

Students' Lived Experiences and Challenges in Earth Science through Place-Based Education

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Abstract

This study explored the lived experiences of Senior High School students in learning Earth Science through Place-Based Education (PBE) at Togiak School in Alaska. It focused on how students experienced the integration of PBE in their Earth Science classes, how outdoor and place-based activities helped them understand scientific concepts, how these experiences influenced their engagement, and the challenges they encountered along the way. The study used a qualitative phenomenological approach and involved ten Senior High School students who were selected through purposive sampling. Data were gathered through semi-structured interviews and analyzed using Colaizzi's phenomenological method. As observed from the findings, it was evident that the Earth Science subjects were much more meaningful for the students when the subject was taught in relation to familiar 12 2 Philippine Christian University Graduate School of Education places, experiences, and environment. Field activities such as shoreline observations, mapping, and discussion on the environment helped them understand the concepts through direct observation of the scientific phenomenon taking place in the surroundings. Moreover, students also mentioned that through the place-based activities, they were more enthusiastic and participative in class discussions. However, they also encountered challenges, including unfavorable weather conditions, transportation limitations, limited resources, and unfamiliar scientific terms. Nevertheless, despite the aforementioned challenges, students believed that the advantages of learning in their surroundings exceeded the problems. Another important finding of the study was that involvement of community people and indigenous knowledge will enhance the significance of Earth Science learning. In general, from the results of the study, it can be concluded that Place-based Education will help in making Earth Science learning engaging and relevant.

Keywords: Earth Science; Place-Based Education, Student Engagement, Indigenous Knowledge; Qualitative Phenomenology, Semi-Structured Interviews, Colaizzi's Method; Togiak, Alaska, United States

