

Learning Through Case Studies in Higher Education

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The use of case studies in the classroom offers an experiential and active approach to learning. Case studies increase student engagement by providing a foundation for applying theoretical concepts to real world situations. Students may achieve higher learning potential through reflection, discussion, and possible debate of various outcomes and solutions within a case study. Experiential learning through case studies allows students to take an active role in learning rather than a passive role. This paper will explain how case studies are effective in achieving learning goals in the classroom. Additionally, a detailed outline of a model that can be used to analyze a case in any discipline will be presented.

Keywords: experiential learning, case studies, engagement, active learning

INTRODUCTION

An increasing concern exists in education as to how students are best able to acquire, create, apply, and share knowledge (Robertson, 2018). A shift is occurring from a traditional classroom to a more interactive course design (Cho et al., 2021). Active learning strategies may be used in higher education to increase student engagement and meet the demand for higher levels of interaction.

Active learning strategies provide a student-centered learning approach where the learner is directly involved in the process and critically thinks through their actions (Hernández-de-Menéndez et al., 2019). According to Huda et al. (2016), active learning occurs when students actively engage in understanding concepts through various activities. Although frequent calls for more student-active learning exist, studies show that teaching remains largely traditional and teacher-centered (Børte et al., 2023).

Case study analysis in the classroom can be considered a form of active learning. According to Meyers and Jones (1993), case studies are considered a teaching tool that allows students to apply what they are learning. Students may work together on a case analysis, consider alternatives, and form well thought out and logical solutions to solve the case. Therefore, the use of cases in the classroom may increase learning.

PURPOSE

A common challenge in higher education is that lecture-based teaching may encourage passive learning and is not in line with current needs (Roberts, 2019). Therefore, the field of higher education has been facing challenges to shift from traditional instruction practices to a more student-centered direction (Hartikainen et al., 2019). According to Qureshi et al. (2023), active and collaborate learning should be used in higher education as it has an impact on academic development. This paper provides an outline of

how to use case studies as an active learning strategy for classroom implementation. The use of case studies may create a more in-depth evaluation of ideas, which may lead to increased student learning.

LITERATURE REVIEW

Theoretical Foundation

The constructivist theory has created changes to teaching methods in higher education. The student centered “constructivist” approach is based on active learning (O’Connor, 2022). Hein (1991) indicated that the constructivist learning theory revolves around the concept that learners construct knowledge and meaning for themselves. Constructivism allows students to use their own prior experiences and knowledge to enhance learning. Learners are able to create meaning that applies to content, and new learning builds on prior knowledge (Cooperstein & Kocevar-Weidinger, 2004).

According to Sasan and Rabillas (2022), the constructivist learning theory continues to progress as one of the most fundamental teaching theories in education. The implications of constructivism on how instructors teach and learn to teach are vast (Bada & Olusegun, 2015). Active learning activities lead to construction of meaning in a constructivist classroom (Cooperstein & Kocevar-Weidinger, 2004). According to Dangel et al. (2004), active learning creates purposeful interactions and engagement in the activity. Therefore, increased knowledge about active learning strategies is purposeful.

Benefits of Active Learning

Active learning is becoming common practice in higher education. According to Hernández-de-Menéndez et al. (2019), active learning allows the learner to be directly involved in the learning process. Active learning strategies may involve experiential and learner centered activities (Howell, 2021). The value of active learning methods must be understood by higher education institutions and promoted in their practices (Ribeiro-Silva et al., 2022).

Prince (2004) indicated that a broad support for the core elements of active, cooperative, collaborative, and problem-based learning exists. Students who learn through an active learning approach are better prepared to handle problems upon entering the work force (Hernández-de-Menéndez et al., 2019). According to Bredow et al. (2021), active learning strategies are superior to lecture based learning for creating a range of academic and satisfaction outcomes. Overall, students may enjoy taking a leading role in their learning.

Case Studies in the Classroom

Case based learning is an instructional methodology that has gained popularity across many disciplines. McLean (2016) suggested that integrating cases into the learning process may result in a deeper learning. The case study method allows students to solve real world problems within a classroom environment (Dowd & Davidhizar, 1999). Integrating cases studies into the learning environment may create a problem-solving structure of learning rather than the teacher centered lecture method.

Many benefits exist as far as using case studies in the classroom. The use of case studies as a teaching method engages students and develops critical thinking skills (Herreid & Schiller, 2013). Additionally, students are able to link course theory to practice with case-based learning (Lee, 2007). According to Herreid (2005), students demonstrated improved learning when case studies were used.

CASE STUDY MODEL

Instructors may realize increased benefits when using case studies for learning in the classroom. According to Bruner et al. (1999), a clear outline is necessary for effective learning when using case studies in the classroom. The case study model in Table 1 below is an example of an outline that can be used in the classroom.

TABLE 1
CASE STUDY MODEL

Case Study Steps	Description
Summary	Provide an overview of the case.
Problem Identification	Identify the problem within the case.
Identify Decision Criteria with Weights	Identify the criteria that will be used to create the recommendations. Assign weights to the criteria.
Alternative Solutions	Identify alternative solutions. Consider what might be possible under different circumstances. Evaluate each alternative solution. Rate alternatives against the criteria and multiply by weightings. Complete the decision matrix.
Recommend Solution with Justification	Identify the best course of action that should be taken to resolve the issue. The solution should be chosen based on the criteria that was identified.

FINDINGS

A review of literature suggests that students are highly motivated to learn through active learning techniques. An active learning approach promotes a deeper and more meaningful learning experience (Mshayisa, 2020). Owens et al. (2020) indicated that active learning may also enhance students' attitudes, interest, creativity, and motivation.

Motivation is a key factor in learning (Borah, 2021). Instructors must identify educational techniques that may increase motivation within students (López-Fernández et al., 2019). According to Owens et al. (2020), studies show that active learning may enhance student attitudes and motivation. Motivation may be increased due to the collaborative setup and greater ownership in the active learning model (Mikalayeva, 2016).

Students are stakeholders in their education, which makes their perceptions of the learning process important (Elaine Gioiosa & Kinkela, 2019). According to Mshayisa (2020), a call exists in higher education to incorporate active learning experiences that allow students to be more engaged so that they are more interested in learning course material. Therefore, integration of case studies into the classroom may increase student learning satisfaction.

CONCLUSION

Curriculum implementation should be centered around motivating the learner to learn (Borah, 2021). Huda et al. (2016) indicated that students have positive attitudes toward active learning strategies and more negative attitudes for traditional learning strategies. Therefore, instructors should implement more active learning strategies in the classroom.

A growing demand exists for skilled facilitation of active learning strategies (Pedler & Abbott, 2008). Implementing case studies is a flexible approach to active learning that can be used in any discipline and easily integrated into the classroom. Case studies are an effective active learning strategy to create learner empowerment, participation and decision making.

REFERENCES

- Bada, S.O., & Olusegun, S. (2015). Constructivism learning theory: A paradigm for teaching and learning. *Journal of Research & Method in Education*, 5(6), 66–70.
- Borah, M. (2021). Motivation in learning. *Journal of Critical Reviews*, 8(2), 550–552.
- Børte, K., Nesje, K., & Lillejord, S. (2023). Barriers to student active learning in higher education. *Teaching in Higher Education*, 28(3), 597–615.
- Bredow, C.A., Roehling, P.V., Knorp, A.J., & Sweet, A.M. (2021). To flip or not to flip? A meta-analysis of the efficacy of flipped learning in higher education. *Review of Educational Research*, 91(6), 878–918.
- Bruner, R.F., Gup, B.E., Nunnally, B.H., & Pettit, L.C. (1999). Teaching with cases to graduate and undergraduate students. *Financial Practice and Education*, 9, 138–146.
- Cho, H.J., Zhao, K., Lee, C.R., Runshe, D., & Krousgrill, C. (2021). Active learning through flipped classroom in mechanical engineering: Improving students' perception of learning and performance. *International Journal of STEM Education*, 8, 1–13.
- Cooperstein, S.E., & Kocevar-Weidinger, E. (2004). Beyond active learning: A constructivist approach to learning. *Reference Services Review*, 32(2), 141–148.
- Dangel, J.R., Guyton, E., & McIntyre, C.B. (2004). Constructivist pedagogy in primary classrooms: Learning from teachers and their classrooms. *Journal of Early Childhood Teacher Education*, 24(4), 237–245.
- Dowd, S.B., & Davidhizar, R. (1999). Using case studies to teach clinical problem-solving. *Nurse Educator*, 24(5), 42–46.
- Elaine Gioiosa, M., & Kinkela, K. (2019). Active learning in accounting classes with technology and communication skills: A two-semester study of student perceptions. *Journal of Education for Business*, 94(8), 561–568.
- Hartikainen, S., Rintala, H., Pylväs, L., & Nokelainen, P. (2019). The concept of active learning and the measurement of learning outcomes: A review of research in engineering higher education. *Education Sciences*, 9(4), 276.
- Hein, G.E. (1991). Constructivist learning theory. *Exploratorium*. Retrieved from <https://www.exploratorium.edu/education/ifi/constructivist-learning>
- Hernández-de-Menéndez, M., Vallejo Guevara, A., Tudón Martínez, J.C., Hernández Alcántara, D., & Morales-Menendez, R. (2019). Active learning in engineering education. A review of fundamentals, best practices and experiences. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 13, 909–922.
- Herreid, C.F. (2005). *Using Case Studies to Teach Science*. Education: Classroom Methodology. American Institute of Biological Sciences.
- Herreid, C.F., & Schiller, N.A. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching*, 42(5), 62–66.

- Howell, R.A. (2021). Engaging students in education for sustainable development: The benefits of active learning, reflective practices and flipped classroom pedagogies. *Journal of Cleaner Production*, 325, 129318.
- Huda, S.U., Ali, T.S., Nanji, K., & Cassum, S. (2016). Perceptions of undergraduate nursing students regarding active learning strategies, and benefits of active learning. *International Journal of Nursing Education*, 8(4), 193–199.
- Lee, K. (2007). Online collaborative case study learning. *Journal of College Reading and Learning*, 37(2), 82–100.
- López-Fernández, D., Ezquerro, J.M., Rodríguez, J., Porter, J., & Lapuerta, V. (2019). Motivational impact of active learning methods in aerospace engineering students. *Acta Astronautica*, 165, 344–354.
- McLean, S.F. (2016). Case-based learning and its application in medical and health-care fields: A review of worldwide literature. *Journal of Medical Education and Curricular Development*, 3, JMCD-S20377.
- Meyers, C., & Jones, T.B. (1993). *Promoting Active Learning. Strategies for the College Classroom*. Jossey-Bass, Inc. 350 Sansome Street, San Francisco, CA 94104.
- Mikalayeva, L. (2016). Motivation, ownership, and the role of the instructor in active learning. *International Studies Perspectives*, 17(2), 214–229.
- Mshayisa, V.V. (2020). Students' perceptions of Plickers and crossword puzzles in undergraduate studies. *Journal of Food Science Education*, 19(2), 49–58.
- O'Connor, K. (2022). Constructivism, curriculum and the knowledge question: Tensions and challenges for higher education. *Studies in Higher Education*, 47(2), 412–422.
- Owens, D.C., Sadler, T.D., Barlow, A.T., & Smith-Walters, C. (2020). Student motivation from and resistance to active learning rooted in essential science practices. *Research in Science Education*, 50, 253–277.
- Pedler, M., & Abbott, C. (2008). Am I doing it right? Facilitating action learning for service improvement. *Leadership in Health Services*, 21(3), 185–199.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223–231.
- Qureshi, M.A., Khaskheli, A., Qureshi, J.A., Raza, S.A., & Yousufi, S.Q. (2023). Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments*, 31(4), 2371–2391.
- Ribeiro-Silva, E., Amorim, C., Aparicio-Herguedas, J.L., & Batista, P. (2022). Trends of active learning in higher education and students' well-being: A literature review. *Frontiers in Psychology*, 13, 844236
- Roberts, D. (2019). Higher education lectures: From passive to active learning via imagery? *Active Learning in Higher Education*, 20(1), 63–77.
- Robertson, L. (2018). Toward an epistemology of active learning in higher education and its promise. In *Active learning strategies in higher education: Teaching for leadership, innovation, and creativity* (pp. 17–44). Emerald Publishing Limited.
- Sasan, J.M., & Rabillas, A.R. (2022). Enhancing English proficiency for Filipinos through a multimedia approach based on constructivist learning theory: A review. *Science and Education*, 3(8), 45–58.