

## **Isn't it effective if the transformation of product design tests into 3-dimension modelling?**

**Oleh: Jarwo Puspito, Badrun Kartowagiran, Sudiyatno, Bayu Rahmat Setiadi**

### **ABSTRAK**

This study aims to prove whether changing and transforming into 3D modelling is more effective and efficient than presenting product design job questions in the form of 2D multi-view projection. This research study uses a mix-method with a sequential explanatory design—data collection using questionnaires and observations from video recordings of work. The research object was 28 students taking CAD courses in the Mechanical Engineering Education Department. The Covid-19 pandemic resulted in data collection being carried out online. The results showed that students' speed on drawing problems with 2D and 3D modelling according to three levels (easy, medium, and difficult) had differences. The 3D modelling view makes it easy for respondents to do it in a short time and with the right results. If explored more in-depth, the thinking skills that dominate respondents according to their perceptions emphasize creative thinking processes and the ability to solve problems.

*Kata Kunci: 3d, modelling drawing, transformation*