

EVALUATION OF JIGSAW STRATEGY AND MASTERY LEARNING (JSML) MODULE VERSUS CONVENTIONAL INSTRUCTION IN TEACHING MATHEMATICS

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ABSTRACT

Objective – To evaluate the effects of JSML Module versus Conventional Instruction in teaching mathematics.

Design – Non-equivalent control group quasi-experimental design

Sample population – Eighty (80) first-year senior secondary school students in the Gombe – Nigeria. The students were randomly assigned to two groups: Conventional instruction ($N = 40$) and JSML instruction ($N = 40$)

Procedure – Before the intervention began, teachers and students were trained by the researcher on how to use the module for one week to enable them to master the skills before embarking on the treatment. The five weeks' study consisted of three phases: (a) Pre-test (b) twelve (12) lesson sessions devoted to studying the four mathematics topics (algebra, simultaneous equations, indices and logarithms) which lasted for three weeks, and (c) Post-testing

Results – Students in the Jigsaw strategy and Mastery learning (JSML) group achieved significantly better on the post-test than conventionally instructed students. After the treatment JSML group stated that the JSML module alone provided them with effective instruction.

Conclusion – JSML learning is an acceptable and effective method of teaching students to learn mathematics

Keywords: Cooperative learning, Jigsaw strategy, mastery learning strategy; achievement; conventional method; mathematics.