Chapter 3
Using Entertaining Metaphors in the Introduction of the Case Method in a Case-Based Course

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Abstract This chapter shows one way of using entertaining metaphors in the introduction of the case method in the introductory session of a case-based course. The use of entertaining metaphors is based on the idea that academicians should incorporate entertainment in the teaching and learning environment. Students are often easily attracted to the rapidly progressing world of amusement and entertainment, and away from the often rigid and dry world of education. For the long-term benefit of society, teachers should make the world of education more attractive. Academicians can accomplish this by incorporating entertaining material in their courses. Entertaining material, as well, plays an important role in education, as the emotion evoking qualities of such stimuli have a profound impact on learning. This approach also enhances visualization, motivation, and association in student learning.

3.1 Introduction

The purpose of this chapter is to show how professors can use entertaining metaphors when introducing the case method to their students. Students are often educated by the lecture method and, therefore, the use of the case method is new and frustrating to them. They require an introduction to the case method, which is both foundational and friendly. The foundation of the case method is best introduced in simple terms and should be compared with the lecture method, with which students are most familiar. The friendly environment is best created with an approach that is most comforting to them, i.e., entertainment. This chapter shows how such a foundational and friendly introduction can be made by utilizing entertaining metaphors.

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This chapter shows how entertaining metaphors can be used to increase attraction to, and learning in, the introductory session of a case-based course when the case method is introduced. Its major emphasis is on the idea that academicians should incorporate entertainment in the teaching and learning environment. The crucial role of education in the advancement of society cannot be overstated. Students are often easily attracted to the rapidly progressing world of amusement and entertainment, and away from the frequently rigid and dry world of education. For the long-term benefit of society, teachers should make the world of education more attractive. Academicians can accomplish this by incorporating entertaining material in their courses. Entertaining material, as well, plays an important role in education, as the emotion evoking qualities of such stimuli have a profound impact on learning.

This chapter shows one way to include entertaining metaphors in the introduction of the case method. It utilizes an audiovisual approach, to affect those senses in students, in order to enhance attraction and communication of the materials discussed. The audio component is performed by the professor. The visual component is covered by transparencies[1] (or a slide show) shown on an overhead screen. The transparencies consist of drawings and cartoons[2] that are used as metaphors. This approach enhances visualization,[3] motivation, and association in student learning.[4]

The chapter is organized as follows. Section 2 discusses the role of humor and metaphors in learning. Section 3 demonstrates how entertaining metaphors can be used in the introduction of the case method. Section 4 is the conclusion.

3.2 The Role of Humor and Metaphors in Learning

It is worthwhile to briefly review the literature that addresses the effect of entertainment and metaphor in education; express my own experience; then move on to an application of a combination of both in the introduction to the case method.

[1] These transparencies can be scanned and turned into a slide show.

[2] These drawings and cartoons were collected long time ago, and therefore, at the present time, the author of this chapter cannot find the origin of the drawings and cartoons. The authors of these drawings and cartoons are welcomed to contact the author of this chapter to claim copyright when they see their drawings and cartoons.

[3] Remember, a picture is worth a thousand words.

[4] This chapter follows Ardalan (1998) and expands on it. See also Ardalan (2008a, b, 2009).

3.2.1 The Role of Humor

There are benefits to the use of entertainment and humor in teaching (Banas et al. 2011; Berk 1998; Garner 2005; Glenn 2002; Hill 1988; McCloskey 1990; Pollio and Humphreys 1996; Powell and Andersen 1985; Ziv 1988). It has been shown to have both psychological and physiological effects on learners. Psychologically, humor and laughter reduce anxiety, decrease stress, enhance self-esteem, and increase self-motivation (Banas et al. 2011; Berk 1998; Martin 2007; Mottet et al. 2006). Humor can help an individual engage the learning process by creating a positive emotional and social environment in which defences are lowered and students are better able to focus and attend to the information being presented. Additionally, humor can serve as a bridge between educators and students by creating a shared understanding and a common psychological bond (Glenn 2002).

Physiologically, humor and laughter can aid learning through improved respiration and circulation, lower pulse and blood pressure, exercise of the chest muscles, greater oxygenation of blood, and the release of endorphins into the bloodstream (Berk 1998; McGhee 1983).[5] The healing effects of laughter and humor can reduce anxiety, help relieve stress, and increase mental sharpness, which are all desirable in pedagogical settings (Cousins 1991; Evans-Palmer 2010; Neumann et al. 2009). Students pay more attention to humorous than non-humorous material.[6] Students rehearse humorous material more than non-humorous material and the increased rehearsal, in turn, results in higher retention rates (Atkinson and Shiffrin 1968; McCartney-Matthews 2011; Schmidt 2009). There are also the elements of surprise and retrieval strategies. Students may not expect to encounter humorous materials in their experiments. In their retrieval, students may be biased with respect to retrieving humorous material or retrieving humorous material before non-humorous material.

The factors described above do not necessarily operate in isolation. Thus, physiological arousal may result in increased attention to some material. Increased attention may, in turn, result in increased rehearsal.

There is a growing body of research relating the use of humor and its positive effects on teaching and learning (Civikly 1986; Garner 2006; Skinner 2010). Students indicate that humor can increase their interest in learning, and students who have teachers with a strong orientation to humor tend to learn more. Humor as a pedagogical tool can initiate and sustain student interest and provide a means to engage in divergent thinking (Dodge and Rossett 1982). A humorous atmosphere

[5] See also Bohannon (1988), Brown and Kulik (1977), Christianson (1989), Christianson, Loftus, Hoffman, and Loftus (1991), Craik and Blankstein (1975), Ellis, Detterman, Runcie, McCarver, and Craig (1971), Heuer and Reisberg (1990), Maltzman, Kantor, and Langdon (1966), Pillemer (1984), and Walker and Tarte (1963). For a broad review, see McGhee and Goldstein (1983).

[6] See Deckers and Devine (1981), Deckers and Hricik (1984), Isen (1985), Kaplan and Pascoe (1977), Kintsch and Bates (1977), Ohman (1979), Schmidt (1991, 1994), Suls (1972), Wanzer et al. 2010, and Zillmann, Williams, Bryant, Boynton, and Wolf (1980).

in the classroom positively impacts student scores on divergent thinking exercises (Ziv 1983, 1988). College students report that learning is enhanced by the inclusion of instructionally appropriate humor (Korobkin 1989; Wanzer et al. 2010). Students often have better recall of a message if it is presented with humor (Garner 2006; Hill 1988).

Students appreciate and enjoy the use of humor in the classroom (Berk 1996; Brown and Tomlin 1996; Bryant et al. 1997, 1980; Garner 2006; Pollio and Humphreys 1996). College students in describing the positive attributes of good teachers frequently mention "sense of humor" (Brown and Tomlin 1996; Buckman 2010; Kelly and Kelly 1982).

Humor establishes a connection between the instructor and the student, which is the key to effective teaching (Pollio and Humphreys 1996). Effective college teachers are most often described as "enthusiastic," and a strong sense of humor plays a major role in developing a positive learning environment (Lowman 1994; Lukehart 2009). The appropriate use of humor that fosters mutual respect enhances teaching effectiveness, and humor increases student receptivity to material by reducing anxiety in dealing with difficult material and has a positive effect on test performance (Bryant et al. 1980; Kher et al. 1999; Mantooth 2010). The positive environment of a humor-enriched lecture increases the attendance in class (Buchultz et al. 2011; Devadoss and Foltz 1996; Romer 1993; White 1992).

Humor should be used cautiously, however, as it can be an effective medium for communication or a social impediment in pedagogical settings (Garner 2003; Torok et al. 2004; Zhang 2005). The use of humor can be complicated because it may be highly personal, subjective, and contextual and it cannot always be predicted the way it will be received. Everyone has a unique perception of what is humorous and defines the "sense of humor" differently (Garner 2003; Wanzer et al. 2010). Furthermore, the effective use of humor is not akin to mere joke telling, e.g., some instructors with only average student evaluations used twice as much humor as those faculty members who were more highly rated (Rhem 1998). For humor to be most effective, it must be specific, targeted, and appropriate to the subject matter. In practice, a humor may be identified as either one of the four appropriate humor categories or one of the four inappropriate humor categories (Bekelja-Wanzer et al. 2006).

Student responses confirm that teachers who use humor in their classes aid the learning process. Humor has been said to: (1) improve attitudes toward the subject, decrease anxiety, tension, stress, and boredom; (2) increase comprehension, cognitive retention, interest, and task performance; (3) increase motivation to learn and satisfaction with learning; and (4) promote creativity and divergent thinking (Willard 2006).

3.2.2 The Role of Metaphors

Metaphor and analogy are fundamental cognitive tools, which are used by scientists in their expert investigations (Diehl and Reese 2010; Dunbar 1993, 1995; Hesse 1966; Ng 2009), by young children (Goswami 1992; Pramling 2010), and students in their efforts to understand complex phenomena (Braasch and Goldman 2010, Mason 1996; Orgill and Thomas 2007; Paatz et al. 2004; Wormeli 2009).[7] In an analogy, the similarities between two situations, phenomena, or events are identified, and the relevant information is mapped from a more familiar domain to a less familiar one.[8] In other words, analogy is essentially the transfer of a relational structure from a known domain, the source, to a lesser or unknown domain, the target (Garner 2005; Richland et al. 2004).

Analogy helps in connecting information and elaborating more comprehensive and integrated knowledge structures. That is, analogy leads to learning something more general, which is the abstraction of similarities shared by the source and target (Halpern et al. 1990; Harrison and Coll 2007; Prawat 1989; Rumelhart and Norman 1978; Vosniadou and Ortony 1989). Analogical reasoning has been investigated for some time in four-term analogy problems, which are used in IQ tests (Sternberg 1977).

When dealing with a much more complex phenomenon, a much more sophisticated process should be followed for analogical reasoning and learning (Brown and Salter 2010; Gentner 1983, 1989; Gick and Holyoak 1980, 1983). One way would be the structure-mapping approach, which refers to a structural alignment between domains. Only relational similarities shared by the source and target are preserved in the mapping of systems of predicates linked by higher-order relations, that is, relations between relations. For instance, in the analogy between the atom and the solar system, predicates such as "bigger than" or "hot" are not mapped from the source to the target, but predicates such as "cause" are. That is, systematically, a preference for interconnected systems of relations governed by higher-order relations characterizes the structural alignment (Gentner 1983, 1989; Steinhart 2001).

Another way would be multi-constraint approach, which deals with how individuals are driven by three different types of constraint in the use of analogy: similarity, structure, and purpose. At any level of abstraction, correspondences of similarities between the concepts are implied in an analogy. Moreover, structural parallels between the source and target domains underlie analogical mapping. Finally, the analogy is used toward researcher's goal (Holyoak and Thagard 1989, 1995, 1997; Ruiz and Luciano 2011). All different approaches in analogical

[7] See also Gibbs (2008), Holland, Holyoak, Nisbett, and Thagard (1986), and Holyoak and Koh (1987).

[8] See Gentner and Gentner (1983), Halpern (1987), Rigney and Lutz (1976), Royer and Cable (1976), Rumelhart and Norman (1981), Schustack and Anderson (1979), and Zheng and Song (2010).

reasoning emphasize the mapping process through which source features are transferred to the target and a more abstract structure connecting the two domains is elaborated.

Analogy, as a cognitive tool in learning processes, mainly facilitates the coding and organization of knowledge,[9] access to and retrieval of knowledge from memory,[10] and overcoming misconceptions. Different models for teaching scientific analogies have been proposed (Brown and Salter 2010; Dagher 1997), such as bridging analogies (Brown and Clement 1989; Brice and MacMillan 2005), multiple analogies (Chiu and Lin 2005; Spiro et al. 1989), elaborate analogies (Paris and Glynn 2004), student-generated analogy (Spier-Dance et al. 2005; Wong 1993), or structural alignment (Mason 2004) models. In general, analogies are powerful tools in teaching and learning at all school levels in certain conditions (Dagher 1997; James and Scharmann 2007; Oliva et al. 2007). First, a source domain from which to draw relevant information should be accessible to students. For instance, in order to use water pump to help students understand electric circuits, students must have some knowledge about water pumps and how they work. Second, students should be able to identify the structural similarities between two domains to produce an appropriate transfer. Third, students should know for what purpose they are using the analogy. If these conditions are not met, analogies may mislead students' thought processes (Dagher 1995; Duit et al. 2001; Glynn et al. 1995; Mason 1994; Ruiz and Luciano 2011; Treagust et al. 1996).[11]

3.2.3 Personal Experience

My own experience in using entertaining metaphors has been positive. In the winter of 1993, I started to gradually use them in my classes. Since then, I have gathered more and more ideas, cartoons and illustrations. On a casual basis, I have found them, over and above what has been discussed previously, to be beneficial to the class by adding new dimensions, and creating a friendlier, relaxed environment. These characteristics encourage the students to be more attentive and interested in classes, and the course as a whole. Some indications, supporting this position are, for example, that a part-time M.B.A. (Master of Business Administration) student, who had passed the course, came back and sat through it again. Another part-time M.B.A. student asked me for a copy of the cartoons and illustrations, because he was going to use them in his presentations at work. Other

[9] See Hutchison and Padgett (2007), Mayer and Gallini (1990), and Paivio (1971, 1986).

[10] See Halpern (1987), Hayes and Tierney (1982), Mayer and Bromage (1980), Pena and Andrade-Filho (2010), and Schustack and Anderson (1979).

[11] See also Gibbs (2008), Glynn, Britton, Semrud-Clikeman, and Muth (1989), Halpern (1987), Rogers (1960), Spiro, Feltovich, Coulson, and Anderson (1989), and Vosniadou and Schommer (1988).

students have indicated that they like the cartoons and illustrations that were displayed in this course. These indications prompted me to write this chapter in order to share my experience with colleagues.

3.3 Introduction of the Case Method

The lecture method is an efficient method when the transfer of knowledge is the primary objective. However, when the objective is critical thinking or problem-solving, the case method offers substantial advantages. To prepare for the case method, both teachers and students must modify their traditional roles and responsibilities.[12]

Students are often brought up in an educational system, which is based on the lecture method, with much structure, certainty, and control. To them, the use of the case method is new and frustrating. In the case method, students are faced with uncertainty, difficulty, and complexity, which they must organize and manage it.

The foundation of the case method[13] should be introduced to them in a friendly manner. The foundation is best introduced in simple terms and should be compared with the lecture method, with which they are most familiar. This is because there is a good deal of un-teaching and un-learning involved.

The lecture method has great advantages: It is efficient, and it is economical of the time, energy, and the patience of instructor and student. Students seem to possess a sureness, a precision, a firm understanding, which is remarkable for the relatively short time which they have spent on acquiring their knowledge.

Compared to the lecture method, the case method has a different purpose and brings about a corresponding different result. Businesspeople must be able to solve practical problems that arise in new situations. Accordingly, education should consist of acquiring the ability to act in new situations. That is, the focus of education is not gaining knowledge but gaining skills to act.

The introduction can be made friendly by utilizing entertaining metaphors. This chapter shows how these can be accomplished generally in any business course, with some specific reference to finance, in which the use of the lecture method is often more prevalent than it is in other areas in business education.

The entertaining metaphors approach is an audiovisual one. The audio component is performed by the professor. The visual component is covered by slides shown on an overhead screen. The slides consist of exhibits, which are used as metaphors. This approach enhances visualization, motivation, and association in student learning.

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[12] The author has heavily benefited from the insights of Erskine et al. (2003) and Mauffette-Leenders et al. (2007). See also Christensen (1991) and Christensen and Hansen (1987).

[13] For a foundational comparison of the lecture and the case method in a philosophical context see Ardalan (2003a and 2003b). See also Ardalan (2006, 2008a, b, and 2013).

This chapter focuses on the use of entertaining metaphors in the introduction of some of the most fundamental aspects of the case method. The discussion of the other aspects of the case method can be added as well.

The entertaining metaphors are so because they are cartoons and metaphorical. They are in the form of transparencies that are shown on the overhead screen while the professor introduces the course and the field. The professor discusses the topic without any reference, for the most part, to what is being shown. It is the students' role to relate what the professor is discussing to what is displayed on the overhead screen. In fact, for the student, finding the relationship between what the professor is discussing and what is being exhibited, makes the metaphors even more entertaining. The entertaining metaphors are placed at the end of this chapter.

In the following presentation, the exhibit or slide number appears first. Next, there is a short description of the relevant material discussed in class. The slides are placed at the end of the chapter.

Exhibit 1: At the beginning of a case course, students naturally have many questions regarding different aspects of the case method: What is involved in a case? and What is required of them?

The educational goal of the case method is for the students to gain practical knowledge and to be able to apply logical and correct reasoning in every subject. The case method has proven itself a most effective educational vehicle in situations where decisions are required and issues must be solved. The case method is participatory, student oriented, and involves active learning environment.

A case is a description of an actual situation, which commonly involves a challenging problem or issue that requires a decision by a person (or persons) in an organization.

A case is a partial, historical, clinical study of a real-life situation that is faced by an administrator or managerial group. It provides substantive and process-related data that are essential to an analysis of the situation. It requires the listing of alternatives, a decision for action, and its implementation, which recognize the complexity and ambiguity of the practical world. A case is usually presented in narrative form and encourages student involvement.

A case is a record of an actual business issue that includes the surrounding facts, opinions, and prejudices upon which executive decisions would depend. These real and specific cases require students to analyze, discuss, and finally decide on the necessary action that should be taken.

In the case method, students should place themselves in the shoes of the decision maker in the business situation in order to decide what is to be done about the issue at hand. The case is basically a complex puzzle and students are required to make a decision with respect to the issues involved. Students bring their own values, age, gender, background, theoretical and practical understanding, training, skills, expertise, biases, and culture into the position and the situation in place. The decision, issue, or opportunity becomes theirs. Taking this responsibility is one of the major challenges in the use of cases. It is much easier to stay as an outside observer, as required by the lecture method.

In a case, there is usually an immediate issue that refers to a specific decision, problem, challenge, or opportunity faced by a decision maker. In real life, a case is not normally repeated, therefore, the purpose of being concerned with the immediate issue of a case is to develop an understanding of the basic issues underlying it. This is because basic issues tend to be commonly present. Dealing with the details of a case helps in developing an approach, which is generalizable to other situations.

Exhibit 2: There are two fundamentally different views on how to approach a problem. The view that underlies the lecture method encourages a microscopic look at the details of the issue at hand. On the other hand, the view that underlies the case method encourages not only a deep look at the details, but also a global look.

Exhibit 3: The view that underlies the lecture method, with its emphasis on objectivity and the observation of the object by as an observer, encourages the finding of exact relationships among the elements of a given phenomenon or issue. We see this approach in the current standard business courses and textbooks, e.g., in finance,[14] where detailed relationships is mostly expressed in exact mathematical terms. Note that, although the level of mathematics at the introductory level is not in any way high, in advanced graduate courses, sophisticated mathematics is used.

Exhibit 4: In the lecture method, therefore, the professor spends most of the class time at the board deriving or applying those exact relationships.

In the lecture method, teaching is telling, knowledge is facts, and learning is recall. Teachers deliver factual information, and students receive it. Learning is satisfactorily completed when the student successfully transfers factual material back to the teacher at a specific time. Students go through an educational process, which is devoted to finding answers, by applying rigorously defined methods to questions or problems carefully posed by others. When these students first encounter the case method of instructions, they become uncomfortable, confused, and ineffectual. In the case method, the students' role, expectations, and responsibilities are much different than in the lecture method. The student is responsible for doing a thorough analysis of the case at hand.

Exhibits 5 & 6: The view that underlies the case method encourages the interpretation of the details as well as the big picture. Let us look at exhibits 5 and 6 to see that this is, in fact, what we do in our daily lives.

Consider the calendar that we use every day. Exhibit 5 shows where we note our appointments and plans for each hour on any specific date, Wednesday, March 20, 2012. We certainly make those plans with a view to the rest of the week, for which we have other plans. The whole week is shown on both pages of the calendar. Then again, our weekly plans are made within our monthly ones. For

[14] See, for example, Brealey, Myers, and Allen (2011), Brealey, Myers, and Marcus (2012), Brigham and Ehrhadt (2011), Brigham and Houston (2009), Keown, Martin, Petty, and Scott (2008), Ross, Weterfield, and Jaffe (2008a), and Ross, Westerfield, and Jordan (2008b).

example, our plans for March and April, which are shown on the lower half of the right-hand page of the calendar, contain the week of March 20. Our monthly plans are, in turn, made within our longer-range plans for the years 2013 and 2014. This is placed at the beginning of the same calendar, which appears in exhibit 6. In the same way, we approach business cases. We look at details within a company, but never lose sight of the big picture.

Exhibits 7 & 8 and 9 & 10: The case method places great emphasis on the role of the context. Each case needs to be seen in context, not only in terms of topic or theoretical coverage, but also in its other dimensions. This plays a crucial role in what we see, in our interpretation of the case and in the issues under consideration. In exhibits 7 and 8, whether we see the same object as "a man washing his face" or "an embrace" reflects the important role of the context in which we interpret information. As another example, in exhibits 9 and 10, whether we see "three penguins" or "three Asian gentlemen" reflects the critical role of the context in what we see.

A case mostly provides information about the background of the organization as well as the industry. That is, such information provides the context for the issue, which emphasizes one of the prime reasons for using cases. In a case, there are several decision options and the preferred one depends on the circumstances, i.e., the context. In other words, cases are useful because there do not exist standard universal solutions.

Exhibit 11: By big picture and context, we mean, what goes on in the industry, and in the national and international economies. For instance, the national budget deficit, which is a major macro-economic variable, affects all aspects of the economy and the businesses operating within it.

Exhibit 12: In the lecture method, knowledge is expressed in the form of a speech. The student is not only almost always disallowed to see anything different from the lecturer, but is also required to replicate and repeat what the lecturer has presented. There is almost no allowance for the student to see the case, or the phenomenon, for himself or herself, share his or her views, and obtain insights from the views expressed by others. The lecture method of teaching and learning reminds one of ancient drawings, in which artists were limited in dimensions and in which there was almost no opportunity for them to express themselves to any great extent.

Exhibit 13: Comparing the previous exhibit with this one is like comparing the lecture method to the case method. In this exhibit, the third dimension is brought in, and we clearly see the role and place of the artist in the drawing, as well as the drawing itself. Moreover, the artist sees the room in a special way, which is different from how most of us are accustomed to seeing a room, i.e., rectangular. The artist is seeing the room in a unique way and is sharing it with us.

Exhibit 14: We have much in common. We have some similar interests, values, and behaviors.

Exhibit 15: Most importantly, we all like, and are interested in, business administration.

Exhibit 16: However, there are differences among us. We come to the class from different backgrounds and with different intentions.

Exhibit 17: Some of us may be interested in going into detail, while others may not be that patient. Or, some of us may be interested in and familiar with some aspects of an issue, while others may be interested in and familiar with other aspects of it. Or, some of us may see the case in a certain way, whereas others may see it in a different way.

Exhibit 18: In the case method, we discuss cases. This is because each one of us interprets the case differently and looks at different aspects of it. To see this, let us look at exhibit 18. What do we see? Do we see "a cowboy hat?" Or, do we see "a man?" Or, do we see "a man at the barber?" Or, do we see "a man wearing a turban?"

The case method regards truth as relative, reality as probabilistic, and structural relationships as contingent. Therefore, teaching and learning are most effectively accomplished through discussion rather than exploration. The case method regards real-world phenomena as being complex and simple theoretical relationships as having limited use. Therefore, direct communication from the teacher to the student is of little value. The emphasis of the learning process should be on the development of understanding, judgement, and intuition.

Exhibit 19: Each of us likely sees a case differently. This constitutes a spectrum for analysis and discussion. A group of us will have a similar interpretation that differs from the rest. But even that group, within itself, contains a spectrum of finer interpretations. This is very much the same as the spectrum of colors from a prism. In the same way that combining all the colors together creates a clear white light, combining our different viewpoints creates a clear view of the case.

Exhibit 20: The case method states that each one of us sees the case from a different angle, and it is by sharing, and putting these together, that each one of us obtains a better perspective. The case method of learning focuses on the discussion of the cases, where the joint stakeholders are teachers and students.

Exhibit 21: As we have noted, each one of us noticed a different aspect of the object; and, by sharing our observation with the rest, we came to a better understanding of the object we saw. We approach cases in the same way. That is, each of us first analyzes the case individually, then within a small group. Afterward, we collectively discuss what each one saw, and how each one analyzed it and made a decision. Next, we exchange our ideas to get a better understanding of the case and make our own decision.

In order to enhance expression and exchange of ideas, participants should be well-prepared for small group discussion. Each participant uses his or her own understanding and experience to analyze the case.

In the case method, the analysis involves the problem-solving model that consists of the following steps:

(a) What are the objectives of the organization?
(b) What is the decision or the problem?
(c) What are the key relevant facts?
(d) What are the alternatives?
(e) What are the decision criteria?
(f) What is your analysis of the alternatives in view of the decision criteria?
(g) Which alternative do you recommend?
(h) What is your plan of action for implementation and what results do you expect?

Decision making is complex when students are faced with several issues with multiple objectives and decision criteria. Typically, there are several sensible course of action to a case. What is important is the students' analysis based on the available information and the student's justification for deciding on a certain alternative. Indeed, each student creates a path to an answer.

In the case method, we learn by doing and by teaching others. What we learn becomes second nature and stays with us. By identifying, analyzing, and solving issues in a variety of cases, we become prepared for our professional work. The case method of learning is based on the philosophy that students learn better by being actively involving in their own learning.

Exhibit 22: Class participants should do their homework first by themselves, then with their group members. They should not ask for easy outside help. In this way, they learn the material better, and their problem-solving skills improve much faster. Normally, cases do not have right or wrong answers. The quality of students' solution depends largely on their decision-making skills. Students should look at the case solving tasks as a process and manage it as a process.

Exhibit 23: In discussions, participants are free to express their views, values, and attitudes with respect to any aspects of the case. They should feel free to let others know what their views are. Other participants will balance their views and preferences and change the way they saw the case accordingly. But, if some participants do not make changes in their views as per suggestions made by others, it is not that they have neglected those contributions. But, rather, that there are other views and values involved which are more persuasive to them.

Usually, each group has a variety of skills, cultures, experiences, and expertise. Group discussion is enriched by the variety of perspectives from members with diverse backgrounds. A balance of quantitatively and qualitatively oriented members improves the overall learning from the group discussions. Group members share their ideas and insights. They collaborate, rather than compete. Each student reaches his or her own decisions based on individual preparation and small group discussion.

Exhibit 24: Everyone should be open to suggestions. The case method strives on "the give and take" involved in case discussions. Small group discussion provides students with opportunities to check their insights, assumptions, and preparations against those of others; clarify their understanding; listen attentively and critically to others; and argue for their positions based on their individual

preparation. Small group discussion uses the group synergy to push beyond the analysis reached by each individual member.

Exhibit 25: After the participants do the cases by themselves and discuss them in small groups with their group members, they come to class better prepared, then the cases will be discussed in the class. It is important that everyone should feel free to express his or her ideas. The professor will express his or her analysis as well. Do not forget that his or her views are as good as that of any other participant. The professor also facilitates the discussion and the decision-making process and his or her emphasis will be to make sure that the learning process is on proper route.

The advantage of the case method is that different analyses usually produce different correct answers. In other words, there is no one correct answer to a case. Keep in mind that, due to their nature, case classes often appear disorderly since they cannot be programmed as in the lecture method.

Effective students display the following characteristics:

1. They prepare, both through reading and analysis of the case under consideration.
2. They offer their viewpoints where these differ from the class in the expectation of:
   (a) Improving their thinking and skills at analysis.
   (b) Improving the class development of the case.
3. They develop their theoretical and conceptual model(s) of the field under study, as well as their skill at problem-solving.
4. They make inferences or generalizations from each case vehicle undertaken.

Exhibit 26: In the end, participants can make their own informed decision with respect to the issues in the case because they will have a much better view of the whole case than the limited view with which they initially started. The case method process is inductive, unlike the lecture method that is deductive.

Although every case is different, the process of learning how to learn is generalizable. The case method provides students with the opportunity to develop a diverse set of skills:

1. Analytical skills
2. Critical thinking skills
3. Decision-making skills
4. Application skills
5. Oral communication skills
6. Time management skills
7. Interpersonal or social skills
8. Creative skills
9. Written communication skills.

The fundamental principles underlying the case method and its ability to involve the student in a highly personal learning experience may be summarized as follows:

1. The primacy of situational analysis,
2. The imperative of relating analysis and action,
3. The necessity of student involvement,
4. A non-traditional instructor role, and
5. A balance of substantive and process teaching objectives.

3.4 Conclusion

This chapter showed how entertaining metaphors can be used to introduce in simple terms and in a friendly manner some of the most fundamental views and principles that underlie the case method to students who have not been exposed to the case method at all and, therefore, find it new and frustrating.

This chapter showed how entertaining metaphors can be used to introduce the case method. In order to make the world of education more attractive to students, academicians can incorporate entertainment in their courses. Given the importance of the introduction to the case method, this chapter made an attempt in that direction. This approach has the capability of being applied to other fields and subfields of study. The author, as well, has successfully used this approach in the capital structure session and capital markets session of an introductory finance course.[15]

[15] See Ardalan (2008a, b, and 2009)

Appendix

Exhibit 1

Exhibit 2

And God said,

$$\frac{1}{\mu^2}\frac{\partial}{\partial r}(r^2 D_r) + \frac{1}{r\sin\theta}\frac{\partial}{\partial\theta}(D_\theta \sin\theta) + \frac{1}{r\sin\theta}\frac{\partial D_\phi}{\partial\phi} = 4\pi\rho,$$

$$\frac{1}{\mu^2}\frac{\partial}{\partial r}(r^2 B_r) + \frac{1}{r\sin\theta}\frac{\partial}{\partial\theta}(B_\theta \sin\theta) + \frac{1}{r\sin\theta}\frac{\partial B_\phi}{\partial\phi} = 0;$$

$$\frac{1}{r\sin\theta}\left[\frac{\partial}{\partial\theta}(E_\phi \sin\theta) - \frac{\partial E_\theta}{\partial\phi}\right] = -\frac{1}{c}\frac{\partial B_r}{\partial t},$$

$$\frac{1}{r}\left[\frac{1}{\sin\theta}\frac{\partial E_r}{\partial\phi} - \frac{\partial}{\partial r}(rE_\phi)\right] = -\frac{1}{c}\frac{\partial B_\theta}{\partial t},$$

$$\frac{1}{r}\left[\frac{\partial}{\partial r}(rE_\theta) - \frac{\partial E_r}{\partial\theta}\right] = -\frac{1}{c}\frac{\partial B_\phi}{\partial t};$$

$$\frac{1}{r\sin\theta}\left[\frac{\partial}{\partial\theta}(H_\phi \sin\theta) - \frac{\partial H_\theta}{\partial\phi}\right] = 4\pi j_r + \frac{1}{c}\frac{\partial D_r}{\partial t},$$

$$\frac{1}{r}\left[\frac{1}{\sin\theta}\frac{\partial H_r}{\partial\phi} - \frac{\partial}{\partial r}(rH_\phi)\right] = 4\pi j_\theta + \frac{1}{c}\frac{\partial D_\theta}{\partial t},$$

$$\frac{1}{r}\left[\frac{\partial}{\partial r}(rH_\theta) - \frac{\partial H_r}{\partial\theta}\right] = 4\pi j_\phi + \frac{1}{c}\frac{\partial D_\phi}{\partial t};$$

and there was light.

Exhibit 3

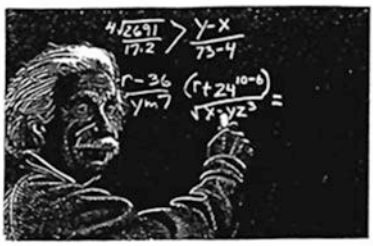

Exhibit 4

Exhibit 5

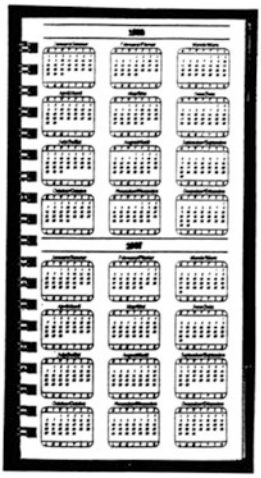

Exhibit 6

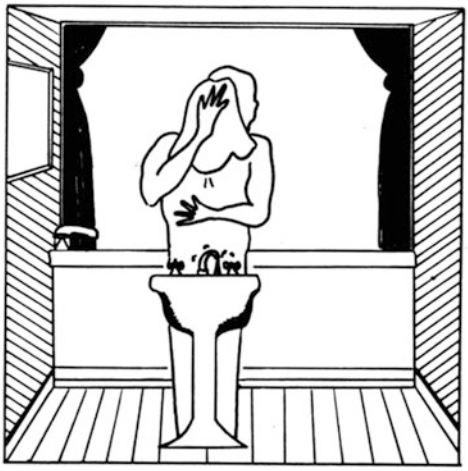

Exhibit 7

Exhibit 8

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Exhibit 18

Exhibit 19

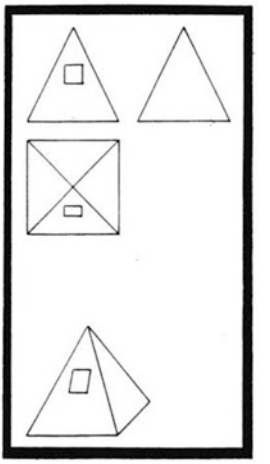

Exhibit 20

Exhibit 21

Exhibit 22

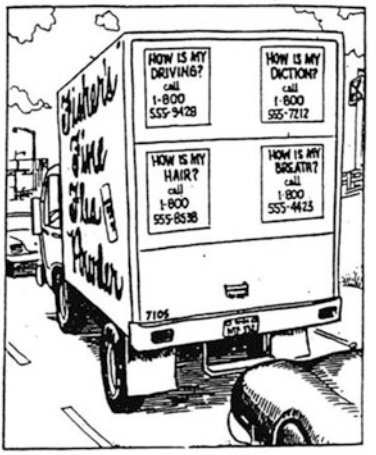

Exhibit 23

Exhibit 24

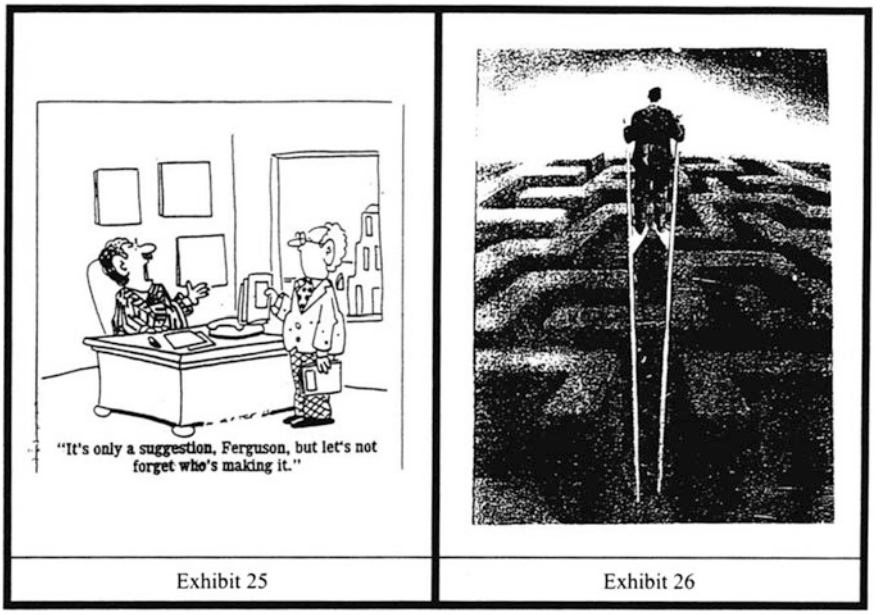

Exhibit 25 Exhibit 26

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