Zakiya Nurul Ulfa. 2026. ***The Implementation of an Augmented Reality-Based Project-Based Learning E-Worksheet in Biology Instruction on the Concept of Insects to Foster Students' Information Verification Skills (Development of the Third Indicator of Digital Habits of Mind). Supervised by*** **Dr. Ida Yayu Nurul Hizqiyah, S.Pd., M.Si.,** ***and*** **Saiman Rosamsi, S.Pd., M.Pd.**

ABSTRACT

The rapid advancement of digital technology has increased the need for information verification skills to ensure that the information used is accurate and reliable. Survey results indicated that only 19.8% of respondents were able to verify information independently, solve problems, and assist others in verifying information. These findings highlight the importance of developing information verification skills as an essential component of Digital Habits of Mind. This study aimed to determine the effectiveness of implementing a Project-Based Learning (PjBL) e-worksheet integrated with Augmented Reality (AR) in fostering students' information verification skills, improving conceptual understanding of the roles of insects in ecosystems, and examining the relationships between information verification skills, conceptual understanding, and learning motivation. The study employed a pre-experimental method using a one-shot case study involving tenth-grade students at SMA Pasundan 2 Bandung in the 2025/2026 academic year. Data were collected through a conceptual understanding test, an information verification skills assessment rubric, and a learning motivation questionnaire. The data were analyzed using the N-Gain test, descriptive percentage analysis, and correlation analysis. The results showed that the implementation of the AR-based PjBL e-worksheet was effective in fostering students' information verification skills, which reached the good category, improving conceptual understanding in the moderate category, and generating learning motivation in the very good category. Furthermore, no significant relationship was found between information verification skills and conceptual understanding. Therefore, the AR-based PjBL e-worksheet can serve as an alternative approach to Biology instruction that supports the development of students' information verification skills, conceptual understanding, and learning motivation to meet the demands of 21st-century education.

Keywords: *Augmented Reality (AR), Digital Habits of Mind, information verification skills, Project Based Learning (PjBL)*