Peer evaluations within experiential pedagogy: Fairness, objectivity, retaliation safeguarding, constructive feedback, and experiential learning as part of peer assessment

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ARTICLE INFO

ABSTRACT

This paper describes the analysis of peer assessment processes in experiential learning courses at a Midwestern public university. Factor analysis was used in the creation of constructs measuring perceptions of fairness, objectivity, retaliation safeguarding, and constructive feedback. Constructs were based on student fears that peer assessment is unfair, peers measure based on emotions (objectivity), giving a bad score will hurt me in later courses (retaliation safeguarding), and feedback is not developmental. As well, it was determined whether there was a belief, by end users, that peer assessment is a critical component of experiential learning. The authors surveyed 477 students within semester courses practicing experiential learning pedagogies and developed constructs for fairness ($\alpha = 0.785$), objectivity ($\alpha = 0.774$), retaliation safeguarding ($\alpha = 0.862$), constructive feedback ($\alpha = 0.692$) and experiential learning ($\alpha = 0.743$). No within-factor multicollinearity was found in any construct.

1. Introduction

Peer feedback is a critical component of experiential learning and is directly associated with problem based, team based, and classroom as organization based instructional methods. Peer assessment or evaluation has been afforded serious attention in several learning environments in higher education, especially with regard to classrooms that utilize experiential learning and active learning as the primary pedagogical methods (Carvalho, 2013). Topping, Smith, Swanson, and Elliott (2000) defines peer assessment as an "arrangement in which individuals consider the amount, level, value, worth, quality, or success of the products or outcomes of learning of peers of similar status" (p. 150). Peer assessment is facilitated with each individual team member rating their peer's performance, especially when learning teams are employed in the classroom (Carvalho, 2013). The scope and frequency of the peer feedback depends on the specific learning model being utilized by the instructor.

There are several desired outcomes and goals associated with the peer assessment process. McGarr and Clifford (2012) assert that the goal of peer assessment is to "provide opportunities for students to assess each other's work and contribute to a community of practice where critically supportive dialogue leads to deeper student learning." Additional researchers such as Ohland et al. (2012) state that peer assessment offers an opportunity for students to learn about expectations, accountability, and the true purpose of

giving and receiving developmental feedback. Further, while the goals of peer assessment are diverse, instructors using experiential learning methods may utilize peer assessment as the reflective portion of the pedagogy and to develop team skills. These assessments not only increase accountability of teammates, but also compel engagement and effort associated with team activities (Ohland et al., 2012). Peer assessment requires self and peer contribution to instructional requirements. As such, it requires reflection of personal and peer contribution and weighting of responsibilities in a scoring and feedback format. In addition, peer assessment creates solutions for team member disengagement, increases the degree to which team members' grades reflect their actual contribution to outcomes, and urges students to be responsible for demonstration of course content (Ohland et al., 2012).

1.1. Need for solving the problem

While literature and instructional experiences find peer assessment to be a critical component of experiential learning pedagogy (Michaelsen, Sweet, & Parmalee, 2009), there is, at present, no analysis of peer assessment components, or whether they are believed to impact the scoring and feedback associated with peer assessment within classroom settings. To determine how students perceive which components are critical and directly associated with experiential learning, students were asked whether peer assessment is relevant to this pedagogy.

The authors discussed peer assessment with ten faculty at two Midwestern universities totaling more than 120 years utilizing experiential methods including problem-based, team-based and classroom-as-organization pedagogies. Ten elements were discussed with four critical components found comprising an effective peer assessment process. All ten experiential faculty agreed that students must feel the peer assessment is fair, objective, and contains relevant constructive feedback. Eight concurred that peer assessment should control for potential future retaliation (retaliation safeguarding).

While research has documented several benefits associated with the peer assessment and evaluation process in teaching and learning, resistance and questions associated with its effectiveness exist. According to Carvalho (2013), one significant concern is associated with a student's capacity to fairly and objectively assess his or her teammates' performance. These discrepancies occur either for a lack of student expertise in assessment or for a variety of subjective predispositions including "friendship marking" in which individual students provide higher grades to friends, or "decibel marking" in which the most prevailing team members receive the highest grades (Carvalho, 2013). This type of experience in particular calls into question the objectivity, fairness, and the appropriateness of grade weight of the peer assessment and evaluation process. For this reason the authors have chosen to analyze both "Fair" and "Objectivity" as separate constructs.

Another major concern with the peer assessment is related to the consequences stemming from direct social contact among teammates (Carvalho, 2013). For example, Vu and Dall'Alba (2007) note that "peer assessment may cause friction among peers, including feelings of hurt or betrayal resulting from comments or unexpected marks." When one considers the frequency of team-oriented activities included in an experiential learning environment, and the fact that in many business school's students will most likely have teammates in many future courses, the idea of social protection or retaliation safeguarding is called into question. During the peer assessment and evaluation process, students may decline to provide feedback or a corresponding grade that is representative of their teammates' true performance in the course for fear of retaliation (Carvalho, 2013).

Ideally, students and instructors require a peer assessment instrument that not only minimizes resistance associated with the process, but also has the capacity to add value through feedback to the involved individuals. According to Ohland et al. (2012), "if a student peer evaluation instrument is well-designed, any feedback that students receive from it is likely to have more value for student learning." Ohland et al. (2012) continue by asserting that peer assessment offers an opportunity for students to learn about expectations, accountability, and the true purpose of giving and receiving developmental feedback.

1.2. Statement of the problem

The authors believe that student perceptions of peer evaluation process and the instruments being utilized positively or negatively impact their experiential learning courses. Measuring the extent and strength of student perceptions is not possible at present due to lack of any scale or instrument on the subject of peer assessment. Therefore, the central problem discussed within this research study is the creation, validity and reliability of four constructs that can eventually be used to ascertain how students perceive peer assessment within their courses taught using an experiential learning pedagogy. The instrument will include the construct for experiential learning pedagogy as a control as it applies to the pedagogy that employs peer assessment. This new instrument will measure five concepts: objectivity, fairness, retaliation safeguarding, constructive feedback and experiential learning.

1.3. Research questions

This study attempts to answer the following research questions:
QUESTION 1: Does the instrument measure five separate parsimonious constructs? (Objectivity", Fairness", Experiential Learning", "Constructive Feedback" and "Retaliation Safeguarding").
QUESTION 2: Do items selected to measure a concept actually do so?
It is expected that all subject responses are based on specific observable data experienced by students in their courses. Additionally, three of the five constructs (fair, objective, experiential learning) are adequately understood and able to be defined by the students. Two construct terms (retaliation safeguarding and constructive feedback) are discussed within the instrument via proxies created based on the literature review.