

# The Effect of Flipped Learning on Primary School Students Math Learning in Multilevel Classes

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## ABSTRACT

The innovation in flipped classroom, as a teaching approach, is replacing the role of teachers from speaker to a facilitator which is a main concern for new learning environments. This study aims to examine the effect of flipped classroom on different levels of learning mathematics based on Bloom's taxonomy of educational objectives in multilevel classes. The statistical population of this quasi-experimental study was pretest-posttest design with one group and included all multilevel classes in the academic year of 2018-2019 in Farahan primary school in Arak, Iran. One multilevel class including grad 3<sup>th</sup> and 4<sup>th</sup> of the students divided into two groups as available sample. Data was gathered using math teacher made test. At first pretest was performed for both groups. Then the students received the instruction based on flipped classroom via compact discs prepared by the teacher. At the end of the training post-test was done. Descriptive and inferential statistics including T test were used for data analysis. The results of the study indicated that instructional flipped learning method has improved students higher learning levels as well as their lower learning levels in the math for both groups. It can be concluded that flipped learning can help multiage teaching in class management and saving a lot of time to be able to engage the students in class activities.



**Keywords:** learning levels; multiage classroom; multigrade teaching; new learning environments; reversed classroom