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TITLE

Evaluation of a strategy for fostering generic skills in distance education learners.

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ABSTRACT

The development of generic learning skills are a much valued and debated goal of tertiary education. The unit of study which is the subject of this research paper was developed to foster deep learning skills. This paper describes an evaluation of a strategy designed to foster generic skills among a cohort of 97 distance education learners enrolled at Southern Cross University in Lismore, NSW, Australia. The evaluation consisted of a triangulated methodology of student evaluation, marking criteria and semi structured telephone interviews. Findings indicate that there were problems in introducing a deep learning strategy because of a tendency among adult learners towards self directedness and a resistance towards adopting a deep learning strategy because of pre-existing self developed essay writing and learning strategies. Students did not universally adopt a deep strategy to learning but rather adopted it to varying degrees to suit their needs.

INTRODUCTION

This research project sought to evaluate a strategy employed to foster generic skills in undergraduate external students. The context for the evaluation was a three module unit of study 'The Future of Work', a distance education unit within the Bachelor of Social Science at Southern Cross University. In particular, the researchers were looking for evidence of a deep approach by students in this unit to learning and essay writing, demonstrated by:

- thinking and reasoning skills, such as critical, analytical and evaluative thinking;
- research skills, such as literature searching, purposeful reading, thesis building;
- written communication skills, such as coherent essay structuring and representation of arguments.

Although higher order skills have long been a valued outcome of tertiary education, a renewed emphasis upon these skills was heralded in the Higher Education Council Report *Achieving Quality*, published in October, 1992. The report identified 'generic skills, attributes and values' as the 'central achievement of higher education as a process' (p.20). However, as Clanchy and Ballard (1995) argue, the report is dogged by 'vagueness and inconsistencies' relating to the nature of those generic skills, and how they may relate to their different disciplinary contexts. Clanchy and Ballard provide a more systematic, albeit 'preliminary', analysis of higher order generic skills and group them into categories of thinking, research and communication. They argue that more work needs to be done in identifying and teaching these skills within their disciplinary contexts.

Deep and surface approaches to learning have been identified by a variety of researchers (Marton & Saljo, 1976, Entwistle & Ramsden, 1983, for example). Biggs (1989) describes deep learning as activities which maximise understanding, wide reading, discussion, theorising, linking, hypothesising. Surface approaches, on the other hand, are characterised by a focus upon the literal, the concrete, lower order skills such as rote learning, and the paring of tasks to bare essentials. In essay writing, students adopting a surface approach focus on:

quick returns that satisfy, rather than satisfy, the task demands. In writing, attention is focused during these activities on the level of ideational complexity no higher than that contained in a sentence. Sentences, thus tend to be linked in a linear sequence (eg chronological or narrative) which is inappropriate for most academic purposes (Biggs 1990-91:139).

Students in this approach are tending to engage in lower order skills such as describing, relating, ordering, and explaining, similar to what Hounsell (1984) describes as the 'essay as arrangement'. In adopting a deep approach, students engage in activities that: *integrate detail and high level ideation. In writing, the detail in an ill-set sentence can be cut-and-pasted to the appropriate context, or deleted; in both cases, the decision is embedded in high level or thematic thinking...(Biggs 1990-91:139).*

Students are here demonstrating skills more appropriate to a higher education context, such as synthesising, integrating, evaluating and thesis building.

A strategy to teach these skills in the context of undergraduate economics and accounting has been described by Parry (1989). The strategy was adapted for use in this context - the unit 'Future of Work'. The strategy was designed to impact upon the approach taken by students to learning, supporting in particular a deep approach to the development and writing of essays. By the use of this strategy, the unit developers have

sought to support these higher order activities, although it is acknowledged that other factors may impact significantly on its success, such as motivation and ability of the individual, and the teaching context as largely represented by the learning package.

In developing the learning package, the unit developers were mindful of the significance of promoting dialogue and independent thought in distance education. Questions have been raised regarding the capacity of learners to create and negotiate meanings through the traditional distance study package. Distance education materials are typically monologic. By the industrialised character of text production (Evans & Nation, 1989) and the way in which knowledge is shaped by this medium (Evans, 1989) content is conveyed to students in a form that appears fixed, finite and non-negotiable. By accident rather than design, this may direct students to surface approaches, where there is little perceived choice for students in essay writing but to re-organise and feed back the content on cue. The 'Future of Work' study package sought to find a balance between the provision of content (via selected texts and readings), the processes of evaluative and reflective questioning (through textual prompts) and disciplinary skills development (through framework with worked examples).

A final consideration is the literature around adult, lifelong and independent learning. While the attainment of disciplinary and generic skills are by no means incompatible with practice of self-directed and lifelong learning (Candy, 1991, for example), there is always some tension between adult learners' preferences for self-directedness and institutional demands and professional requirements. Although these questions were considered in the unit development process, they were not fully answered and have been subject of considerable scrutiny in this research project, as well as ongoing reflection in unit revision activities.

Research questions

This principal goal of this research project was to evaluate the use of this learning strategy as a means of encouraging deep learning and fostering generic higher order skills development in a distance education context. In particular, the following questions were central to the project:

- What learning and writing strategies have been used by students prior to encountering this study package?
- Does this learning strategy provide a satisfactory and useful learning experience for distance students?
- What factors contribute to student success or failure using the learning strategy?
- Will students use this strategy beyond the pilot package?
- Can we provide a strategy for distance education students that encourages deep learning in essay writing?

METHOD

The sample consisted of 97 students who were enrolled in the Future of Work Unit offered through the Faculty of Education Work and Training in the first semester of 1995. The students were adult, distance learners aged between 30 and 49 years. Females comprised 48.5% and males 51.5% of the sample. There were four stages in the evaluation:

Stage (1) A questionnaire was designed from preliminary unstructured telephone interviews with students and responses were sought in relation to student satisfaction, the usefulness of the deep learning strategy and prior study patterns. The questionnaire,

was mailed out to all students enrolled in the Future of Work unit in early June prior to them completing the unit.

Stage (2) A marking criteria were devised based on the work of Bloom (1956) The criteria were designed with the purpose of evaluating student performance in the following areas: knowledge, comprehension, application, analysis, synthesis, evaluation. The marking criteria were randomly applied to 67 assignments selected from the students' third assignment item.

Stage (3) A follow up semi-structured telephone interview was carried out to inform the existing data. Fifteen students were contacted at the end of September by two of the researchers who did not have direct involvement with the students. The interviews were semi-structured and took approximately 10 minutes to complete.

Stage (4) The results were analysed using SPSS 4.1 and Statview 512. Thematic analysis was carried out on the open ended responses in the questionnaire and the responses obtained from the telephone interviews.

FINDINGS

The group comprised adult learners, confident in their abilities, who were studying predominantly for professional development. In terms of the usefulness of the learning strategy to the students, whilst up to three quarters of the students found the initial thesis building process useful, support tapered away for the more complex synthesising components of the process. However the dissatisfaction seemed to be with the deep learning strategy component and its explanations as students generally found the study guide, introductory notes, module one guide, and the assignment sheet useful. In terms of students' satisfaction, while the deep learning strategy was considered to be challenging, useful and adaptable to other units for up to three quarters of the students, it was at the same time thought to be off putting as a method. There were mixed opinions from students regarding the issues of changes in approach, increased confidence and universal adoption of the deep learning strategy to all units of study. However at an individual level up to three quarters (75.8%) of the students indicated they would use the deep learning strategy at least some of the time. Learning outcomes for students indicated that overall there were differences in student performance across the areas of knowledge, comprehension, application, analysis, synthesis and evaluation. Students were more successful in demonstrating their knowledge in terms of knowing common terms, specific facts, methods and procedures and basic concepts than in the analysis process ($F=2.489$, $p < 0.05$).

DISCUSSION

What learning and writing strategies have been used by students prior to this study package?

Our results suggest that distance learners in this study developed learning and writing strategies in a trial and error manner. Hounsell's (1984) three categories of writing approaches: essay as arrangement, viewpoint and argument were identified within the strategies described by students. In describing their approach to writing, students tended more towards matters of form and structure (such as 'develop introduction, headings, subheadings, conclusions) rather than the actual processes, such as argument and thesis building, in which they might engage. This mirrors the emphasis in university 'Essay Writing Guides' where issues of product (form, referencing, use of language) override those of process. Likewise, in learning packages, there is little systematic generic skills development. The principle form of development is through feedback on essays - a source which students in this evaluation suggest is highly variable and idiosyncratic.

What factors contribute to students' failure to use this deep learning strategy?

It was evident from the open-ended responses that the students were adult learners and there was a feeling that the deep learning strategy was too prescriptive. For example one student, **S**, commented, 'I just ignored the deep learning strategy and did my own thing. I did look at it to see if it was a better way of writing and developing an argument but I found it too prescriptive and four years into my course I didn't want to change my style.'

One of the recurrent themes identified was related to the deep learning strategy being too time consuming. It was felt by students that the deep learning strategy increased their workload too much by having to focus on the process as well as the content. **M**: 'I thought the deep learning strategy should have been a separate subject. It was a lot of work....It is too difficult to concentrate on two things [content and process] at once.' Students seemingly did the unit for the content but were confronted with the process.

For some it was just too late in the study process. It would have been more useful if offered earlier in their study career. **M**: "I found it confusing and repetitive - I didn't want to change my style". Some students indicated it would have been more helpful for new learners.

For some students there was insufficient support within the materials provided to carry through the deep learning strategy. This was in terms of it lacking clarity, being too complex, and having unclear instructions. **J**: "I was really quite excited about the potential of something like this- really valuable. But my main problem was understanding it".

Factors contributing to success in using the deep learning strategy

Some students saw links with their own style and commented that they had been using a similar process for years. For some students the deep learning strategy consolidated existing skills and it was a familiar process and brought what was in the sub-conscious to the conscious by making the implicit explicit. **P**: "We use the deep learning strategy approach in nursing. It was a reinforcing principle I know [*sic*]. It is the way I've always approached writing essays. It makes sense".

For experienced learners it systematised the process which they already had in place by providing a structure, and discipline for what students already had been doing.

R: "The logical approach is better than the haphazard approach I have used in the past. In the past I have drawn on the same principles but not in a systematic and logical way".

Some less experienced students liked it because of the structure and skills development. There was strong support for the fact that it provided a structured process to work from and to a lesser extent that it assisted with interpretation and analysis of the essay question. "It is a method which encourages critical and analytical thought"; "it provides a common structure"; "it helps break the assignment down into workable parts which then form the whole"; "it enforces a logical approach to study". These comments indicate the structure helped to develop and reinforce skills needed in adopting a deep learning strategy.

Will students use this learning strategy beyond the pilot study package?

Mixed responses of students suggests the deep learning strategy will be adopted in varying degrees. There were students who liked the deep learning strategy and found it a valuable exercise because they were naturally attuned to a structured learning style. For them the deep learning strategy made the structure explicit. Another group adopted the deep learning strategy in order to meet the requirements of the assignment, but haven't continued to use it and some students rejected the deep learning strategy in total.

For others it was just too late in the study process and would have been more useful if offered earlier in their study career. Other students would like to use it again but there was mixed experience in applying it. T: "I've slipped back into my old style - more to do with time constraints and my own situation at the moment". In their ongoing studies some students described the deep learning strategy was not applicable in all disciplines as there was no consistent value placed on using the deep learning strategy by lecturers in other units.

Can we provide a strategy for students that encourages deep learning in essay writing?

There was strong support for the initial thesis building process, however there was less support for the more complex synthesising components of the process. In addition comments from students indicated that they were experienced students who had developed their own learning and writing strategies which had ensured them success in the past. They were reluctant to embrace a new learning process although some commented that their own processes were not dissimilar or had components of deep learning strategy. The literature on adult learning supports these findings that some adult learners have a need for self directedness (eg Candy, 1991) and helps to explain why the students were unwilling or unable to embrace substantial portions of the deep learning strategy.

A lack of time on the students' part is a substantial factor in distance learning that may encourage a surface approach. More than eighty per cent of the student cohort in this unit were known to be studying for professional development therefore we can assume that tertiary studies is additional to an already full professional , personal and social life style. Under these conditions it is reasonable to conclude that students may neither have the motivation nor the time to put in more effort than is required to satisfy basic requirements; ie., getting a Pass.

CONCLUSIONS

There was a certain amount of resistance on the part of adult learners towards adopting a deep learning strategy because there was a tendency for them to have already developed their own method for writing. The deep learning strategy may be more appropriate to students earlier in their studies. Findings suggest students will not universally adopt a deep strategy to learning but rather they will adopt it to varying degrees. Students were reluctant to adopt such strategies if the form was too unfamiliar and confusing, if it was apparently time consuming and if they had already established their own methods for writing. However they were more likely to embrace it if they didn't have established patterns, they could identify with it as being not too dissimilar to their own methods and if it systematised and provided a structure to their writing activities.

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