

# EFFECTIVENESS OF THE FLIPPED CLASSROOM METHODOLOGY IN THE PERFORMANCE OF HIGHER EDUCATION STUDENTS - SYSTEMATIC REVIEW WITH META-ANALYSIS

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## **Introduction:**

The methodology Flipped Classroom (FC) consists in individual activities that the student has to do at home through the use of technologies which help the student to prepare for class, and during classes, activities are performed as more dynamic classes centered on the student. Through the years, the success has reached the maximum levels of performance and satisfaction in the teaching sessions in different areas of education compared to the classical methods, and there are no conclusive and considerable studies that compile and analyze this information succinctly.

## **Objective:**

To analyze experimental and quasi-experimental studies that evaluate the methodology database in FC in performance and student satisfaction in comparison with the expository methodology.

## **Methodology:**

This article is a systematic review that analyzes the randomized controlled trial (RCT) and Quasi-experimental studies selected with the methodology FC, which measures the efficacy through the results achieved in the realization and evaluation of the students. These articles were found in EBSCOhost and PubMed.

## **Results:**

We selected 41 articles, that fulfilled all inclusion criteria established by the authors, for the accomplishment of this systematic review.

## **Discussion:**

The results of our meta-analysis, both RCTs and quasi-experimental studies, point to a better effectiveness of the FC methodology compared to the expository methodology in academic performance. However, there is a heterogeneity in planned and developed activities during class, which means that our conclusions can't be generalized. The poor methodological quality of the included studies, especially quasi-experimental studies, does not allow our conclusions about efficacy to be vigorous. Nevertheless, based on these first promising data, it seems to us that this methodology offers learning opportunities that aren't possible in a classroom based on lectures and subject matter exposition.

## **Conclusion:**

Although the articles selected have poor methodological quality, and it is necessary more rigorous investigations on this methodology, we believe that the FC methodology could revolutionize teaching methods and replace traditional teaching, which is so deeply rooted in today's society and doesn't seem to favor the achievement of transversal competences.

**keywords:** flipped classroom, expository methodology, performance, higher education.

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