THE FLIPPED CLASSROOM IMPROVES PHYSIOTHERAPY STUDENTS PERFORMANCE AND SATISFACTION IN THE DISCIPLINE OF PHYSIOLOGY: A **QUASI-EXPERIMENTAL STUDY** 

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Introduction:

In a flipped classroom (FC) approach, students study instructional material before class (e.g., by watching online lectures) while traditional class time is reserved for discussion and/or problem solving of the relevant topics. The popularity of this pedagogical approach, also known as flipped learning or the inverted classroom, has been growing

rapidly during the last decade.

Objective:

The objective of this work is to compare FC class (CF) with an expositive approach (EA) in academic performance and satisfaction with the discipline of physiology in physiotherapy students of the School of Health of Alcoitão (ESSA).

Methodology:

In the year 2013/2014 the discipline of Physiology was taught according to the EA, the students were subjected to two evaluation moments, a first test, which evaluated the first part of the subject taught in the classes, and the second test, which evaluated the knowledge about the second part of the subject. At the end of the disicpline, a questionnaire was applied that evaluated students' satisfaction with the discipline and the teacher's performance. In the following academic year (2014/2015) in the same discipline the FC approach was used and the same evaluation instruments

were used.

Results: Student's t-test revealed the existence of a significant difference between the EA group(n = 53) and the FC group(n = 57) at the means of the tests. The FC group (mean = 17.096) had a significantly higher mean compared to the EA group (mean = 14.953). Student's t-test revealed the existence of a significant difference between the EA group (n = 53) and the FC group (n = 57) in the satisfaction with the discipline. The group submitted to the FC approach has a significantly higher satisfaction, compared to the group submitted to the expository method, with the discipline (FC average = 6.466, EA average = 5,714) and with the teacher (FC average = 6.462, EA average = 5.849).

Discussion and conclusion:

This demonstrates that FC, if properly implemented with cooperative learning, can lead to increased academic performance and student satisfaction and is an effective mean to disseminate key physiological concepts to graduate students.

**keywords:** flipped classroom, cooperative learning, students' satisfaction.

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