ABSTRACT

PENERAPAN METODE *USER CENTERED DESIGN (UCD)* DALAM PERANCANGAN FRONT-END SISTEM PEMINJAMAN LABORATORIUM BERBASIS *WEBSITE*

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The development of information technology in the current era of globalization cannot be avoided anymore. Rapid technological developments make all existing sectors are encouraged to make changes and innovations. Telkom Institute of Technology Purwokerto is one of the private universities in Central Java that focuses on developing information technology-based knowledge in the fields of Healthcare, Argo-Industry, Tourism, and Small Medium Enterprise (HATS). The focus of the development of technology-based science is in line with the development of facilities available at the Faculty of Informatics, such as the use of laboratory space as a means of self-development for students in the field of technology. One of the implementations of management in the Faculty of Informatics is Laboratory management as a means of directing, planning, supervising, and organizing service activities and guidance on the use of other resources. At the interview stage in the flow of borrowing laboratory rooms, the Faculty of Informatics still uses a manual process and confirmation of the loan is still verbal. The subjects of this research are students and students of the Telkom Purwokerto Institute of Technology, laboratory assistants, lecturers who are conducting research and laboratory managers. Application of user-centered design methods in the laboratory loan process. It is divided into four phases: basic context of use, identification of user requirements, creation of design solutions, and reassessment of requirements. In the first stage, the initial interview leads to three actors: User, admin, and super admin. In the second stage, the user needs the functionality contained in the user interface. The third stage, making design solutions, making use case diagrams, activity diagrams, wireframes, medium fidelity, and front end. In the fourth stage, the evaluation of the related requirements leads to the final design for the front end. The results of the usability test using the User Experience Questionnaire (UEQ) to evaluate the front-end of borrowing laboratory space for users with the highest average score on the aspect of clarity (perspicuity) which gets the excellent category. In admin, the highest average score is on the aspect of clarity (perspicuity) which gets the good category.

Keywords*: *laboratorium, User centered design, front-end.