

## Designing a Website-Based Financial Mathematics Calculator User Interface for High School Students Using User Centered Design Method

Ezar Rizqullah Tsaqif S.<sup>1</sup>, Ati Suci Dian Martha<sup>2</sup>, Rosa Reska Riskiana<sup>3</sup>

School of Computing, Telkom University, Bandung

<sup>1</sup>ezarizqullahts@students.telkomuniversity.ac.id, <sup>2</sup>aciantha@telkomuniversity.ac.id,

<sup>3</sup>rosareskaa@telkomuniversity.ac.id

---

### Abstract

The level of financial literacy in Indonesia as of 2013 is categorized as a country with a low level of financial literacy with a percentage of 21.84%. The Indonesian government, which realizes the importance of financial literacy, is also intensively teaching financial literacy, especially at the school level where financial mathematics material is included in the K13 national compulsory curriculum. This research was conducted to support financial literacy activities by re-developing new learning media in the form of a web-based financial mathematics calculator that can help students understand the concepts of financial mathematics in the mandatory curriculum at the high school level. In the development process, this research uses the User Centered Design (UCD) method which focuses on the development of user needs and desires. The result of this research is a web-based financial mathematics calculator that is ready to be used by students and has received a good response, this refers to the results of evaluating the usability value when testing using the System Usability Scale (SUS) method. Based on the results of the questionnaire, a final SUS score of 93.2 was obtained for the usability factor and 74 for the learnability factor. This score if represented is already included in the Excellent category for the usability factor and Good for the learnability factor. The use of Mat-Keu as a medium for learning financial mathematics contributes to SNLKI activities at the SMK level. because this Mat-Keu has been tested valid and can be used to easily solve financial mathematics problems in the K13 curriculum.

**Keywords:** Financial math calculator, financial literacy, usability testing, high school, black-box testing

---