situations involving teaching and learning. Boehrer and Linsky (1990) discuss the idea of making the class itself a case in point. Weaver et al. (1994) indicate that the case studies method can be used to have students become aware and assess the effects of their personal strengths and weaknesses. Barnes et al. (1994a) and Cranton (1998) present a number of cases involving college teachers. The Barnes et al. (1994a) book is especially relevant because it consists entirely of readings and cases about teaching situations involving the case method.

### **First-Year Experience Course Cases**

Many colleges and universities have established first-year experience (orientation) courses to help students achieve success in college and in their professional lives. There has been increasing interest in the use of case studies involving situations in the personal lives of students as an important component of these courses in recent years. Riesen, et al. (2000) discuss the use of three case studies representing academic and social issues. The authors state that the cases are a way to target common difficulties while maintaining student anonymity. They also report that discussion sessions are improved, students get more involved in their own learning, and feedback from students and instructors has been positive.

Welsh, et al. (2000) also discuss the use of case studies that describe situations in which first year students actually find themselves. The authors report that these interesting stories make good cases in which students become actively involved in their own learning. Welsh (1999) has authored a text containing a number of real-life personal case studies involving situations and decision choices commonly encountered by students in their first few weeks of college. A one page student case analysis worksheet is provided with each of the brief written cases.

### **Nontraditional Sources of Cases**

Although many cases depict real-life events in businesses and other organizations, there are numerous other sources for cases. Eittington (1996) includes articles in newspapers and magazines, letters and memos, and experiences of colleagues in his discussion of case sources and materials. Boehrer and Linsky (1990) write that a case is in essence a story with narrative details of an event including characters, a plot, and sometimes even dialogue. Therefore, they list plays, films, news clips, and incidents reported by participants among potential sources for cases. Cases can be stories not only figuratively, but also literally. As an example, Coles (1989) uses fiction (novels and short stories) as a vehicle for cases in many of his courses.

### **Use of Case Studies in a Capstone Problem Solving Course**

I incorporate three versions of the case study method into a capstone problem solving course that I developed and teach at an associate degree technical college. The major topics in this course, which is required for all engineering technology students, include problem solving, written and oral communications, interpersonal relations, critical and creative thinking, learning styles and personality types, teamwork and group processes, decision making, leadership, and management. Readers interested in more detailed information about the course are referred to Zimmerman (1991, 1997).

First, I use several brief fictitious cases in which students assume the role of the decision maker in the scenario and then individually or in groups make a decision and defend their choice. The cases are dispersed throughout the course and help students learn and apply concepts related to individual and group decision making processes. These exercises have also generated lively and meaningful student discussion about the principles and biases involved.

Second, I combine role playing with a case involving the controversy over the required use of the turtle excluder device (TED) in shrimp fisheries in southeast USA coastal waters. This case is an excellent example of soft systems problem situations which is a major topic in the course. I also chose this particular situation because the issue is new to the students at this Midwest college and they have fewer pre-case biases. Readers interested in more information about the soft systems concept are referred to Wilson and Morren (1990).

Success with role playing involves an understanding of, and attention to, the three distinct phases of

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preparation, enactment, and analysis. The preparation phase starts at the weekly class session that precedes the one at which the role play will occur. During this session, I provide each student with a notebook containing copies of numerous articles that I have collected about the TED controversy. I have already identified all the individuals and groups who are stakeholders in the situation. Students, either as individuals or in small groups, are assigned a stakeholder role. One student is assigned the task of being the discussion facilitator during the role play.

Students are instructed to read and study the appropriate parts of the background reading materials that contain information about, and quotes from, the stakeholders they are to represent. In order to ensure that the students are adequately prepared, I require that they bring to the role play a set of notes outlining the basics of their stakeholder's positions. These notes are collected at the end of the role play and evaluated as part of the participation grade for the course.

Prior to the start of the role play, students are reminded that they have two concurrent tasks. One is to play their role effectively, since their performance is also evaluated as part of the course participation grade. The second task is to mind map or take other types of notes about the case as enacted. These notes will serve as a reference during the discussion and analysis session that follows the role play and are also collected.

The extensive preparation phase results in very productive enactment and analysis phases. Students readily assume their roles and the discussions during the role play are enthusiastic, animated, realistic, and sincere. During the analysis or debriefing phase, very effective discussion again takes place.

The effectiveness of this combination role play and case study activity in helping students learn about soft systems is apparent during the debriefing phase. Students often comment on the value of being able to actually experience many of the basic characteristics of soft systems situations in helping them understand the concepts and applications of the technique. In particular, they mention the following: 1) the complex and messy interactions that exist between people, groups, and the environment, 2) not being able to identify the exact problem or desired outcome at the start, 3) there not being a single best solution, and 4) the stakeholders in total have to approve and implement ways to successfully improve the situation. Another

comment frequently made by students is that the combination role play and case study is one of the highlights of the course.

Third, the final project and term paper for the course is case based. Students, either individually or in small groups, are required to identify, investigate, and make recommendations as a facilitator about an actual current soft systems situation. The project includes interviewing the stakeholders involved in the situation and writing a major follow-up term paper based on criteria and detailed written instructions included in the course packet. The project is introduced and discussed mid way through the quarter and comprises the major assignment for the remainder of the course.

Students must select a situation from their local community or region and the topic must be approved in advance. I provide assistance in completing the project and writing the term paper as requested during the remaining class periods. Students provide an overview of their project during one of the final class sessions of the course. The case study is also discussed during the individual conference that I have with each student at the conclusion of the course. During these sessions, students speak with enthusiasm about their particular cases. They commonly use such terms as interesting, personally illuminating, challenging, and valuable when referring to the self-selected, real-world case study project.

I have personally assessed the various case studies activities used in the course (as I do with all teaching methods I employ) and found them to be very valuable in helping accomplish the course objectives. However, the effectiveness of the cases as a pedagogical technique has not been measured quantitatively (nor were any such measures of effectiveness found in the literature). Case studies do represent a major part of the course activities; therefore, their value can also be inferred based on student and peer evaluations of the course. The problem solving course is highly rated by students, consistently receiving student evaluation of teaching (SET) ratings well above college and university averages. Most of the students also take advantage of the opportunity to make written comments on the SET forms. The comments are overwhelmingly positive about the course and the various learning activities. The course has also received outstanding ratings from several faculty in the college who have evaluated course materials and observed in the classroom as part of the departmental peer evaluation of teaching process.

## Conclusion

The case studies method is a flexible pedagogical technique that exists in a variety of formats. It promotes active learning and lends itself to innovation and creativity in meeting educational goals. Case studies can play an important part in the mix of student-centered learning strategies used in higher education. College teachers are encouraged to consider the many versions of the case studies method when they investigate and evaluate ways to improve the teaching and learning process.

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