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**Assessing QuickCheck:**

**An In-Depth Analysis of User-Assisted Testing and Load Testing in a Vision Screening Mobile Application**

The Educating Young Eye (EYE) Research Group (led by Dr. William Erdly, Ph.D.), in collaboration with the Near Vision Insititute (led by Dr. Alan Pearson, OD Ph.D. FCOVD), focuses on children near vision assessment and therapy using the latest modern technologies based on existing research works such as virtual reality and mobile applications.

One of the EYE Research Group’s ongoing projects, QuickCheck, is a revolutionary project aimed at addressing undiagnosed and untreated vision problems in school-aged children. The project integrates technology into pediatric vision care, particularly with the application developed using the Unity engine. It is an application that can determine symptoms of convergence insufficiency by using the Convergence Insufficiency Symptom Survey (CISS) to help people determine whether they should see an eye doctor. To bolster the project's reliability and efficacy, my role involved load testing and user-assisted testing of the QuickCheck application. This ensured that the software application functioned optimally under different user loads. This analysis used varying durations and user quantities to emulate real-world usage patterns.

Results indicated that the QuickCheck app could consistently support 300 users across all test durations, showcasing its robustness. However, a session-related challenge surfaced during extended testing, hinting at potential difficulties in session management that might affect user experience.

The QuickCheck application embodies a pivotal shift in pediatric vision care, blending advanced technology with essential medical assessments. While the preliminary results are promising, we recognize that we're in the dynamic phase of clinical trials. Gathering real-time data and insights from these trials, coupled with feedback from educators through user-assisted report forms, will be instrumental in refining the application. Our vision is not just to iterate upon the present build, but to enhance it to a level where it's ready for public deployment. This holistic approach ensures that when QuickCheck is introduced to a broader audience, it's not just technologically sound but also resonates with the genuine needs and feedback of its users.