Abstract

Object Oriented design, today, is becoming more popular in software development environment. Object oriented measurements are being used to evaluate and predict the quality of software. Because of the need of Object Oriented software and high quality demand, traditional metrics cannot be applied. One of the reasons for this is that the traditional metrics measures are generally used in the structured programming paradigm where the design structure and data structure are measured independently. But an Object Oriented metric is able to treat function and data as combined integrated object.

In this paper we have evaluated two metrics Weighted Method per Class (WMC) and
Coupling between Object Classes (CBO) of Chidamber and Kemerer metrics Suite. We have done an empirical study and tried to find out the nature of relationship of these metrics with defects. In other words, it has been investigated whether these metrics are significantly associated with defects or not. For this we have taken samples of 50 Java classes of different projects developed by the final year B. Tech students under the guidance of faculty members having 4-10 years experience in object oriented programming. We have deliberately taken different projects & tried to check if these metrics can really be reliable measurements for predicting defects when applied to inherently different projects.

Reference

- Dr Kadhim M. Breesam, “Metrics for Object Oriented design focusing on class Inheritance metrics”, 2nd International conference on dependability of computer system IEE, 2007.

Index Terms

Computer Science

Software Engineering
**Key words**

Object Oriented Paradigm  
Java