ABSTRACT

Bosscha Observatory is the only active astronomical observatory in Indonesia that plays an important role in astronomy research and education. However, the development of urbanization around Lembang has led to increased light pollution, which threatens the observatory's function in conducting night sky observations. Low public awareness of the impact of light pollution is one of the main obstacles in the efforts to preserve Bosscha Observatory. This research aims to design educational media based on 2D animation that integrates digital compositing and editing techniques to increase public understanding, especially the younger generation, about the importance of protecting the observatory environment from light pollution. The method used in this research is a qualitative method with a field observation approach, expert interviews, and literature studies. The animation design process includes pre-production, production, and post-production stages with an emphasis on digital compositing and editing techniques to create interesting and informative visuals. The results of this research are expected to contribute to increasing public awareness of the importance of preserving Bosscha Observatory as a cultural heritage, as well as minimizing the impact of light pollution on astronomical research. Through 2D animation media, educational messages can be conveyed more effectively and interestingly to the younger generation, so that they can participate in maintaining the sustainability of scientific and cultural heritage in Indonesia.

Keywords: *Media Design, Cultural Heritage Preservation, Bosscha Observatory, Light Pollution.*