

ABSTRACT

The low level of visits and computer usage at the Limbah Pustaka Mobile Library has become a challenge due to the increasing use of gadgets by children. This study aims to identify effective strategies to enhance children's interest in visiting the library while utilizing the available facilities through the development of a Unity-based educational game. To address this issue, the Game Development Life Cycle (GDLC) approach was employed, consisting of six stages: initiation, pre-production, production, testing, beta testing, and release. The study findings reveal that the application of this method produced an engaging educational game with a feasibility rate of 90.55%, as indicated by beta testing on visual aspects, gameplay, and attractiveness. Additionally, the number of library visitors significantly increased from 115 to 338 within one month of the game's release. This game provides an enjoyable interactive learning experience, enhances children's social skills through in-game challenges, and introduces recycling concepts that raise environmental awareness. Based on these results, it can be concluded that the development of Unity-based educational games using the GDLC approach is an effective strategy to increase visitor numbers, optimize library facilities, and support innovative technology-based learning.

Keywords: Educational Games, Handcrafts, Unity, Game Development Life Cycle