What are Object Oriented Beer Bottles?

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There is much that has already been written about the use of metaphors in teaching generally, with a number of writers, including McConnell (1993) using metaphors in relationship to programming.

McConnell uses a number of metaphors to describe programming what programming is all about, including the construction of buildings, where as other writers such as Bernstein (1999) uses metaphors related to tasks such as knitting. In doing this, both McConnell and Bernstein are taking people from a concept that they understand to some new concept, in the hope that this will help people understand the new concept.

The purpose of this research is to explore ways in which the words of a well known beer drinking song can be used to present a number of concepts relating to programming generally, with some concepts relating specifically to object oriented programming.

The inspiration for this research came from the following web site where the code for producing all of the verses of "99 Bottles of Beer on the Wall" can be found in 227 different programming languages. This web site was originally created by a Tim Robinson and up until the middle of March 2001 could be accessed at its original site of: http://www.ionet.net/~timtroyr/funhouse/beer.html

Since the disappearance of this site, the content has been resurrected and can now be found at the following sites:

- http://core.federated.com/~jim/99/
- http://www.cs.man.ac.uk/~pjj/beer/index.html

The research has involved the writing of a number of lab exercises for JADE programming modules and papers at Christchurch Polytechnic Institute of Technology. The lab exercises go beyond the generation of the verses of "99 Bottles of Beer", and focus on using the idea of bottles of beer on walls, in crates and in hands to illustrate common techniques and patterns in object oriented programming.

At the time of writing it appears as if the use of such ideas in lab exercises creates a level of excitement for students that is not present if the lab exercises are based on examples such as employees working in departments, or the products that appear on invoices. This has been reflected in students being more motivated to complete lab exercises.

References:

McConnell S. (1993). Code Complete. Washington: Microsoft Press

Bernstein D.R. (1999). Java, Women and the Culture of Computing. Proceedings of the 12th Annual Conference of the National Advisory Committee on Computing Qualifications,