UML Usage In Industry In The Wellington Region

Diane Strode

Whitireia Community Polytechnic
Porirua City, New Zealand

d.strode@whitireia.ac.nz

ABSTRACT

This poster presents a proposal for research on the use of the Unified Modeling Language (UML) by the software development industry in the Wellington region. The research will be based on the results of a survey administered to software developers using object-oriented software languages to develop systems. The results may be of particular interest to tertiary and training institutes who are teaching object-oriented computer programming languages and the associated object-oriented analysis and design methodologies. Educational institutes are interested in the usefulness and desirability of UML as a topic that 'work ready' graduates should be taught as part of their knowledge of techniques used in industry, therefore the main research question to be addressed by this research is; is UML being used in industry?

Object-oriented programming languages became popular in the 1980s and this was followed by the need for appropriate modelling methods to design, describe and document these programs. The Unified Modeling Language (UML) is a modelling language that evolved in response to this need (Rumbaugh, Jacobson and Booch, 1999). This study aims to provide some data about the use of UML in object-oriented software system development in the Wellington region of New Zealand.

UML is widely discussed and quoted in the academic literature of computer science and information systems. It is also taught in academic, vocational and training institutes, and provided as a tool in both CASE systems and diagramming packages, however there is no clear indication that it is accepted and used in the object-oriented software development industry. Therefore organisations using object-oriented computer programming languages will be the subjects of this study. The primary audience of this research will be tertiary and training institutes. Bekesi (1999), in one New Zealand study, identified object-oriented analysis and design as an important skill nominated by software developers in a large Auckland firm. UML is a language taught as part of any object-oriented analysis and design course and is covered in most undergraduate computing-related courses. Most computer programming languages taught in tertiary institutes in New Zealand are object-oriented and this has influenced the decision to include object-oriented design techniques in these courses. Educational institutes are interested in its usefulness and desirability as a topic that 'work ready' graduates should be taught as part of their knowledge of techniques used in industry.

There is little available research on the uptake, usage and benefits of UML for practitioners of object-oriented languages. This positivistic research will be carried out using a survey designed to test the hypothesis under study. The survey will be emailed to recipients who are invited to respond. The gathered data will be nominal and ordinal and results will be analysed using standard non-parametric statistical methods.

Based on previous international studies of CASE usage and anecdotal evidence, a possible result will be that UML is used in an ad hoc and unplanned way across the industry. Practitioners are aware of the benefits of an object-oriented modelling language, but lack the time, training and finances, to utilise it fully.

REFERENCES

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