

The Use of Active Learning in Dentistry: Systematic Review

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INTRODUCTION

Historically, dental courses have been taught using traditional didactic teaching methods. While the acquisition of the factual knowledge is necessary, it is not enough for our learners to fully understand the complexities involved in this area of study. Active Learning has been shown to be an effective method of teaching, therefore incorporating it into dental seminars may be of benefit to students as it allows them to fully grasp the complexity of the discipline and to integrate this knowledge into their practice.

The purpose of this study is to evaluate if active learning is being incorporated as a teaching methodology among undergraduate dental or medical students, and if it is, the impact this has on the students' learning.

Active learning can be defined as:

meaningful activities in the classroom which engage students in the learning process, giving students control over their knowledge procurement.

METHODS

For this systematic review, two databases, MEDLINE and ERIC, were searched to determine if active learning is being utilized in dental or medical undergraduate courses.

This review is being conducted in accordance with Best Evidence Medical Education (BEME) review guidelines and will be submitted to BEME for publication.

Studies included in the review met the following criteria:

Activities must be within the classroom

Activities must be meaningful and allow students to reflect upon their learning

Students must be engaged in the learning process

RESULTS

A search was done of both MEDLINE and ERIC on September 1st, 2017. All authors reviewed the titles and those that met the inclusion criteria will be included in the next phase of the review.

Current Progress on Systematic Review

Select databases and run search term

- •537 Results from MEDLINE
- •62 Results from ERIC

Identify duplications

•37 articles removed

Identify non-English texts

9 articles removed

Identify non-relevant texts based on title and/or type of publication

- •321 articles removed from MEDLINE
- •25 articles removed from ERIC

Next steps

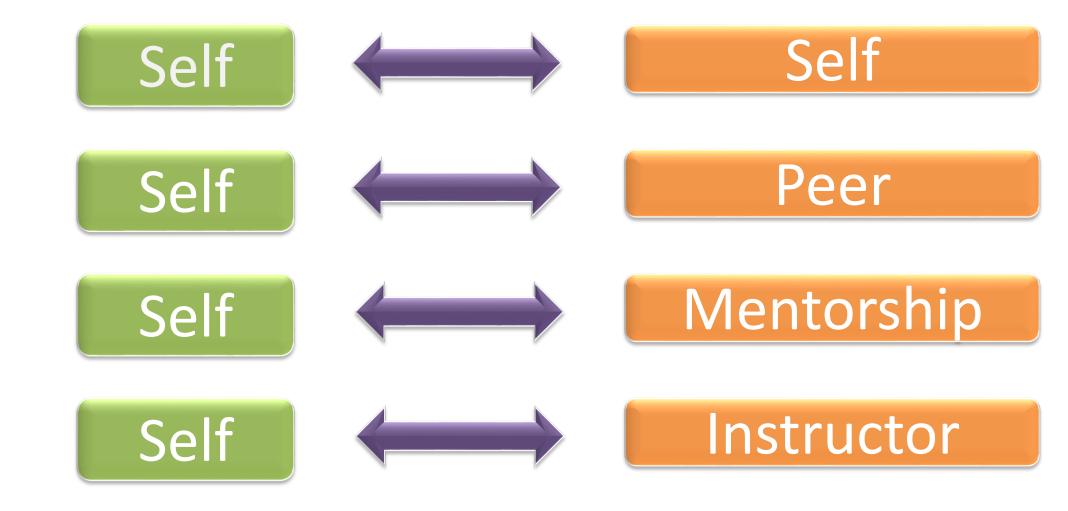
- •216 abstracts will be reviewed from MEDLINE
- •38 abstracts will be reviewed from ERIC

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CONCEPTUAL FRAMEWORK

A conceptual framework that is process and engagement oriented and influenced by Activity Theory was developed for this systematic review. This framework is not hierarchical, but a categorization of active learning techniques that can be used in the classroom.



Active Learning: Learning Relationships Framework (2017)

This framework will allow the authors to determine the percent of articles that fit within each category, as well as how many articles utilize more than 1, and/or more than 2, of the categories.

NEXT STEPS

The next steps for the systematic review include:

- 1. Registering the protocol with BEME
- 2. Reading the abstracts of the articles from MEDLINE and ERIC
- 3. Reading the entire articles selected from the abstracts
- 4. Determine which articles met the criteria for inclusion in the review
- 5. Determine which category the included articles fall within
- 6. Analyze the data gathered to determine how active learning is utilized in medical/dental courses and the impact on student learning

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