

LOVE IN LAB: STUDENTS' SCIENCE PROCESS SKILLS USE AND GROWTH

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ABSTRACT

Students' performance of the different tasks in a laboratory class entails the use of the different science process skills. The aim of this research is to identify how the students use and significantly change in their acquisition of the different basic and integrated science process skills while conducting the different science experiments specifically in biochemistry and physics classes. These utilizes phenomenological qualitative research design to document the participants' behavior and experiences with the use of the different science process skills while the conduct of the different laboratory experiments is in transit. The analyses on students' use and growth of process skills learning will be based on the observation among the students on their behavior and skills demonstration during the actual laboratory experiments. Moreover, their laboratory reports were analyzed how they reason out and explain their answers in the different guide questions in the context of science process skills use through open coding and categorized into themes. Further, this study shows that the students were able to enjoy the laboratory experiments based on their captured participation in the still pictures and videos; a positive change in the demonstration of the different basic and integrated science process skills as evident in their performance of other experiments; and the students' use and growth in science process skills can be categorized as (1)Starter, (2)Estimator, (3)Digitech Experimenter, (4)Lab Worker, (5)Thinker and (6)Creator. Observing, measuring, making variables, and hypothesizing were the easily learned process skills. The students have developing level on designing investigation, experimenting, graphing and making a conclusion. This study also confirms that the teachers' preparation of the laboratory activity, effective use of laboratory apparatus and processing of results allowed the students to develop a higher order of integrated science process skills.

Keywords: Laboratory, science process skills, apparatus, activities, basic process skills