GAMIFICATION: ENHANCING STUDENTS' MOTIVATION AND PERFORMANCE IN GRADE 10 PHYSICS

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PLAN

Students lack motivation towards learning physics which in turn result to poor performance in the subject.

Game elements such as rewards, badges, levels, XPs and leaderboards make games fun, challenging, exciting and relatable.

Elements of games are incorporated in physics classes in order to enhance students' motivation and performance in physics.

DO

Gamification was implemented for four weeks by converting activities such as seat works, assignments, board work, recitation, and tests to quest missions.

Corresponding XPs, badges and rewards were given whenever students accomplished mission tasks.

Progress were made known by displaying the students' levels and leaderboards.

After class hours, students were given option to do additional tasks to gain more XPs.

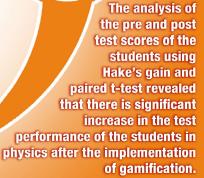**GAMIFICATION** is the integration of game elements and design in a nongame context.

LEVEL UP!

STUDY

The analysis of the pre and post test scores of the students using Hake's gain and paired t-test revealed that there is significant increase in the test performance of the students in physics after the implementation of gamification.

The result of the motivation survey and thematic coding of the journal entries and focus group discussion transcriptions showed that students were motivated to participate in class when elements of games were applied.

Students view gamification as fun, exciting, enjoyable, motivates them to participate, makes them feel competent, helps them to learn more and monitor progress, and encourage them to interact.

ACT

Gamification should be tried out in other challenging subjects which students find boring or difficult to understand.

Future research about gamification can be done with other types or level of respondents, or implementing other activities, addition of more game elements or measuring other constructs.

Further studies on analysis on the effects of gamification can be presented such as how it can be used to reduce the gap between high and low achievers or to improve students' metacognition.

Longitudinal study on the effects of gamification on students' motivation and performance can be done for future researches.