Analyzing Physic Learning and the STEAM Approach on Local Wisdom Site of Majapahit in Brick—Macking Process

^{*1}Novita Eka Putri,²Dadan Rosana,³Harto Nuroso

^{1&2}Departmet of Physiscs Education, FMIPA, Yogyakarta State University, Indonesia ³Departmet of Physiscs Education, FPMIPATI, PGRI Semarang University, Indonesia

Author's email:

¹novitaeka.2022@student.uny.ac.id; ²danrosana@uny.ac.id; ³hartonuroso@upgris.ac.id

*Corresponding author: 1novitaeka.2022@student.uny.ac.id

Abstract. Brick is one of Indonesia's cultural heritages that has existed since the Majapahit era and is rich in meaning and philosophical values. To this day, bricks have spread across various regions with unique designs. The process of making bricks is often taught in arts and technical subjects at the university level. However, brick-making can be integrated into high school physics subjects. This study aims to identify STEAM aspects in the brick-making process and examine the physics lessons embedded in it, which can be used to develop teaching media for students. The research method used is qualitative with descriptive analysis based on the Miles and Huberman model. The sampling technique employed purposive sampling, with data collected through observations, in-depth interviews, personal documentation, and literature studies. The results show that the Majapahit local wisdom site, particularly the brick-making process, encompasses STEAM aspects and various physics concepts that can serve as engaging topics for developing high school physics teaching media.

Keywords: Bricks Making Process, Local Wisdom, Majapahit, Phyisics Learning, STEAM