

## **On teaching methodologies and student achievement in learning**

IRRODL no longer accepts submissions describing teaching interventions or surveys on pedagogical approaches that make no reference to student achievement, performance, or retention. An educator is a person, who helps others to acquire knowledge, competences, outcomes, skills, or values. If there is no evidence that such learning acquisition takes place, there is no proof of the educational value of the intervention.

Pedagogical research in education must demonstrate that students actually learn something, or not. Negative results that show that a particular intervention resulted in "no achievement" can also be important. Studies on student engagement, attitudes, and satisfaction are only useful for educators insofar as they promote real learning (or not). This is not to argue that the focus of the research must always be on student outcomes, competences, achievement, etc., but rather to suggest that if an investigation into teaching/learning has another focus, there should also be some reference to whether or not learning took place. If there is evidence of actual learning by students (or student retention for example), then research on affective variables such as student engagement, empathy, attitudes, satisfaction, etc. can shed light on these educational fundamentals. What does it matter if a study examines Moore's "transactional distance" or Garrison's "community of inquiry" or constructivism or connectivism or student attitudes, etc., if the research does not also demonstrate that students actually learned something (or not)?

These approaches or methodologies can be shown to be useful for educators insofar as they promote real learning. Without any evidence of learning, however, the research is not relevant to a journal about learning.

A study may show that the students and the teacher were all happy with the experience and the students may believe that they have learned something (Kirkpatrick's level 1), but without any mention (in whatever form) of actual achievement, the approach or methodology, or the perception of students/teachers is of little, if any, value for learning. However, when combined with data on student achievement/mastery (or not), this research can become important and worthy of attention.

This surfeit of research that ignores actual learning can be traced to the ubiquitous dissemination of support for "learner-centredness." This view places most, if not all, of the educational emphasis on the learner rather than on a focus on learning. This extreme focus on the "learner" has resulted in many researchers all too often ignoring "learning," to the point where entire research interventions do not even mention it. For example, in the pedagogy associated with student satisfaction or teacher caring -- Is empathy always believing the learner? Isn't knowing when you are being played by the student also empathy? Couldn't student achievement be affected positively or negatively independent of student satisfaction? As another example, learning communities may increase interactivity, but does the interaction have an effect, either positive or negative, on student

achievement? If it does have a positive effect, then how can we improve learning through more or better quality interactions? If there is no positive effect on achievement, we may ask ourselves, why are we doing this? Are there other factors that do increase learning that should be focused on?

Can we become more "**learning-centred**" where instructors and researchers take a systemic approach, not ignoring the learner, but also possibly (depending on the research focus) including the teacher, the technology, the administration, the learning environment, and even the society – and most importantly the acquisition of learning?

Evidence of learning can take many forms; it need not be confined to objective tests or course grades. Performance and skills assessment can be used. Can the learner perform specified task or tasks? Are learners confident and skilled enough to develop and test a solution to a real problem? Are there identified quality improvements in the skills? Has the learner adopted scientific attitudes? Given a problem, can the student employ critical thinking skills to achieve a resolution?

To be clear, this insistence on reference to student achievement only refers to articles on student interventions and does not include papers that are based on non-pedagogical issues. Other open and distributed education articles (e.g., OER, administration, leadership, retention, etc.) will continue to be considered for review.

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