

# USING AN IN-CLASS PROJECT TO ENHANCE HIGH SCHOOL STUDENTS' LEARNING ABOUT GALAXIES IN AN ONLINE PHYSICS CLASSROOM

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Teaching astronomy in high school physics became challenging when the classroom moved online. We found that students had very little interaction during the teaching period. Some of them could not express their ideas. Therefore, when teaching the topic of galaxies, we changed our approach to encourage their learning by using an in-class project based on project-based learning. The work we present aims to investigate the achievement of teaching the topic of galaxies by providing an in-class project that involved creating a poster on a galaxy. The activity was applied to an online-physics classroom with 75 high-school students to enhance their understanding and skills of literacy and creativity. A teacher provided the instructions and introduced the activity. Following this, the galaxy poster activity was left to the students. Individual students had to explore and create their own poster based on the public information from NASA to answer a few questions. We found that during this activity there was more discussion between the teacher and students. After the class, their work was shown in the classroom. We found that most students could answer the questions related to their understanding of the topic correctly. Some of the students failed to find some answers, for example, regarding the galaxy morphology and diameter. Details of the online teaching will be given, along with the limitations and future improvements.

## FURTHER READING

Holubova, R. (2008). Effective Teaching Methods--Project-based Learning in Physics. *Online Submission, US-China Education Review*, 5(12), 27-36.

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