



Technical Note on Developing and Using Case Studies



Introduction

The case method has been widely used in business and law courses for many years and is now being used in several disciplines. Generally, case method discussions produce good learner involvement. Case methods, like other problem-based methods, are intended to develop the learners' ability to solve problems using knowledge, concepts, and skills relevant to an issue. Cases provide contextualized learning, as contrasted with learning disassociated from meaningful contexts.

Cases are typically descriptions of problem situations in the field in which the case is being used. Sometimes they are summaries constructed to represent a particular principle or type of problem. For example, in medicine a case may describe a patient and the patient's symptoms; in psychology the case might describe a group facing a decision; in biology the case might describe an environmental problem. Whatever the case, it typically involves the possibility of several alternative approaches or actions and some evaluation of values and costs that require the learner not only to apply content but also to consult other resources.

Objectives

After reading this technical paper, one should be able to:

- * Define what the case study method is
- * Identify attributes of a good case study
- * Write a case study for use in extension
- * Use a case study to enhance problem solving skills and encourage participant discussion

The Case Study Method

The goal of case study learning is to recreate the process of identifying a problem and using skills to solve the problem. Agricultural producers and managers are faced with many problems each day. The process of identifying and solving these problems is more generally called *thinking*. The collection over time of solutions they have used to solve those problems is called *experience*. Thus, an instructor using case studies is simply trying to provide *experience* to learners by recreating the process of *thinking*.

The case study method is just one particular type of problem-based learning. On occasion a learner is merely presented a concept without a setting or background. New users of a concept will have difficulty understanding why the concept is relevant to their problems. Putting the concept in the context of a real problem can help bridge the relevance gap. Thus problem based learning is an effective way of simulating the process of thinking.

The best case studies provide an ideal chance to test learners' ability to complete an in-depth investigation of a problem. Learners will be able to use new concepts in applied problems. As learners work through the details of the case study, they will identify the issues at hand. Then they will begin the process of sifting through the data and information. They may even search for additional information. They will identify what is important and begin designing a plan of action.

Instructors will work to help the learner reflect on the process of solving the problem. The instructor can help the learner rethink faulty or incorrect uses of a concept as a solution. The instructor can reinforce and emphasize why some strategies are more likely to succeed. The best part of the case study method is that the learner can *think* about several problems to gain *experience* in a no-risk environment. The environment is no risk because the learner does not experience the downside of poor decisions.

Attributes of a Good Case Study

The very best case studies must:

- * Address a relevant and interesting issue
- * Force the learner to make a decision regarding a conflict
- * Describe the context of a recent issue quickly, but thoroughly
- * Recreate the process of the original decision maker

A good case is relevant to the reader/learner and focuses on an interesting issue. The case study will motivate the learner simply by arousing the learner's curiosity. The human inclination to solve problems will encourage the learner to read the case study and begin solving the issue at hand. While a case study regarding applying fertilizer to corn grown in the US might effectively illustrate the concept, a producer in Africa would be more interested in a case study on applying fertilizer on crops they will actually grow.

A good case provokes conflict. The issue at the center of the case study is the reason for the learner to press on. In addition, the case must require a decision to be made. If the learner is to become an expert decision maker, then the case study represents practice of this process. It should be noted, however, that several paths can result in the same decision. Also, many problems have no "right" decisions, but simply have "better" decisions. The emphasis is not necessarily on which decision is made, but the process of arriving there. For example, there are many ways to determine at what price a producer should sell her goods. Many of those methods might even arrive at the same pricing decision. The actual value chosen for the price is less important than a learner working through the process.

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A good case tells a story. The story is about the relevant pieces of information used in making a decision. It is better if the case is set in the past five years, though some old cases can effectively illustrate a modern issue. The story should be kept as short as possible. A learner would struggle mightily if faced with all the information a decision maker faces. Thus, the case is simplified in nature to help the learner build experience and confidence in making a decision. The story should not, however, be so short as to omit important details. The writer of a case must balance length with context carefully. Even though a case is very specific to a particular issue, learners should be able to apply the lesson of the case to other issues. In this sense the case must have some degree of generality.

A good case creates empathy with the central character(s). The goal of the method is to put the learner into the frame of mind of the decision maker that faced the issue. In this way the learner will be able to *think* through the issue in a way similar to the decision maker. Thus, good cases typically include quotations from the main character. They also include photos and relevant pieces of information used by the decision maker.

Writing a Case Study

Writing a good case will require the writer to:

- * Evaluate potential cases
- * Collect data
- * Present the material with the learner and learning setting in mind
- * Convey the information in a brief, thorough, conversational manner

Good case writers will identify many possible case studies. The array of choices should make clear that some cases are more likely to interest learners. It is important that identified case studies address a problem worth considering. Also, an individual who is willing to share his/her experience with the problem is necessary. These become the overriding factors to consider when identifying cases. Potential cases must also be relevant to the concept(s) being taught.

Barnes, Christiansen, and Hansen (1994) identify eight characteristics of good case material:

- * The story is a web of decisions
- * The decisions involve a decision maker who is often under pressure
- * The story occurs in a generalizable setting
- * A few individuals involved in the story are available to share their experiences
- * The case has one broadly applicable theme
- * The story has one major decision point
- * The events were perplexing to the decision maker
- * The case yields decision processes that can be used in other decision settings

Once a writer has settled on a case, s/he must collect the data. This will require several hours of interviewing key players and collecting information used in the decision making process. Like all research, the writer must be careful to be objective in collecting the data. The writer must take great pains to present the case as it occurred, rather than as s/he might have preferred it occur. S/he must dedicate space to describing in detail the actions of the key players. Judgment of the key players, however, has no place in a well written case study.

After the writer has collected the relevant information the material needs to be presented with the learner and the learning setting in mind. As with all good writing, starting with one's audience is critical in presenting the material. Some learners might be just finishing a high school or college education. They would have very little experience with which to relate the new case study problems. Some learners might have years of experience in their profession, but are learning new skills. They might be able to more easily sift through complex details and extra information given their skill in solving their own problems. A challenge for an extension case study might be that the backgrounds of the learners is so broad, that striking a balance between simplicity and richness can be a challenge.

The writer must also keep the learning setting in mind. The writer must consider the amount of time the learners will have together to discuss the case study. Also, the writer will need to know if the case study can be provided to learners ahead of time. This will ease some time pressure when coming together. The writer might also want to consider how teamwork and discussion will factor into the case study.

Finally, with the audience in mind the writer needs to strike a balance between brevity and thoroughness. It is important to note again that the skill of the learners to sift through complex problems will be the key in striking this balance. Learners new to problem solving should not be so overwhelmed by the complexity of the case that they simply give up solving the problem. The writer must provide enough detail, however, for the learner to understand the process of *thinking* through the problem.



Typically, a writer that approaches the case study with a conversational tone will have an easier time gaining the interest of the learners. When the learner can identify with one of the key players, they can more easily take on the role of decision maker. Thus, writers should try to include several quotations and conversations into the case document. Information about the key participants can help provide context and make the case more readable.

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Using a Case Study

You can write your own cases, but you may be able to find cases already written that are appropriate for your purposes and are motivating for your clients. Example cases can be found on the Internet. The major problem in teaching by cases involves going from the learners' fascination with the particular case to the general principle or conceptual structure. In choosing a case to discuss, the teacher needs to think, "What is this case a case of?"

Typically the case method involves a series of cases, but in some case method courses the cases are not well chosen to represent properly sequenced levels of difficulty. Often, in order to make cases realistic, so many details are included that beginning learners lose the principles or points the case was intended to demonstrate. Instructors attempting to help participants learn complex principles in problem solving need to choose initial cases in which the differences are clear and extreme before moving to more subtle, complex cases. Typically, one of the goals of the case method is to teach learners to select important factors from a tangle of less important ones which may nevertheless form a context to be considered. One does not learn such skills by being in perpetual confusion, but rather by success in solving more and more difficult problems.

Usually cases are presented in writing, but you can use a videotape or you can role-play a problem situation. (Role playing is like a drama in which each participant is assigned a character to portray, but no lines are learned. The individuals portraying specific roles improvise their responses in a situation – a situation that presents a problem or conflict. Role play is also an effective way to engage learners.)

Whatever method you use to present the problem, you should allow time for participants to ask questions about the process they are to use and to clarify the nature of the problem presented.

You should clarify ways of going about the case study, such as:

- * What is the problem?
- * Develop hypotheses about what causes the problem.
- * What evidence can be gathered to support or discount any of the hypotheses?
- * What conclusions can be drawn? What recommendations? Make it clear that there is no one right answer.



If the case study is part of a series of meetings, very likely you will want to form teams. Be sure to take time for the teams to agree on when to meet and to determine what they will do before meetings. Some problems may involve work extending over several meetings. When the teams report, your role is primarily to facilitate discussion – listening, questioning, clarifying, challenging, encouraging analysis and problem solving, and testing the validity of generalizations. You may want to use a chalkboard, overhead visuals, or a computer to keep a running summary of points established, additional information needed, and possible ethical or value considerations. Don't forget to include the evidence supporting alternative approaches.

If the case is one that actually occurred, participants will want to find out what actually was done and how it worked out. You can have a productive discussion about how the actual process, variables considered, or strategies used differed from those in the class. Sometimes you might bring in someone working in the field so that the participants can see how an expert analyzes the case, and also ask questions about what really happens in practice.

Summary

Remember, case studies are just one type of problem-based learning. Case studies rely on learners' natural curiosity to motivate learning. An instructor using the case study method should choose an interesting, relevant case study to engage the learner. The discussion should focus on the process of solving the problem. Ultimately the method gives learners the opportunity to *think* through a problem to gain *experience*.

References

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