

# Case Teaching Approach under Test: Delineating the Influence of Student Engagement Dimensions on Cognitive and Affective Learning

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**Abstract.** The purpose of this study was to examine the influence of student engagement dimensions on cognitive and affective learning by varying case teaching approaches (teacher-led and student-led) and by observation. Our study was longitudinal in nature; we surveyed students enrolled in a postgraduate leadership course twice during the semester using a Likert scale questionnaire. The hypotheses were tested by applying dependent t-tests, bivariate correlation and linear regression analyses using SPSS. Statistical tests confirmed the fundamental role of student engagement under both case teaching approaches. Significantly, our study found a higher influence of student engagement dimensions on cognitive and affective learning under the student-led approach. Although the relationships of student engagement dimensions with affective learning under the teacher-led approach were less positive, they were all significant, thus suggesting that the correct mix of student-led and teacher-led approaches should be employed. Very few studies have investigated student engagement in the affective domain of learning. Our study adds to this limited stock of literature.

**Keywords:** case teaching, student engagement, cognitive-learning, affective-learning.

## 1. Introduction

The case method as a teaching and learning tool has been employed for over a century in disciplines such as business, law, economics, and management. The method provides students with the possibility to grow into proactive decision makers in dynamic environments. Theorists suggest that both students and teachers need to develop their voice and be empowered to reflect and question (Wink 2000) and these abilities are made possible through case teaching and learning. Rebeiz (2018) credited the case methodology as a powerful learning tool

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that triggers the transformational power of the learner. However, there have been criticisms of the method as well, as recent corporate scandals related to the shortcomings of CEOs and chairpersons, mainly Harvard Business School (HBS) graduates, who taught using cases that provided limited, amoral managerial perspectives on business (Bridgman, Cummings & McLaughlin 2016). Students make organisational decisions in an emotional vacuum that lacks the types of emotion in the situation depicted by the case (Frederick 2013). Other scholars (Ginsberg & Morecroft 1997; Foster & Carboni 2009) claim that the traditional case method (TCM) inadequately prepares modern managers to confront the dynamic (often dysfunctional) complexity they encounter in real life. Slavich and Zimbardo (2012) stressed the importance of the thorough case preparation is required by students and faculty for the method to work.

Traditionally, the TCM was teacher-led (TL), based on the Socratic dialogue in which the teacher leads the discussion by eliciting issues or requesting students to do so. The teacher controls the discussion by confronting students with opposing views and asking them to validate their perspectives with facts from the case or information derived by analysing the case (Wood & Anderson 2001). Case teaching methods have developed solutions to the limitations of the TCM, such as a lack of participation due to unpreparedness. One method that gained popularity was McAleer Interactive Case Analysis (MICA). MICA engages students with the case and eliminates the preparation challenges experienced with the TCM. Regardless of the approach used to teach cases, “student engagement” remains the paramount departure from traditional lecture-based classes (Golich 2010; Krain 2010; Lantis, Kille, & Krain 2010; Mesny 2013). Reeve (2012) found that students take self-initiated action in terms of their behavioural, emotional, cognitive and agentic engagement to meet their psychological needs.

Klikauer (2015) noted that learners engaged with the cases did not necessarily learn the specific requirements of the course due to the disorganised fashion in which cases were administered. The method has been criticised for not preparing learners to translate what they have learned through the cases in their respective organisations (Argyris 1980), for instance, by adopting the required leadership behaviours (Foster & Canoni 2009). Research on the relationship between “student engagement” and learning outcomes has proliferated (Desiraju & Gopinath 2001; Krain 2010); however, most of previous studies used direct measures (grades, scores) neglecting the fundamental elements, including the significant role of “student engagement” in stimulating both the affective and cognitive responses of the learner (Kohler, Landis & Cortina 2017). Kohler *et al.* (2017) emphasised that studies on the learning process itself were overlooked and emphasised that the study of Kraiger, Ford and Salas (1993), which distinguished between cognitive learning, affective learning and skill-based learning, has rarely been utilised. The current study fills this gap by attempting to understand the influence of “student engagement” dimensions on cognitive and affective learning processes rather than outcomes. Students engaged in experiential

learning participate directly in classroom case activities by critically analysing and reflecting on those cases through class discussions that draw on learners' own experiences. Skill-based training outcomes were omitted since they do not apply to the learners under consideration and are beyond the scope of this paper.

Our study contributes to the literature by enabling future leaders to understand their own learning while they coach colleagues, read business magazines and contribute to reflection groups (Cortese 2005). This understanding can develop potential leaders' pedagogical preparation and performance beyond the course, that is, in real organisational settings (Cole & Snider 2019). Yukl, Gordon and Taber (2002) found that managers trained to acknowledge their own "cognitive learning" and "affective learning" skills are the most effective as they can address contemporary organisational challenges successfully and achieve a proper balance between the task and people aspects of the job. This study endeavours to determine the extent to which student engagement dimensions influence the "affective" and "cognitive" learning domains of students taking a postgraduate course in leadership under the teacher-led and student-led approaches to case teaching. The case teaching approach provides a holistic and unbiased review, especially during the exploratory phase of a student learning investigation, and emphasises student engagement.

## 2. Case Studies

"Cases portray high-stakes battles in which individuals face difficult and consequential business decisions... Proper judgment matters, since mistaken decisions in a warlike environment can have disastrous outcomes" (Anteby 2013, p. 82). Case discussions enable participants to learn problem-solving techniques and are rooted in law schools (Copeland 1954). In 1920, Harvard Business School adopted this method to teach business cases (Christensen & Hansen 1987; Merseth 1991), and the orthodox conceptual approach of the method contributed to its ready acceptance (Schulman 1992). In his justification, Wraga (2008) described the case method as providing *acquaintance* rather than the knowledge *about* that is needed in management education. The goal of using the case method is to develop the critical thinking skills of students by using high-order questioning (Wood & Anderson 2001) and to engage them in doing things and thinking about the things they do (Slavich & Zimbardo 2012). As a teaching method, case studies facilitate empirical inquiry by investigating the contemporary phenomenon of student engagement within its real-life context (cognition and affection) (Yin 1984).

## 2.1. Case Teaching Approaches

Under the TCM, the role played by students is as important as that of instructors for the method to be successful. Instructors need to be skilful in asking questions effectively, asking the right questions at the right time and guiding the discussion towards achieving learning outcomes while developing students' analytical skills (Christensen & Hansen 1987). Instructors endeavour to create a collaborative context for in-class discussions, maintain an equal level of individual student participation, encourage students' opinions and uphold an emotional climate conducive to learning while acknowledging the significance of peer learning. While the collaboration of teacher-student still has a focal function in modern teaching, the importance peer-to-peer interaction has heightened in learning environments that employ student-centred pedagogies. Undoubtedly, this drew scholarly interest towards research requiring the determination of the specific connotations as to how learning is created in student-centred ecosystems (Cohen 1994; Kumpulainen & Kaartinen 1999).

Conversely, there are several expectations of students: they are expected to i) read, analyse and identify key issues from the cases before each session, ii) participate in the class discussion by speaking up, iii) listen actively to their peers and iv) contribute positively to the live class discussion (Desiraju & Gopinath 2001).

Klikauer (2015) showed that students did not prepare before class, a situation exacerbated by the advent of social media (Hollis & Was 2016). Students intervene frequently without adding constructively to the discussion, preventing the expected learning from occurring (Desiraju & Gopinath 2001). Faculty modified the method to increase student participation by dividing the class into two groups and asking one group to present while the other critiques the presentation (deWitt 2010). Some have utilised cold calling to encourage reticent students (Charan 1976), while others have tried 'walking cases' (Cruikshank 1987) and technology-enhanced cases (Schrader et al. 2003; Shin, Brush, & Saye 2019). McAleer developed a series of steps that gained popularity since the essence of the method is to embolden learners to participate.

McAleer Interactive Case Analysis (MICA) empowers learners to take ownership of the preparation and discussion of the case. Adapted MICA versions of courses were used at both undergraduate and postgraduate levels by Siciliano and McAleer (1997). For instance, they split the method into three main constituents: (a) student teams administer the discussion, (b) class members discuss action steps and (c) the professor evaluates the students on the basis of an established MICA scoring criteria. MICA was tailored for use in strategic management (Siciliano & McAleer 1997) and retail management (Desiraju & Gopinath 2001).