

# **VIRTUAL REALITY DEVELOPMENT AS MEDIA LEARNING FOR ACHIEVING STUDENTS' COMPETENCY OF GARMENT PRODUCTION PLANNING**

**by Widiastuti, M.Adam Jerusalem, Kusminarko Warno, Dian Retnasari, Arasinah Kamis**

## **ABSTRACT**

One of the breakthroughs in digital information technology that has begun to be developed in the world of education in the current industrial 4.0 era is virtual reality (VR). VR functions as an effective learning media because it has advantages, including not only having the ability to attract us to a new world but also having the capacity to improve the quality of education by unlocking the potential for learning more than before. The application of VR in learning in tertiary institutions, especially in learning clothing, will greatly assist students in understanding and constructing real learning materials using computers. Especially for garment production planning learning, students will be brought to the real world of work in the garment industry so that they can virtually experience the real work environment in the garment industry. Therefore, this study aims to: (1) develop VR with characteristics as a suitable learning media for garment production planning courses in college; (2) to know the feasibility of VR as a learning medium for garment production planning courses in college; and (3) determine the effectiveness of VR which is developed as a learning media for the achievement of student competencies in the field of garment production planning.

This type of research is development research with a multimedia development model which consists of 3 (three) stages, namely: the planning stage, the design stage, and the development stage. The test subjects were students who took the course of planning and controlling garment production in the PTBB FT UNY Fashion Engineering Education study program. Data collection techniques are questionnaires, validation, and assessment of the resulting products, interviews, documentation, and tests. The research instruments were questionnaire sheets, validation sheets, interview guides, document checklist sheets, and test questions. The validity of the instrument was proven by the validity of the contents analyzed with the V Aiken formula, and the reliability was proven by the ICC analysis. The data analysis technique was using descriptive statistical techniques.

The results of this study are: (1) the VR products that have practical characteristics and can be applied to gadgets so that all students can use them more easily; (2) VR media developed has met the feasibility of both material aspects, media aspects, and practicality to be used in garment production planning course; and (3) the developed VR media is also effective for the achievement of student competencies in garment production planning.

*Kata Kunci: virtual reality, learning media, competence, garment production planning*