「MOODLE網路數位學習平台」教學對國中數學學習成就之探討-以商高定理單元為例

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摘要

The purpose of this study was to integrate the strategic teaching with "MOODLE Digital Learning Platform", assessing the learning achievement and attitude of Junior High School 2th grade students on the units of Pythagorean Theorem. The research adopted "quasi-experiment": applying a five-classes (225 minutes) group teaching on the 2th grade Junior High School students, and implementing the "Pythagorean Theorem Achievement Tests" and "Survey of Students' Attitude toward Mathematical Learning" as a research tool, which consisted of pre-test and post-test. Then the collected data was analyzed by means of ANCOVA, the analysis of covariance.
The conclusions of this study are: 1. There are significant difference ($p<0.05$) between the experimental group and control group ; besides, the latter students' achievement scores are higher than the former students' ones, which showed that the experimental teaching is better than the traditional one. 2. The experimental group and control group on average of mathematical attitudes were over the control group. But no significant difference, which may be caused by the common usage and generalization of internet. 3. According to the data from the students' achievement test and learning attitude, the post-test average scores of the experimental group are

higher than the pre-test ones, which inferred that “MOODLE Digital Learning Platform” is
helpful for students’ learning, both on achievement and motivation. The study can be applied to
the relationship between the teaching model and the learners with different learning styles,
genders, and information attainments, and to differentiate the learning achievement with the
motivation and feelings; moreover, to judge the effectiveness on students’ problem-solving
capability and meta-cognition.

關鍵字：MOODLE、Mathematics Learning Achievement、Mathematics Learning attitude、Pythagorean theorem