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A validation of object-oriented design metrics as quality indicators

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This case study concerns about the results in which suit of object-oriented design metrics were fully analyzed based on the testing and experience. Large software development process is time and resource consuming so to identify the requirements of adequate resources and for decision making, software metrics are necessary and plays an important role to identify fault prone modules. This metric suit is necessary to characterize error prone module which helps to do testing in timely and cost effective manner. Study ran on collected data of eight systems to do all accurate validations. To make ability of metric suit stronger for identifying fault prone classes, OO metric suit were empirically validated. The main purpose behind this OO metric was to evaluate that up to what extent this suit is useful to predict the probability of detecting faulty classes and this detection of fault should be good quality indicator and must be validated. Assessment of this collected data was done empirically to make metric suit a good quality indicator. They did study on OO metrics and analyzed classification results which they got during study and concluded that studied OO metrics are useful predictors of fault prone classes.so after analysis it was proved that Chidamber and Kemerer's OO metrics are very useful predictors than the traditional ones and can be a good quality indicator.

References:

Victor R. Basili, Lionel C. Briand, and Walc_elio L. Melo. A validation of object-oriented design metrics as quality indicators. IEEE Transactions on Software Engineering, 22(10):751{761, 1996.