

Software Development Practices, Barriers in the Field and the Relationship to Software Quality

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The goal of this study is to identify promising areas of research to improve the quality of government software. They surveyed fifty software development professionals and asked about practices. The participants represented developers from both government and commercial software. They constructed an online survey that contained 46 main questions about background, current projects and barrier. Questions to rate on the scale of 1 to 5, such as:

- Rate Number of Software Defects (design or code errors, bad fixes)
- Rate Severity of Known Software Defects

They Did not found evidence in favor of the hypothesis that commercial software would be rated higher quality than government software in fact government software was reported to be more portable.

Positive:

Data collected from Survey on barriers indicated many barriers which would be helpful to conduct further work to improve software quality. Barrier tasks were further classified into two categories

- Task Switching and getting enough time for software development
- Documentation Related Issue

Addressing these barriers would help Improve maintainability

Negative:

1. Study was small survey with only fifty participants which poses a threat to validity.
2. They performed large number of statistical tests but did not provide the results because more responses would be needed to produce more reliable results.
3. The software quality ratings were subjective and thus does not hold true for objective quality assessment.
4. There is no comparison based on job function