

**Framework for an Effective Formal Technical Review in Software  
Quality Assurance**

**Lawrence Nderu**

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## **ABSTRACT**

Formal technical review (FTR) is an essential component of all software quality assessment, assurance and improvement techniques. However, current FTR practice leads to significant expense, clerical overhead, group process obstacles, and research methodology problems. This research aimed at looking for ways and means of making FTR more effective and less of a burden.

This research affirms that the background and experience variables of the reviewers affect the defects a reviewer is able to uncover at different phases of software development. It then presents the most important background and experience variables for a reviewer to be able to uncover certain classes of defects.

Software products are largely different, this could be due to for example, the environment of use, the effects of malfunctioning (it could be mild or fatal). This research provides a framework in which quality knowledge (lessons learned in software inspection) can be captured and reused during the inspection process. We pursue the idea of the accumulation of knowledge during reviews and establish a framework and a tool environment in which experience gained can be used by Project Managers when preparing for Formal Technical Reviews.