

Assessment of instrument reliability and validity on requirement reuse practices in Malaysia

ABSTRACT

Requirement reuse came as an alternative method to facilitate the requirement engineering process. It is an approach of making use of existing requirement documents in order to reduce effort requirement elicitation and analysis during software development lifecycle. There are various research works had been done on the implementation of requirement reuse and many had sought to provide a better practice of it. However, the practice of requirement reuse is still uncertain. There is a lack of study to determine the current state of requirement reuse practice in Malaysia. Therefore, an instrument is designed and developed to determine requirement reuse process, challenges, component, and its support tools. This paper describes the design of the instrument used for the survey on requirement reuse practice and the assessment of its reliability and validity. Cronbach's alpha test was used to check on its reliability meanwhile hetero-monotrait ratio (HTMT) criterion was used to check on the discriminant validity. The result from both of the tests shows the item in the questionnaire has a high level of consistency and established discriminant validity. Therefore, based on the results, there are no modifications or amendments made to the questionnaire. Hence, the developed instrument is reliable and has sufficient discriminant validity for further work.

Keyword: Requirement reuse; Requirement engineering; Survey design; Reliability test; Validity test