

ABSTRACT

DESIGNING HIGH FIDELITY PROTOTYPE OF POLISIKITA USING USER-CENTERED DESIGN APPROACH AND ANALYTICAL HIERARCHY PROCESS METHOD

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Prototype is a model of the product used to provide the concept or description of the design to be made. Prototype design process needs to consider the user needs. Polisikita one of application that in the process of designing in terms of features and application functions determined by the regional Police of Yogyakarta and has not involved users in the design process. To solve the existing problem, this research uses user-centered design approach and Analytic Hierarchy Process (AHP) method.

In this study using google design sprint method as a step that is used in designing prototype polisikita. The results of the analysis of the old version of polisikita application obtained from the implementation of usability testing. The results of usability testing become the reference in making three new polisikita prototype designs. The best design selection is assisted by a decision support system that uses Analytic Hierarchy Process (AHP). The usability testing process involved eight participants. The result of usability testing between the new and polisikita versions of the new version will be compared.

The results of AHP calculation shows that the best design obtained an average usability score of 7,364 with a priority value of 0.719911. The number of minimum taps on polisikita of the new version is 20.83% less than the old version of the polisikita. the usability score of the new version of polisikita has increased by 50.43% from the old version of the polisikita. Based on the data obtained from the comparison of usability testing and user assessment through usability score, it can be concluded that the design and selection of prototype with approach to the user can produce a better design.

Keywords: *polisikita, user-centered design, usability testing, AHP, prototyping.*