

# Utilizing Case Study Analysis in Online Learning

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## **Abstract**

There are quality learning theories and pedagogies that attract and retain online adult learners using case-based learning as the course design. Proven practices for undergraduate- and graduate-level business management studies are identified along with the challenges that are presented by the online environment. Recommendations are made for instructional design and approaches to successfully engage adult learners in a relevant manner for real-life application of business management concepts and learned skills.

## Introduction

When Harvard Business School initially formed, it was determined that text books were not sufficient for instruction at a more advanced level in the graduate school. The problem was resolved by having faculty interview corporate professionals and record the cases they presented (Copeland, 1954). As the practice developed, various learning objectives were identified which led to the *Harvard Business Review* series being developed and used as a supplement to text books. Other institutions that publish cases include the Richard Ivey School of Business, the Darden School at the University of Virginia, INSEAD, and the European Case Clearing House.

A program-level case study was conducted as a review of case-based learning practices for an online MBA program by Lee, Lee, Liu, Bonk, and Magjuka (2009). These authors believe that the field of business requires multifaceted practices for real-world problems as much, or more than, any other field. A business school expects that application skills and knowledge available to students will be comparable to the skills and knowledge possessed by business professionals. Therefore, creating learning experiences where knowledge can be acquired, organized, and applied is critical. Case-based learning facilitates learning and real-world applicability, a primary concern in the field of business education.

## Background

Case study analysis is a methodology that has been supported by theorists for more than one hundred years. Vygotsky and Dewey were the founding fathers of “learning by doing,” which became the foundation of problem-based learning (PBL) and constructivism. Case analysis is used in the social and human sciences for study and research. Case study analysis was popularized in business schools by Harvard and is an effective way to learn strategic management and business assessment (Copeland, 1954). The foundation theories and the dynamics of learning facilitation for

the adult learner need to be examined to better understand successful instruction of case study analysis.

Ruey (2010) conducted a case study in constructivist strategies for adult online learning. His study included the following theories of constructivist learning:

- Dewey (1938) believed that individual development is dependent upon the existing social environmental context and argued that students should learn from the genuine world through continuous interaction with others.
- Scott (2001) asserted that a constructivist, dialogical instructional approach should focus on learning about “why” and “how.”
- Palincsar (1998) defined the constructivist learning environment as being one where students are encouraged to actively engage in learning by discussing, arguing, negotiating ideas, and collaboratively solving problems, and where instructors serve as facilitators.

PBL has its roots in experience-based education, which is a component of Dewey’s (1938) “learn by doing” theory. Hmelo-Silver’s (2004) study in PBL defines, describes, and summarizes the methodology succinctly:

Psychological research and theory suggests that by having students learn through the experience of solving problems, they can learn both content and thinking strategies. Problem-based learning (PBL) is an instructional method in which students learn through facilitated problem solving. In PBL, student learning centers on a complex problem that does not have a single correct answer. Students work in collaborative groups to identify what they need to learn to solve a problem. They engage in self-directed learning (SDL) and then apply their new knowledge to the problem and reflect on what they learned and the effectiveness of the strategies employed. The teacher acts to facilitate the learning process rather than to provide knowledge. The goals of PBL include helping students develop:

1. Flexible knowledge
2. Effective problem-solving skills
3. Self-directed learning skills
4. Effective collaboration skills
5. Intrinsic motivation (p. 235)

Case-based learning is used in several other professions, including law, the social sciences, and medicine. The study of cases offers the instructor and the student a welcome relief from lecture and an opportunity for active learning and collaboration. Case-based learning was described by Helms (2006) as a method that involves studying actual business situations written as in-depth presentations of companies, and studying markets and strategic decisions to improve the problem-solving abilities of managers and/or students. Cases are typically used to investigate real-life situations where there are multiple issues to consider and various alternatives to solve the case issues presented.

By employing real-life business problems and solutions in case studies, instructors and adult learners can explore their business management skill sets. Lee, et al. (2009) believed that cases direct students to discuss and debate issues dynamically. Williams (2004) summarizes the benefits of case use for teaching and learning by stating that it allows learners to:

- Apply theoretical knowledge to real school contexts
- Reason critically about complex situations and recommend courses of action
- Develop self-knowledge and recognize own assumptions
- Clarify personal beliefs about teaching
- Compare and evaluate their own and other's perspectives
- Develop the practice of reflection (p. 20).

Lee, et al. (2009) asserted that graduate business education has relied upon case-based learning and that many business schools have adopted this approach as a central teaching and learning method. The constructivist approach prompts a shift in traditional instructor/student relationships.

Constructivist theory, problem-based learning, and case-based learning prompt the instructor to serve as a facilitator instead of a teacher. A teacher gives a lecture from the text, while a facilitator assists the learners in their efforts to reach their own understanding of the material. During a lecture the learner plays a passive role. By implementing experiential learning practices, the learner can take an active role in the learning process. The emphasis turns away from the instructor and the content and towards the learner (Gamoran, Secada, & Marrett, 1998). Rhodes and Bellamy (1999) have clearly defined this new facilitator/learner relationship by saying that a teacher tells, a facilitator asks, and a teacher lectures from the front while a facilitator supports from the back. An instructor gives answers according to a set curriculum while a facilitator provides guidelines and creates the environment for the learner to arrive at his or her own conclusions.

Ruey (2010) believes that the facilitator takes on a mentoring role and has the important role of ensuring that the learners engage in critical reflection. Higher-order thinking and giving adequate feedback are critical to the active learning dynamics. Timely, meaningful feedback is decisive to the instructional quality of the online course (Gaytan & McEwen, 2007). "Because of various characteristics of adult learners, an important role of the facilitator is to satisfy learners' diverse learning needs and learning anticipation" (Ruey, 2010, p. 717).

The education of adult learners via an online medium presents unique challenges and opportunities. Online schooling is cost effective, time efficient, and flexible. A report by Moore and Kearsely (2005) indicates that most adult learners are between the ages of twenty-five and fifty. Park and Choi (2009) performed a study to determine the factors that influence adult learners' decisions to drop out or persist in online learning. According to Meister (2002), 70 percent of adult learners enrolled in a corporate online program did not complete. Park and Choi (2009) believe that the numbers are misleading and that careful interpretation is required due to unique characteristics and situations that online, adult learners have. What cannot be controlled but needs to be considered are the following adult learner issues that may contribute to such high dropout rates:

- Do not receive support from their family and/or peers
- Do not receive support from their employer
- Job/career changes
- Workload
- Financial stress
- Time constraints
- Lack of motivation, due to lack of rewards (Park and Choi, 2009)

As educators the issues that can be controlled and can have a possible impact on the adult learners' decisions to persist in online programs include:

- Course design, which leads to student satisfaction:
  - Relevance to learners' jobs
  - Relevance to learners' lives
  - Opportunities to apply newly acquired knowledge to real situations
  - Skills and knowledge obtained from the course are useful
  - Materials and cases closely related to learners' interests, experiences, and goals
  - Assignments that are practical and applicable to the students' life or work
- Instructor communications, which provide motivation for the student to persist:
  - Paying extra attention to counter lack of family, peer, or employer support
  - Supporting the student in getting help when needed
  - Allowing learners to choose learning methods and strategies
  - Allowing learners to assist in setting goals and expectations

Park and Choi (2009) concluded, "Instructional designers should systematically analyze external factors surrounding learners and use the analysis results to initiate learning and motivate learners" (p. 215).

Adults learn differently than children or adolescents because youth have fewer experiences; therefore, their brains can create new structures when they learn. Inversely, adult learners have existing structures due to their years of experience and previously learned lessons (Caffarella, 2001). Huang (2002) discusses how constructivism works for adult learners in online learning environments by calling upon the adult learning theory of Knowles (Knowles, Holton, & Swanson, 1998). Knowles, Holton and Swanson (1998) identified six principles of adult learning theory, which they collectively referred to as andragogy. The first principle is the learner's need to know "how learning will be conducted, what learning will occur, and why learning is important" (Knowles et al., 1998, p. 133). Second, self-directed learning is the ability to take control of the techniques and of the purposes of learning. Third, prior experience impacts learning in creating individual differences, providing rich resources, creating biases, and providing adults with self-identity. The fourth principle is readiness to learn, as adults become ready to learn when their life situations create a need to learn. The fifth principle is orientation to learning in that adults prefer a problem-solving orientation to learning and learn best when knowledge is presented in a real-life context. Finally, the sixth principle is motivation to learn, particularly when learners can gain the new knowledge to help them solve important problems in their life. Constructivism and andragogy are similar in stressing ownership of the learning process by learners, experiential learning, and a problem-solving approach to learning (Knowles et al., 1998).

Online learning, distance learning, and technology are often in conflict with adult learners constructivist, problem-based, and case-based learning approaches. Huang (2002) identified issues that online educators face with adult learning styles:

- *Humanity and the learner's isolation:* Many distance educators attempt to use advanced technologies and don't realize that technology and social context are equally important.
- *Quality and authenticity in the learner's experience:* Adult learners usually have strong self-direction in learning;

therefore, some learning takes place beyond the instructor's scope in the online learning environment.

- *Physical distance vs. conventional classrooms:* The learner's autonomy meets the expectation of the constructivist approach; however, the instructor's role becomes that of a facilitator.
- *Adult learning emphasizes learner-centered instruction:* Online classrooms rely on discussion boards and team projects to connect the students; therefore, collaborative learning is in conflict with individual differences. Social constructivism occurs when experienced students help inexperienced learners by collaborative learning.

Online technologies are reducing the barriers of distance education that result from interactive or communication problems. Instructional designers must meet the challenge to create online environments that suit the adult learner. Constructivist principles provide ideas to help instructors create learner-centered and collaborative systems that support critical reflection and experiential processes (Jonassen, Davidson, Collins, Campbell, & Haag, 1995).

### Case-based Learning Proven Practices

In academia there are two primary classifications of case studies as defined by the American Heritage Dictionary: 1) A detailed analysis of a person or group, especially as a model of medical, psychiatric, psychological, or social phenomena, and 2) A detailed intensive study of a unit, such as a corporation or a corporate division, that stresses factors contributing to its success or failure.

Case studies are written to be analyzed or to demonstrate specific business situations; therefore, cases can be part of the curriculum for undergraduate and graduate degrees. The focus of business cases offers a large range of topics within corporations from Fortune 500 to startup companies. Some of the areas that have been the subject of case study and analysis include ethics, leadership, management, finance, corporate social responsibility, operations, organizational learning, reorganization, culture and

change, decision making, marketing, human resources, mergers and acquisitions, strategies for growth, and communication. Business case studies play an important role for adult learners in developing their analytical skills and problem solving applications.

Based on learning theories and andragogy parameters, case study and case analysis are one of the most effective ways for the adult learner to relate to course work. The student identifies with the business situations presented in the cases, as many are employed in companies that experience similar problems. The mature student, or students who have work experience, are motivated and engaged when the subject matter relates to real life. Many students are quick to share their experiences to help explain the problem to other students. In the online environment, this shared experience in group discussions can be the beginning and ongoing foundation for class interaction. The primary motivation of adult learners to engage in case studies can be to apply a solution or lesson to their workplace. The course work has now become relevant to students by being directly applicable.

Case studies come in many sizes, shapes, and forms in that some are short stories with a few questions at the end to stimulate a discussion, while some may be up to ten pages in length with charts, graphs, and financials.

Short case studies are good options for weekly online discussion questions. This type of question and answer format creates an interaction among the students and teaches single lessons that can be viewed from different perspectives on the same topic. Students can be asked to challenge each other with their interpretations of cause and effect.

Larger case studies can be used in case analysis and can support lessons in strategic management problem solving. Case studies are useful as major and minor assignments and can be completed by students as individuals or in teams. An analysis can be reported in many formats, using a variety of processes, and yielding countless outcomes. But the core of a case analysis has four primary functions:

1. The Problem
2. Analyses

3. Alternatives
4. Recommendations

A case study analysis assignment must stand on its own, which requires an introduction of the corporate case and a summary regarding follow-up or evaluation. The students have an opportunity to improve writing skills by succinctly describing the case in the introduction without restating the entire case. To assist students the following guideline serves as a basic outline and content description for a stand alone case analysis:

- *The Introduction:* Provides background, historical, and current information that sets the framework for the problem being analyzed. The author/student needs to define his/her perspective, i.e., department head, officer, consultant, etc.
- *The Problem:* Identifies one major problem, as many corporations are rife with problems. The student must discern the difference between symptoms and problems.
- *The Analyses:* Uses the analytical tool that best addresses the problem and will offer potential solutions. Available tools include Porter's five-forces model of industry competition analysis, value-chain analysis, and financial ratio analysis.
- *The Alternatives:* (Sometimes referred to as alternative solutions.) Identifies a minimum of three alternatives and no more than four potential solutions, which give the writer the opportunity to put forth options from different categories of solutions; e.g., cost effective/short term, long term for the greater good, external market impact, internal culture/moral impact, the company's vision, mission, and objectives, and stakeholder relations.
- *The Recommendations:* Outlines the course of action recommended and is often a blend of two alternatives. The recommendations must be supported by the analysis and should describe the course of action and how best to implement the solution.

- *The Conclusion:* Summarizes the recommendations and allows for tying together any loose ends and establishing maintenance or evaluation of the implementation.

Case-based learning stimulates adult online learners by allowing them to use their creativity in problem-solving current issues that resonate with them. Including collaborative structures in the online course design enables the distance learners to develop community similar to the classroom environment.

### Student Application

Case study methodology can be used in all business courses, online and in the classroom, for undergraduate and graduate study. It can be organized in teams or by individuals. The adult distance learner requires an incentive for engagement. Case studies are written about current companies facing current issues which connect the employed student to the course. By using case studies as weekly discussions, individual analysis, and/or team assignments, mature students can be drawn into the course work by fellow students through relevant issues that are most likely to impact their workplace and career.

Adult learning experts believe that the emphasis should be on learner-centered instruction (Knowles et al., 1998), while social constructivists McDonald and Gibson (1998) contend that knowledge is constructed by social interaction, i.e., team and group assignments, which create collaborative learning. Ruey's (2010) study confirmed the following benefits for online adult learners in a constructivist-based course:

- Acquiring new concepts from course materials
- Obtaining different thoughts from reading peer postings, e.g., viewpoints and experiences
- Increasing confidence in dealing with routine work tasks
- Applying learned concepts to real-life practices
- Becoming more responsible, self-directed learners

The online environment creates a particular challenge for adult learners, as it permits a student to become isolated. Chen (1997) found that adult distance learners are highly autonomous, self-directed, motivated, and individually different. However, the use of case studies for class discussion and team assignments online can accomplish positive learning experiences, such as the development of critical thinking, and social and interpersonal skills by offering a collaborative environment. Huang (2002) characterized online discussion groups as discussion oriented, authentic, project based, inquiry focused, and collaborative, thereby creating a better learning environment.

### Instructor as Facilitator

The design of case-based learning for adult learners demands a paradigm shift for the instructor. The “instructor becomes a facilitator” concept (Bellamy, 1999; Gamoran, Secada, & Marrett, 1998; Palincsar, 1998; Rhodes & Hmelo-Silver, 2004; Ruey, 2010) is the focus of many theorists and stimulates the facilitator to take on a mentoring role guiding learners’ self-directed, high-quality learning skills. Salmon (2002) developed a five-stage model to facilitate online teaching and learning that includes varied facilitation skills and activities. The five stages are:

1. Access and motivation—setting up the system, welcoming, and encouraging
2. Socialization—establishing cultural, social learning environments
3. Information exchange—facilitating, supporting use of course materials
4. Knowledge construction—conferencing, moderating process
5. Development stages—helping achieve personal goals

Huang (2002), from a social constructivist perspective, outlines six instructional principles for consideration:

1. Interactive learning—interacting with the instructor and peers rather than engaging in isolated learning
2. Collaborative learning—engaging in collaborative knowledge construction, social negotiation, and reflection
3. Facilitating learning—providing a safe, positive learning environment for sharing ideas and thoughts
4. Authentic learning—connecting learning content to real-life experience
5. Student-centered learning—emphasizing self-directed, experiential learning
6. High-quality learning—stressing critical thinking skills and learners’ reflection on their own lives

As a facilitator and mentor, the instructor must be sensitive to the diverse learning needs of the adult, online learner and anticipate those needs. Another important responsibility is to monitor the learner’s engagement in critical reflection and higher-order thinking. This responsibility is readily resolved with timely and relevant feedback in online postings and assignment critiques. Ruey (2010) effectively summarizes the facilitator’s mentoring role as being pivotal in the process when he/she helps learners articulate their learning desires and objectives and assists individual learners to achieve learning goals in a reflective method.

### Challenges of Case Approaches in Online Instruction

Kearsley (1998) offered a word of caution for distance educators when he said, “Educators fail to understand that distance education is really about creating a different kind of structure for learning and teaching, not the use of technology” (p. 49). Lee, et al. (2009) alerted the instructor to be aware that the technology can disrupt students if they have to manage tasks and tool functions while learning the course material. When case-based learning is adopted for online course work, the instructor must be knowledgeable about how the technology will enhance or detract from the students’ learning. Harvard Business School and the University of Virginia’s Darden Graduate School of Business Administration,

two top-ranked MBA programs, were the basis of a study on successful case discussion leadership by Smith (2010). Smith (2010) outlined the characteristics of successful leadership discussion and included the following challenges for instructors:

- Over-focus on the case facts, computations, and details, preventing the instructor from ensuring effective discussion.
- Over-focus and knowledge of the case calculations leading to strict coverage and adherence to the material rather than allowing the class to participate freely.
- Diminished student motivation.
- Students who want a simple takeaway or direct answers, which minimizes self-discovery in group discussions.
- Instructors' inability to give up control and accept the unknown outcomes and direction of the case discussion.
- Effectively balancing the quantity of material covered with the optimal quality, depth, and retention of the material by the students.
- Cases selected that are poorly written or don't fit the focus of the course work (Smith, 2010).

Lee, et al. (2009) reviewed case-based learning practices for online MBA programs and cautioned instructors that technology can burden students with managing tasks and tool functions while learning the course material. It is often recommended that weekly discussions be monitored closely for full participation and that instructor responses stimulate students.

## Active Learning and “Live” Cases

An exciting expansion on experiential learning is active learning. Hamer (2000) and Camarero, Rodriguez, & San Jose (2010) describe active learning as seeking to engage student involvement with the course concepts by encouraging them to apply theory to real-life situations. Active learning creates a paradigm where instructors become designers of the learning environment and where the students are active in their own learning process.

This concept parallels case-based learning where the instructor becomes the facilitator.

Camarero, et al. (2010) from the University of Valladolid studied the learning effectiveness of live cases in a classroom setting. Their experiment involved students working with a “live” company on a real marketing problem. Live case development is rather difficult in that the instructor must preplan the activity and host by carefully outlining the concepts and skills to be learned from the case. Camarero, et al. (2010) discovered at the time of company assignment that students had a preference for companies they were already familiar with, thereby reducing the instructor's control over the concept and skills outcome. This type of live case study and active learning seems difficult enough in a classroom environment. Questions remain as to whether it might transfer to distance learning without significant research, design, and development.

A similar live case experiment was employed in the MBA-level course People and Systems in Organizations in the classroom. The difference being that the students, working in a team, opted for a case problem presented by one of the student's employers. In this particular class, Wells Fargo and T-Mobile were the companies that became the focus of the studies. The engagement and enthusiasm of the students was phenomenal, which confirms constructivist theory and experiential learning andragogy for adult learners. Transferring the live case study from classroom to online will require further research and exploration, but this method could have significant merit. It may not be an option for the undergraduate, but graduate-level studies would embrace the applicability of the live case study. The following objectives are likely outcomes of such an application:

- Students put theoretical concepts into practice
- Improve understanding of relevance and applicability of theoretical concepts
- Increase critical thinking
- Improve strategic analysis and problem-solving skills
- Develop leadership and team building skills
- Develop managerial skills

Another benefit of such an approach is the learning process in creating the case features that lead to the identification of the problem, which results in a solution for at least one student from the team to submit to the employer. An entire course could be structured with this type of case study, which would allow each team member to develop and deliver the company case to the team. The development of the case could serve as an individual assignment, and the live case study results could be packaged as a proposal for the case company by the employed student as another individual assignment.

Ruey's (2010) study indicated that learners suffered from lack of motivation that may have been stimulated by lack of critical performance feedback in the online environment. Huang (2002) discussed the importance of educators recognizing that technology and social context are equally important for distance learning. The online learning environment allows for isolation of the adult learner; therefore, it becomes imperative for the instructor to develop some humanity in the delivery of the course. Distance educators attempt to employ state-of-the-art technologies, such as web, video, and teleconferencing, but at some point the use of technology becomes the learning process and not the course material.

Conference calls can be difficult for the same reason that students take online courses—scheduling. Although it can be a significant burden on the instructor, perhaps at least one phone call to each online student at the beginning of the session would put a voice with the name. Another technique to enhance social relationships online is the posting of individual pictures in the student and faculty introductions. The weekly discussions have a similarity to blogging or the social network systems that are so popular today. The development of a pseudo-social network environment for online learners is worth further investigation.

## Conclusion

Case-based learning for undergraduate and graduate adult learners is a proven practice that constructivist and experiential educators can successfully use to teach students the princi-

ples and strategies of business. The adult learner prefers learning processes that have a practical rather than an academic purpose. Through the constructivist, problem-solving, case-based, experiential, and active learning approaches that have been demonstrated in this chapter, mature students can apply their learning to their real lives.

The greater challenge comes from transferring the classroom dynamics to the online environment and creating the paradigm shift from instructor to facilitator. Lee, et al. (2009) stated, "A key educational challenge of online courses and programs is how to develop pedagogically effective technologically mediated environments that enhance the quality of education" (p. 188). Designing an online environment that parallels social networking sites to attract and motivate the adult learner with relevant company cases, including live case development, may be the solution for enhancing, enrolling, and retaining distance learners.

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