

ABSTRACT

Endang Natalya. Development of chemical literacy and understanding of students' concepts through the integration of dilemmas stories in the STEAM project on colloid material. **Thesis**. Jakarta: Master Program in Chemistry Education. Department of Chemistry, Faculty of Mathematics and Natural Sciences, Jakarta State University, August 2020.

This study aims to develop students' chemical literacy skills and conceptual understanding through the integration of dilemmas stories and the STEAM project in chemistry learning on the colloid material for class XI MIPA 2, which amounts to 34 students and was carried out in the even semester of the 2019/2020 school year at SMA Kristen 6 PENABUR Jakarta.

The research method used is qualitative research. The focus of this research is the ability of chemical literacy and understanding of students' concepts that can develop in learning chemistry on colloid material which is supported by using learning media for dilemma stories about smoke pollution and a project to make a smoke absorbance device. This research consists of three stages, namely the preparation activity stage, the implementation activity stage, and the final activity stage. Data collection techniques in this study used student interviews, student journal reflective, observation sheets, researchers' diaries, documentation, and chemical literacy tests.

The results of the research by applying the integration of dilemmas stories in the STEAM project on this colloid material were obtained from coding data which showed that students could develop chemical literacy skills and understanding concepts. Students can provide general scientific ideas, chemical characteristics, chemistry in context, high-level learning skills, and affective aspects. The development of chemical literacy skills and students' understanding of concepts that emerge is the development of critical thinking skills, creativity, increasing motivation, and student involvement as well as producing meaningful and contextual learning for students. So that students who have such abilities can be said to have a high level of understanding because they are able to connect the concepts that students have learned in solving social problems that exist in everyday life. The results of this study can be concluded that the integration of dilemmas stories in the STEAM project can develop students' chemical literacy and conceptual understanding where teachers have the challenge of being able to develop learning innovations so that students can experience chemistry learning that is more relevant to everyday life.

Keywords: Chemistry Learning, Chemical Literacy, Dilemmas Stories, STEAM Project, Colloid Topic.