

ABSTRAK

**PENERAPAN METODE *USER CENTERED DESIGN* (UCD)
DAN MODEL *INCREMENTAL* PADA PENGEMBANGAN SISTEM
INFORMASI MANAJEMEN UJI KOMPETENSI**

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Lembaga Sertifikasi Profesi (LSP) UIN SAIZU mengalami hambatan dalam pelaksanaan uji kompetensi akibat belum tersedianya sistem informasi yang terintegrasi. Prosedur manual meningkatkan beban kerja, terutama pada tahap verifikasi, asesmen, dan pelaporan. Penelitian ini bertujuan untuk merancang dan membangun Sistem Informasi Manajemen Uji Kompetensi berbasis pendekatan *User-Centered Design* (UCD) untuk mengidentifikasi kebutuhan pengguna, dikombinasikan dengan model pengembangan *Incremental* yang disesuaikan dengan alur pelaksanaan uji kompetensi. Evaluasi akhir dilakukan dengan *task-based usability testing* terhadap tujuh responden, yang mewakili admin, asesi, dan asesor sebagai penggunanya. Hasil pengujian menunjukkan tingkat *effectiveness* sebesar 91,39%, *time-based efficiency* berkisar antara 3,17–5,68%, dan *overall relative efficiency* antara 80,79–96,17%. Selain itu, efisiensi waktu pada lima aktivitas utama meningkat signifikan, seperti penghematan waktu 99,97% pada pembuatan laporan rekap dan 85,3% pada proses verifikasi pendaftar. Skor *System Usability Scale* (SUS) sebesar 85,71 dikategorikan "Best Imaginable". Hasil ini menunjukkan bahwa sistem efektif, efisien, serta memenuhi kebutuhan pengguna dalam mendukung pelaksanaan uji kompetensi secara digital dan terstruktur.

Kata Kunci: Uji Kompetensi, LSP, *User-Centered Design*, *Incremental*, *Usability Testing*

ABSTRACT

IMPLEMENTATION OF USER-CENTERED DESIGN (UCD) AND INCREMENTAL MODEL IN THE DEVELOPMENT OF A COMPETENCY ASSESSMENT MANAGEMENT INFORMATION SYSTEM

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The Professional Certification Institute (LSP) at UIN SAIZU faces obstacles in conducting competency assessments due to the absence of an integrated information system. Manual procedures significantly increase workloads, particularly during verification, assessment, and reporting stages. This study aims to design and develop a Competency Assessment Management Information System using a User-Centered Design (UCD) approach to identify user needs, combined with the Incremental development model tailored to the actual assessment process flow. The final evaluation employed task-based usability testing involving seven participants representing admins, candidates (asesi), and assessors (asesor). The results indicated an effectiveness rate of 91.39%, time-based efficiency ranging from 3.17% to 5.68%, and overall relative efficiency between 80.79% and 96.17%. Moreover, significant time savings were recorded in five core activities, including a 99.97% reduction in time for report generation and an 85.3% reduction for candidate verification. The System Usability Scale (SUS) score of 85.71 is classified as “Best Imaginable.” These findings demonstrate that the system is effective, efficient, and successfully addresses user needs in supporting a digital and structured competency assessment process.

Keywords: Competency Assessment, LSP, User-Centered Design, Incremental, Usability Testing