



Evaluation of INN Module

‘Advanced Database Management’ (Level 6)

Innovation North, Faculty of Information &
Technology

Computing and Information Technologies Subject
Group

Victoria Harte, Research Officer
&

Prof Jim Stewart
Institute for Enterprise
March 2010

Contributor: Jackie Campbell

Research Report on INN Local Evaluation

Research Context

This was one of two 'local' evaluations carried out as part of applying the lessons of the problems and pitfalls of the major longitudinal study reported elsewhere (Harte and Stewart, 2010). The research design underpinning the evaluation was applied following a separate project undertaken by the researchers investigating a new approach to evaluating enterprise education curriculum in higher education (Harte & Stewart, 2010; Stewart & Harte, 2010). The approach taken to evaluate the module was designed by applying the local contextual factors that are integral to the design and delivery of the actual module. These factors are contextual factors directly relating to the individual educator, the students, the university, the university community and more importantly the subject discipline.

Evaluation Context

Key context factors influencing this evaluation included a Faculty moratorium on the use of questionnaire surveys to students, the kind of data of interest to the individual educators and the highly technical nature of the subject discipline. In relation to the last point, the module has no explicit reference to enterprise in learning outcomes or curriculum content and so it can be considered an example of implicit enterprise education (Harte and Stewart, 2009; Stewart and Harte, 2009). The Module Leader is a former Faculty Enterprise Pioneer and has a particular interest in evaluating enterprise outcomes. Her contribution was sought and provided with the result that qualitative data was valued over quantitative data for this study. This contrasted with the primarily quantitative data collected for the evaluation of the FBL Business Enterprise module. This contrast is an illustration of the different interests and needs of stakeholders in different modules and so the need for local contextual evaluation.

Methods

The researchers had a number of informal discussions with the Module Leader to familiarise themselves with the module. To support this they also undertook a high level analysis of module documents. This confirmed that enterprise outcomes are most likely to be achieved, if at all, through methods of ALT rather than the content of the modules. Primary empirical data was collected at two planned assignment tutorial support 'drop in' sessions which some but not all students attended. The module itself is an elective and that may have affected attendance. The Module leader pre-prepared two flipcharts with one of the following two questions on each;

1-What skills do you think you have learned (developed, improved?)

2-What activities helped with this?

One of the researchers attended the sessions and briefed the students on the meaning of 'enterprise' and requested the students to respond to the first question in relation to enterprise as opposed to technical skills. Following the briefing, the students were somewhat confused by the request to respond to the first question in relation to enterprise skills, due to the implicit approach. Responses were written by students on post it notes which they then stuck to the relevant flipchart. Students worked on their assignments at computer work stations during the session and wrote their responses as and when they chose. The researcher visited each student at their workstation to encourage responses and to answer any queries about the meaning of enterprise, the questions or the research project in general. Once all students had responded the researcher left the session with the flipchart and typed up all of the responses.

Results

Module design

As already indicated the module has no explicit association with enterprise. This is evident from the module documents and from discussions with the module leader. It was also evident from briefing the students and indeed from the results (see next section). Discussions with the module leader made clear that the main intention of the module teaching team is to develop enterprise skills and behaviours through using problem and enquiry based learning methods. This aim is also intended to be achieved by incorporating data and cases from organisation practice. The module teaching team did not communicate the main intention to the students at the start of the module to ensure that results of any future evaluation, this or the module teaching team's own, would not be contaminated by student expectations.

Student comments

A simple and high level content analysis of student responses on the post it notes stuck to each flipchart was undertaken by the researchers. The results are summarised below.

Skills learned

Some responses identified specific technical skills related to the module content and are all counted as 'technical skills' on the list below. The fact that some students gave such responses provided further confirmation that they were not familiar with the concept of enterprise, even after being briefed by the researcher shortly before they wrote their responses. However, this is not a negative, because this was their interpretation and they might not know how to define or describe an 'enterprise skill'. The responses which can be associated with enterprise, listed below, were highlighted in the content analysis and summed to give the following results. The numbers refer to frequency of occurrence in responses.

Research skills-4

Problem solving-3

Time management-2

Independence/independent learning-2

Confidence-1

Communication-1

Teamwork-1

Technical skills-12

How learned

Responses to the second question were analysed to determine if teaching inputs and learning methods associated with problem and enquiry based learning were mentioned by students as enabling the development of the skills they identified in response to the first question. As far as possible responses to this question were linked to responses to the first question which identified some enterprise related skills. This though was not possible in all cases and so a direct or consistent link between the two cannot be claimed. Responses indicated a measure of individual and collective independent learning which is a feature of problem and enquiry based learning methods.

Independent methods, both individual and group/collective

X-stream generally and discussion boards

reading

practical exercises

case studies

assignments

teamwork

library online

Analysis and Discussion

Some enterprise related skills were identified by some but not all students. Many students identified only technical skills. It can be said that the module did produce enterprise related outcomes but not for all students. That said, the limitations may have some bearing on why not all students identified enterprise skills (see below). Most students identified independent methods of learning and teaching as contributing to developing their skills, which in itself is an excellent outcome and seems to suggest a relationship between ALT and enterprise outcomes. Particularly in relation to those skills interpreted to be enterprising by the students. It also supports the decision of the teaching team to adopt problem and enquiry based learning as a means of developing enterprise outcomes.

Limitations

This was a small scale study which has generated very little data but nonetheless useful and interesting. The sample was also self-selected in the sense that it was just those students who turned up for the tutorial support sessions. An additional significant factor is that the prime

purpose of the session was to work on an assignment and receive guidance and support from each other and the tutor. So, the minds and attention of the respondents were on those matters rather than contributing to the research project. That also might explain the fact that some responses to the first question were in relation to technical rather than enterprise skills; those respondents did not pay much attention to the explanation of enterprise given by the researcher. Given these limitations the results can be treated only as indicative of possibilities rather than firm findings. However, to postulate on this point further as discussed above, students that did not mention enterprise skills is not to be considered a negative. The implicit nature of this approach was a key objective for the module leader and one of the aims was to enable these sorts of skills in students by challenging them and taking them out of their comfort zones. Finally, although the implicit approach to curriculum is unseen the enterprising potential in students is not and for those students who liked and enjoyed this approach to learning they no doubt will have demonstrated it in their own learning. The only difference is that some students might not recognise or have recognised that what they were doing and learning could be considered enterprising.

Conclusions

This study does suggest that there is no necessary relationship between module aims, learning outcomes or curriculum content and enterprise outcomes. Despite the limitations we can say that the module did achieve the latter for at least some students. It is entirely possible that the same is true for those students who identified technical skills as it is also possible that they paid little attention to the briefing on enterprise and so did not understand what they were being asked. In addition, had the students not had the briefing of enterprise skills etc before they were asked to put their responses on post-its, the responses may well have been different. This is obviously somewhat speculative but one wonders whether we clouded the student's thoughts. It would have been interesting to ask them the questions first as they were but then ask them again a second time in the context of the briefing about enterprise and enterprise skills. However, we realise that these statements are somewhat assumptional.

Based on the above we can also conclude that the study lends some support to the notion of 'implicit' enterprise education and that ALT pedagogy can be the means of achieving such educational outcomes. In further support of this conclusion we can say from the study that students need not be aware of the intention of developing enterprise related skills in order for those skills to be an outcome of a module.

Finally, it is apparent that the local evaluation has been of some value in this study in generating data of interest to the educator in the context of a very technical subject discipline. The limitations though also suggest that local evaluations may have some drawbacks unless they are carefully designed.