2011

Action Accounting 'Untying the Accountancy Knot

Alice Luby
Technological University Dublin, alice.luby@tudublin.ie

Follow this and additional works at: https://arrow.tudublin.ie/fellow

Part of the Higher Education Commons

Recommended Citation

Luby, Alice, "Action Accounting 'Untying the Accountancy Knot" (2011). *Teaching Fellowships*. 2.
https://arrow.tudublin.ie/fellow/2

4. Action Accounting 'Untying the Accountancy Knot'

Alice Luby
School of Marketing

Contact: Alice.Luby@dit.ie

Abstract

Action Accounting 'Untying the Accountancy Knot' is an innovative cross-faculty collaboration to develop e-learning activities to enhance and improve the learning experience of students. The cross-faculty Action Accounting project team was established in 2008 and includes accountancy lecturers from the College of Business and the College of Arts and Tourism as well as members of the Learning Support Services and the Learning Teaching & Technology Centre.

Accounting lecturers had observed that many first year students had been struggling with the accounting modules and this often resulted in high levels of examination failure and low retention rates. They also recognised the need to cater more adequately to students who have learning disorders such as dyslexia, as well as those for whom the traditional lecture environment is a barrier to learning.

The ultimate aim of Action Accounting is to deliver e-learning activities and module content with student centred learning needs as its main focus, and to make learning accountancy more effective for students and subsequently more enjoyable. To achieve this, Action Accounting will:

- enhance the student learning experience
- improve student retention
- accommodate different learning styles
- increase the variety of learning conduits and thus facilitate 'non-traditional' students.

Outline of Fellowship Project

Introduction

The Action Accounting project was initiated because it was recognised by a group of accounting lecturers that many students have difficulty with accountancy. This is partly because some students see accountancy as old, dusty and uninteresting. Others view it as a non-core module and unimportant compared to more targeted and specific modules. As a result students may not become involved or engage with the material. Often students develop unfavourable preconceived perceptions about accountancy and as a result underperforming at accountancy can become a self-fulfilling prophecy. Those who have a dislike of numerical content and lack confidence in the area become disillusioned very early in the module and disengage.

Pedagogical assumptions underpinning this project are that learners learn more effectively and efficiently when they are in control of the learning pace and that feedback is a critical part of effective learning. In addition it was agreed that active involvement is more likely to lead to more effective outcomes than passive involvement.

The Action Accounting Project agreed on a technology based approach. According to Hutchins (2001) when technology was used in their courses, students were found to:

- perform better,
- have a heightened satisfaction, and more fulfilling experiences, and
- engage in more equitable and diverse communication.

In addition, McDowall & Jackling (2006) found that 'Computer Assisted Learning programmes, introduced as part of the curriculum in accounting studies, have the potential to positively impact on

academic performance'.

This Action Accounting Project will provide an innovative and alternative approach that will enhance the student learning environment and at the same time improve the usability and accessibility of resources for dyslexic students. The team decided to find an e-learning solution in the form of electronic learning activities which could be used remotely, as an additional resource to build on the lecture experience. The e-learning activities could be accessed as frequently as the student required and at a time that suited them. Vitally, the e-learning activities must be interactive and require the student to engage rather than passive tutorials. In addition, the e-learning activities would provide immediate help, feedback and encouragement. It is also envisaged that the e-learning activities can be modified to cater for the various learning styles.

Project Aims

The ultimate aim of Action Accounting is to deliver module content in the form of interactive e-learning activities, with student-centred learning needs as its main focus, and to make learning accountancy more effective for students and subsequently more enjoyable. To achieve this, Action Accounting aimed to

- enhance the student learning experience
- improve student retention
- accommodate different learning styles
- increase the variety of learning conduits and thus facilitate 'non-traditional' students.

This project is an innovative cross-faculty collaboration to develop e-learning activities to enhance and improve the learning experience of students. By catering for individual learning styles and needs, a more engaging, student-centred approach to learning accounting will be facilitated. The Action Accounting Project fitted a number of the Fellowship strategic themes identified for 2009/2010 as indicated in Table 4.1.

Theme	First Year Curriculum	Student Engagement & Retention	Curriculum Development
Diversity	These projects aim to explore and compare different strategies to support learner engagement within first year undergraduate programmes.	Projects focus upon the use of strategies to include, engage and retain non-traditional students within existing programmes.	
e-learning	Projects aim to make use of online resources to encourage active learning and information literacy among first year students.	Projects aim to improve student retention through the use of e-learning technologies.	Projects focus on the use of e-learning technologies to engage students and motivate them to more active learning.

Table 4.1: Fellowship strategic themes identified for 2009–2010

The project specifically targets those who find the traditional lecture setting a barrier to learning as well as students with disabilities like dyslexia. Dyslexic students constitute the largest percentage of disabled students in DIT. However, many of the current traditional teaching methods fail to cater for the needs of these students. Research has shown that dyslexic students find information and communication technologies or ICTs helpful to the learning process (Rooney 2006). A key objective of this project is to create a set of accessible online interactive e-learning activities which cater for

the learning needs of dyslexic students.

Ultimately e-learning activity software will be developed with a high level of interactivity and provide students with a significant degree of control over their own learning. The format and context of the e-learning activities will provide an interesting flexible and interesting environment to learn and create an alternative for students who may struggle in the typical lecture setting.

Perceived Benefits of the Project
Discussing the effect of digital technology at a conference in Cork, Lord David Puttnam stated that it 'has fundamentally reshaped the way in which young people engage with, and make sense of society'. The Action Accounting Project aims to maximise the potential of digital technology to enhance the learning experience of those studying accounting.

The DIT has published its Strategic Plan for 2009–2011, setting out its vision for the institute and the ways in which that vision can be achieved. The document also notes that one of the chief aims of the Government with regard to higher education is to increase participation rates, with a particular focus on improving access for those from disadvantaged backgrounds, and those with disabilities. In relation to the latter group specifically, the plan is to double, by 2013, the number of students in higher education with sensory, physical and multiple disabilities. *The immediate challenge facing DIT then is in supporting its teaching staff in efficiently and effectively adapting their teaching approaches to accommodate these students and to promote an inclusive learning environment so as to ensure that they do not leave the programme early due to failure, or indeed fear of failure.*

Action Accounting will provide an additional tool that will be particularly useful for first year students who are struggling with the numeric concepts covered in accounting modules. The significant increase in numbers of disability students and access students will have put additional pressure on student support services who will be working in an environment dominated by budget cutbacks. Action Accounting will have a vital role for students who may be facing a reduced level of support due to budget cutbacks.

Action Accounting also addresses DIT's core value of being student centred and being inclusive where diversity is valued. Specific benefits for students centre around the fact that the e-learning activities can:

- accommodate different learning styles
- enhance the student learning experience
- provide an accessible tool for those struggling to cope with the course material or the traditional lecture environment
- provide a means of building confidence in a topic
- provide students with disabilities an alternative method of learning
- provide access students an additional tool to practice at their own pace and build their confidence.

The e-learning activities should be a valuable tool for students with disabilities such as dyslexia who may be unable to get maximum benefit from accounting material in its traditional form. The e-learning activities will be presented in a form suitable for dyslexic students with a significant degree of customisation to allow for different requirements for a diverse range of issues. The project team includes a learning support officer and a student with dyslexia. The e-learning activities will also be an additional resource for access students. Access students may find the third level setting challenging and may be reluctant to show if they are struggling with content in the lecture

environment. The e-learning activities will provide them the opportunity to work interactively with module content, and the hints and feedback will help build knowledge and confidence. Ultimately, the e-learning activities should provide students who are struggling the opportunity to work with module content in an alternative environment at their own pace. It should prevent early disengagement with module content and help with student retention and success levels. Potential beneficiaries of the project would be:

- students and lecturers
- disability officers
- student retention staff
- student access departments
- learning teaching and technology centres.

Action Research Approach
Methodologically, the development team took an action research approach, wherein incremental development of the final product has been influenced both by our own experiences and by student feedback. As can be seen from the project map presented below, there were a number of key stages where software samples were piloted, evaluated and modified until the ultimate solution was found. At each evaluation point, key feedback proved vital in directing the form of resources being developed.

Project Map and Timeframe

The project which commenced towards the end of 2008 has a completion target of the end of 2010 for the first suite of e-learning activities. This suite of e-learning activities covers module content for three key early components of a first year accounting syllabus. Key timelines are as follows:

Date	Activity
Nov. 2008	Sample software developed
Dec. 2008	Pilot testing and student feedback
March 2009	Sample software developed
April 2009	Pilot testing and student feedback
Nov. 2009	Revised software developed
Dec. 2009	Pilot testing and student feedback
Feb. 2010	Sample scenario drafted
March 2010	Additional scenarios drafted
April 2010	Web based solution sought
May 2010	Detailed design specification and systems requirements brief
June 2010	Agreement with WeDoWebsites
begin. Sept. 2010	Software to be delivered by designers
mid Sept. 2010	Scenarios entered and system tested
end Sept. 2010	Pilot testing
Oct. 2010	Use on modules

This suite of e-learning activities covers module content for three key early components of a first year accounting syllabus.

Key Stages
Funding from a *Learning and Teaching Award*, as well as a small grant from *NAIRTL* (the National

Academy for Integration of Research, Teaching and Learning) allowed the Action Accounting Project Team to research, design and develop some prototype software demonstrating e-learning activities, and the subsequent pilot testing of these activities with students. The two initial software samples were developed in *Flash*. The first pilot highlighted the need to widen the project scope to meet the needs of disability students when a dyslexic student indicated that she couldn't read the text because the font appeared distorted.

From early pilots, the team outlined a robust suite of e-learning activities aimed at engaging and supporting these struggling students through their first year accountancy module and began developing an additional prototype. They also identified key issues for presentation and navigation.

In preparing software samples for the third pilot the team used *Dreamweaver* so the information could be presented in more complete setting, along with using *Articulate* in an attempt to overcome some of the problematic navigation issues previously encountered with *Flash*. However, the pilot testing still indicated issues with usability, navigation and setting. It was felt the design of professional e-learning activities, to the level the team required, was beyond the skills of the team and in-house development. However, the team was concerned that getting a professionally developed solution would be costly and that it may not be possible for the team to build additional scenarios and activities themselves. All student feedback had required multiple scenarios and activities for each topic to allow them to reinforce their learning.

A brief was prepared and a company (*wedowebsites.ie*) provided an ideal solution. Additional funding from LTTC and contributions from several Heads of School have been instrumental in facilitating the professional solution. The e-learning activities will be developed from an extensive MySQL database of variables from which a wide variety of accounting scenarios can be built and made available to the students; these will be presented on a web-based platform and will be fully interactive. Importantly, members of the Action Accounting Project Team, and other lecturers, will be able to maintain and add additional scenarios and activities without additional professional development. The project will have a student-friendly, web-based learning set of e-learning activities running on a MySQL database which will allow a variety of scenarios and activities to be generated for three key early topics in accounting.

Project Evaluation Process and Lessons Learned

It is important to point out that the project is ongoing and has not been completed; therefore the evaluation process only covers the research process and project to date. It is not possible to evaluate the success of the project as yet or to establish whether the aims were achieved. However, lessons have been learned already.

The action research approach adopted by the project was beneficial because at each stage, the evaluation highlighted key issues that the project had to consider and overcome. There were three separate software pilots and evaluations before the scenarios and final brief were prepared. From the onset student feedback on the broad idea was quite positive and it was seen as having good potential. However, some negative feedback on the 'technology' was encountered.

Important feedback included:
- The first software sample piloted could not be read by a dyslexic student who was randomly selected to test the software. This in effect drew awareness towards a significant group of students who should be catered for and the project moved from its initial aim and indeed the aim of the project was widened. *The way and the manner in which the material is presented can have a significant impact on the student's ability to learn from the resource.*

- It became obvious that we were not reaching our target group as some struggled with the prototype. It was found that a significant number of students who lacked confidence with numbers also lacked confidence with technology. They found that the navigation was not intuitive and that it was off-putting. *Therefore, it was accepted that navigation and ease of use was vitally important, particularly for the target groups.*
- Students wanted the software to be different to tests and on-line assessments and early pilots were not considered to be interesting and appeared too like a test. *The scenarios need to be realistic and creatively presented with lots of hints and feedback.*
- Students indicated that they wanted lots of options to try similar concepts over and over again and to be provided with feedback and tips if they were stuck. *Therefore, it was accepted that the software needs to have a number of scenarios with plenty of transactions.*
- Students indicated the need to have the activities more integrated and suggested that the setting/context of each online activity be shown more clearly. *This could be achieved perhaps by providing the aims and overview of each scenario and transaction.*

Future Plans

There is plenty of scope for further development of the e-learning activities. This suite of activities only covers three early topics from a first year financial accounting syllabus. There is a need to develop subsequent e-learning activities for the remaining sections of the syllabus. In addition a complete set of e-learning activities could be developed for management accounting. Furthermore, the approach could be modified to provide business relevant scenarios for more advanced accounting syllabi including Financial Reporting and Advanced Management Accounting.

Fellowship Impact and Recommendations

The teaching fellowship has positively impacted the Action Accounting Project. The fellowship provided the opportunity for one of the team members to drive the development of the third software sample and to pilot the approach. It also provided the fellow with the time to prepare the very detailed brief that was needed for the professional development of the e-learning activities. In addition, new ideas for how the project could be presented and refined were obtained from other teaching fellows. The teaching fellowship does draw attention to a project and help elevate the importance of that project in the mind of the fellow.

However, as the project is not complete, it is difficult to make specific recommendations at Institute level. It is too early to establish how the project impacted the student learning experience, retention, assessment success, and catering for non-traditional students.

References

Hutchins, H.M. (2001) Enhancing the Business Communication Course through WebCT. *Business Communication Quarterly*, 64(3), 93.

McDowall, T. & Jackling, B. (2006) The Impact of Computer-Assisted Learning on Academic Grades: An Assessment of Students' Perceptions. *Accounting Education*, 15(4) 377–389.

Puttnam, D. Lord (2010) *Education and the Digital Society*. IIEA Conference, Cork.

Rooney, P. (2006) Learning Technologies and Dyslexic Students at Third Level. Paper presented at Fourth Annual Conference on Teaching and Learning in Higher Education, National University of

Ireland Galway, June 2006.