

Is a Blended Learning Approach Suitable for Mature, Part-time Finance Students?

Julia Burgess

University of Winchester, UK

Julia.Burgess@winchester.ac.uk

Abstract: Blended learning is a pedagogy that is sometimes heralded as the answer to some of the problems which part time students face. Creating a module for part-time students with some e-learning elements is time consuming and resource intensive. Therefore it must be demonstrated that the investment in such innovations will benefit the students and create wider learning opportunities in the most effective manner. A small investigation has been conducted which has looked at the learning needs of part-time finance students at The University of Winchester to see whether a blended approach would have benefited their studies. The results of this investigation have been used as the basis for developing the course to allow a more blended style. This paper attempts to outline how the course was designed and to do a preliminary analysis of the use of blended learning for part-time mature finance students.

Keywords: Blended-learning, finance, part-time, mature-student, e-learning

1. Introduction

The Business Management B.Sc. Programme at the University of Winchester contains a third year Financial Management module which is taught to a full time group of students and another part-time group at a different campus. The full time student group is made up of students who fit the younger profile of UK undergraduates; the part-time group is made up of mature students. As part of a policy of widening participation such mature students, who hold a merit profile Higher National Diploma (HND), achieve a degree within two years on a part-time basis. These Business and Management Bachelor of Arts (BAMBA) students undertake the study of modules sequentially, instead of concurrently. The Financial Management module is delivered to these part-time students in six lectures and two whole day intensive sessions. There are two major problems. Firstly, part-time students are subject to many distractions from work and family commitments. Secondly, the study of Financial Management, although very useful to students in their commercial careers, is often considered to be a difficult and dull subject. For example, Arthur et al (2004) reported that many students found that the initial accounting knowledge set to be both boring and difficult to assimilate and as a result, many students abandoned their accounting studies at this early point. However, Financial Management is a mathematical, precise and bounded subject lending itself to the use of information technology. It is potentially an ideal subject for the imaginative use of a blended learning approach to motivate and educate part-time mature students working in an online environment.

The term 'blended learning' covers a wide range of approaches. Grey (2006), summarized the rationale for using a blended learning approach as the selection of an effective and proven learning model, capitalizing on the strengths and benefits of technology-based training as well as classic self-study, classroom, and on-the-job instruction in a 'mix and match' format tailored to the specific training needs of each organization. Macdonald (2006) states that 'blended learning' is associated with the introduction of online media into a course or program, whilst recognizing the benefits of retaining face to face contact with students. Grey (2006) states that blended learning combines e-learning (*using a mix of IT based learning resources*) with a variety of other delivery methods to provide for a superior learning experience. Santy and Smith (2007) stress that e-learning techniques can be 'networked' via computer connection using an institutional virtual learning environment (VLE) or more likely the Internet to enhance knowledge, skills and performance. A short study investigated the learning needs of part-time mature finance students at the University of Winchester and concluded that such a 'blended learning' approach with the aim of providing a 'superior learning experience' using a mix of IT based resources coupled to continued 'face to face' instruction' could be of benefit.

This development coincided with the timely availability of the Modular Object-Oriented Dynamic Learning Environment (Moodle) e-learning platform. This paper outlines how the development of the 'blended learning' approach to a Financial Management module was carried out and provides a preliminary analysis of effectiveness of a 'blended learning' approach in meeting the needs of part-time mature finance students.

2. The rationale for a blended learning development at the University of Winchester

The major institutional rationale can be seen in the context of the University of Winchester's strategic objective to focus on the formative effects of challenging and supported higher education and to prepare individuals for employment and their subsequent lives. For part-time students at the University of Winchester, it has been found that trying to achieve this laudable objective can be degraded by lack of study time and the trade-off with 'social' or 'family' time. As found during surveys of BAMBA part-time students, other factors such as access to resources, lack of interaction with other students and travel time can also have a serious impact on part-time students. Internal curriculum design work has also shown that part-time Financial Management students need better cognitive and enabling skills in the areas of self-directed research, e-literacy skills and use of computerized spreadsheets as well as exposure to commercial accounting software to improve employability. There is also some external evidence from several UK universities that the use of blended learning techniques also helped them recruit and retain 'full time' students, who were really 'part-time' because of work commitments (Sharpe et al, 2006). Therefore, there are some compelling institutional reasons to develop the Financial Management module to support a diverse group of mature part-time students by meeting individual needs and provide for improved student skill development, in addition to any benefits to be gained by successful study of the subject of Financial Management.

The course specific rationale for the introduction of a blended learning approach to the Financial Management module is based on the need to address specific issues identified during the 2005-6 semesters which were:

- The assignment and examination marks of part-time students were notably lower than those achieved by the full-time students.
- Many part-time students requested extension concessions for their assignment and the examination due to work/ personal life problems.
- There were a number of part-time students who missed classes because of commitments and who were unhappy about having to do so.
- Part-time students expressed real anxiety about the difficulty of studying Financial Management and that they lacked the time to study with the intensity that the module guidelines required.

Blended learning research has shown that its use on specific courses generates favorable responses from students. Hall (2006) found that e-learning engagements can have a positive impact on the learning experience. Many of the case studies which have examined the effect of blended learning on the student learning experience note that the 'virtual learning environment is more effective, efficient and satisfying than the traditional learning situation' (Koskela et al, 2005, P.21) where there has been the ability to ask questions and evaluate their own learning. The literature also supports the idea that a more blended approach to learning may better suit mature part-time students. For example Hart et al (2005) examined using blended learning techniques in nurse training and found that it allowed these mature part-time students a more flexible and attractive route for learning. Blended learning is about providing a superior learning experience. Therefore, its adoption for part-time students must address their specific problems associated with lack of study time and the trade off of 'study' time with 'social' and 'family' time. A blended learning approach with access to online resources was seen as being flexible enough to cope with students' absences and have a sufficiently rich content to remove students' anxieties about the scope and level of the work.

The pedagogic rationale for the introduction of blended learning are summarized by Mayes and de Freitas (2004) cited in Sharpe (2006) which organized blended learning styles into 'Associative', 'Constructivist' (*individual/cognitive or social*) and 'Situative' models. Firstly, the associative learning model proposes that students learn by being able to relate concepts in a chain of reasoning. Computer quizzes are thought to aid associative learning as they are based on stimulus-response conditioning. It is proposed that by undertaking computer quizzes repeatedly, reproduction and recall are aided for example when such techniques were employed at the University of Dundee, the pass rate for a chemistry course increased significantly. Secondly, the constructivist learning model proposes that students learn through the assembly of ideas and skills through interaction, experimentation and feedback. In a constructivist model of blended learning such learning is enabled by allowing discussions, collaboration and social interaction. However, the implementation of a constructivist approach to learning can be varied. When discussion boards were used in a University of the West of England Nursing Module, it was found that students were reluctant to criticize other peoples work and no high level of constructionist learning was apparent. These were also the findings in a case study which examined the use of on-line 'chat' facilities. It was found that students did not use the forums in the way that was intended, predominantly using as a 'fun' forum and were reluctant to use it as a

learning tool because they were aware that many other students may not be using it (Kirkpatrick, 2005). More positively, in an attempt to use online games to teach data base design based on problem base/constructionist pedagogy, it was found that the drop out rate for the course was reduced and the overall average mark for the course improved (Connolly et al, 2006). Thirdly, the situative learning model proposes that students learn through the participation in communities using observation, mentoring and problem solving. This model is perhaps more appropriate for post graduate and professional work (Sharpe et al 2006).

During this period the University of Winchester was starting to introduce a new VLE based on the Moodle Course Management System (CMS) which is widely used. Moodle is described as supporting a 'social constructionist pedagogy' (Rice, 2006, P.9) where the style of learning is highly interactive and 'emphasizes that learners (*and not just teachers*) can organize and contribute to the educational experience in many ways. Moodle's features reflect this in various design aspects, such as 'making it possible for students to comment on entries in a database (*or even to contribute entries themselves*), or to work collaboratively' (Wikipedia, 2007). This philosophy 'believes that people learn best when they interact with the learning material, construct new material from others and interact with other students about the material . . . the difference between a traditional class and the social constructionist philosophy is the difference between a lecture and a discussion' (Rice, 2006, P. 9).

3. Using Moodle

The availability of Moodle provided the opportunity to develop a resource package for the part time mature Financial Management students that would use a range of blended learning tools as standard components within Moodle. The aim was to allow these students a more varied learning experience, offer greater resource access to part-time students and introduce pedagogic changes to the Financial Management module to support wider skills development. The Financial Management module was modeled in Moodle using the calendar features and where the course resources would be stored in a structured manner coupled to new online links for further research. The three main Moodle tools selected as the basis for pedagogic improvements were quizzes, wikis and forums. It was decided that:

1. The quizzes would be made up from a new extensive question bank which will form the basis for the multiple choice questions which are of the same type as Section A of the module examination. Quizzes will be used as a revision tool at the end of every major topic, but also as a guide for the lecturer who can look at the results of the quiz and analyze them to see if there are any topics that need to be revised.
2. The wikis would be used to allow students to construct their own meaningful definitions store covering the major themes/models covered in each topic. It will also direct them to carry out extra reading and research to be shared amongst the group and provide a useful tool for discussion and revision purposes. The use of wikis was designed to shift the emphasis from tutor delivery, to students researching and verbalizing their own meanings, which would then be assessed both by the tutor and other students.
3. The Financial Management Module forum would provide the ability for students to share ideas, discuss issues and ask questions to the group. The plan was for the lecturer to check this regularly to identify and solve any issues that may arise.

4. Defining the dimensions of the blended learning development

Sharpe et al (2006) saw that the lack of formal definition for 'blended learning' as one of its advantages. Instead of providing a precise definition of blended learning, a set of eight generic defining dimensions were proposed and it provides a systematic way of describing and positioning any implementation of blended learning. Using this dimensions approach, the differences between the original traditional Financial Management Module and the developed blended learning based module are shown at Table 1.

Table 1: Financial management module (University of Winchester) blended learning dimensions (After Sharpe et al (2006))

Blended Learning Dimensions	Original Traditional Teaching Approach	Target Blended Learning Approach
Delivery Different modes (face to face and distance education)	Face to face classroom instruction of theory and methods.	Face to face classroom instruction maintained, but supported with IT based resources. Resource package developed in Moodle (wikis, quizzes, journals, forums) PowerPoint and Word documents covering course material. Reference list now included. (Delivery Developed)
Technology Mixtures of (web based) technologies	Use of the VLE. Static course notes and PowerPoint presentations available.	Use of existing VLE and Moodle to post structured interactive material enriched with static notes, papers, Internet links and PowerPoint material. Students have started to use online. (Developed – but awaits full Moodle implementation by the University)
Chronology Synchronous and asynchronous interventions	Formal structured synchronous presentation of material.	Formal structured synchronous presentation of material. Retain a chronology Presentation method has continued to provide stable organized core of learning materials for set student attendance periods. (Developed)
Locus Practice based vs. class-room based learning	Classroom based learning using worksheet and practice questions.	Classroom/IT suite based using worksheets and IT based interactive questions and tools. New worksheets developed and presented using Moodle. Question Item Bank now included. Interactive worksheets under development. Allows constructive breaks with formal lectures and where students can carry on in their own time things they started in class. (Under Development)
Roles Multi-disciplinary or professional groupings	BAMA students only	No change.
Pedagogy Different pedagogical approaches	Limited pedagogic approach with no matching to the problems of mature part-time students.	Attempting to match pedagogic approach to mature part time students All material is online Interactive tests with results can be carried in students own time
Focus Acknowledging different aims	Singular focused aim of passing examination.	Dual aim passing examination, wider interest in the subject and improving IT skills (Improving IT skills still underdevelopment)
Direction Tutor-director vs autonomous or learner-directed learning	Tutor led programme.	Tutor led programme, but increased emphasis on personal research and sharing/reviewing information with other students using IT tools. (Under development)

5. The learning and teaching development strategy

Salmon (2003) provides a 5 stage model for the design and implementation of learning and teaching online. It proposes the creation of a multi-stage environment with increasing levels of student interaction at each stage. Each stage requires participants to master certain technical skills and calls for different e-moderating skills. This model is useful in structuring an approach to blended learning and has been adopted a basis for designing this case study. The 5 Stage Model assumes much intensive work at the beginning of a period of study making sure students are happy with the various media. Thomas (2007) outlined some of the factors that are involved with reaching the higher Salmon model stages and these are:

- Use of regular meetings.
- Rapid movement through the socialization stages.

- Regular participation.
- Agreed success criteria and evaluation.
- Model of teaching and learning online.

The 5 stage development model was used to provide a framework for an operating approach using Moodle. The plan identified the different IT based resources to be used each week alongside traditional face to face teaching. The implementation concept for the blended learning module Financial Management module was based on the 5 stage Model and is summarized at Table 2.

Table 2: Financial management module blended learning: teaching and learning strategy (after Salmon, 2003)

Learning Stages	Blended Learning Implementation Concept
<p><u>Stage One: Access and Motivation</u> Making sure that individuals have access to online materials and have ability to participate online</p>	<p>First lecture. Students are shown the Moodle Home Page and the different resources open to them. Students given their passwords and user names. Students start using quizzes.</p>
<p><u>Stage Two: Online Socializing</u> Participants establish online identities, interacting with others</p>	<p>The students use Moodle to provide an interesting change of resources from the traditional teaching. The students work in small groups to create wiki definitions for topics that have been discussed within class. At the end of the workshop the entire class discusses the Wikis.</p>
<p><u>Stage Three: Information Exchange</u> Relevant information for the course being passed in between students</p>	<p>Students discuss problems online with tutor and other students.</p>
<p><u>Stage Four: Knowledge Construction</u> Social collaboration and class discussions</p>	<p>Moodle used more intensively as student wish to have more access to resources and are becoming more aware of the imposing assignment and examination.</p>
<p><u>Stage Five: Development</u> Participants look for more benefits from the system to help achieve personal goals</p>	<p>It is unlikely that the students will reach this stage within the module due to the short time frame but it provided an introduction to blended learning for the students. The majority has modules to undertake next year and so they may reach Stage 5 later. True knowledge constructions are very difficult to achieve in any environment and is particularly hard online (Salmon, 2003).</p>

Table 3 illustrates the Financial Management module Implementation Plan which follows the teaching and learning strategy of the 5 Stage Model. The Implementation Plan shows how topics of shareholder value, investment appraisal and business finance are distributed as themes through the module and how Moodle is to be used at each formal stage. The Implementation Plan identifies the different IT based resources to be used each week alongside traditional face to face teaching and students' own online studies.

6. Evaluation and findings of the case study

This Case Study has provided the opportunity to reflect on current practice and the pedagogic reasons for the design and presentation of a module for an important subject which students find difficult and dislike. It has also provided an opportunity to introduce a blended learning approach and to start to determine its effectiveness. Unfortunately, the student cohorts are small at 10 students each and the module is only repeated on an annual basis. This frequency and low population makes it difficult to provide objective measures to evaluate the effectiveness of the blended learning approach however the findings so far are:

6.1 Impact of blended learning approach on the teaching and learning issues

The main driver for the introduction of a blended learning approach had been that the assignment and examination marks of part-time students were notably lower than those achieved by the full-time students. The first results from the blended learning approach have shown that marks from assessments for the part-time students are now on average about 8% higher.

Table 3: Financial module blended learning: teaching and learning strategy implementation summary (*after Salmon, 2003*)

Financial Management Module Formal Study Periods	Teaching & Learning Strategy Stages	Moodle Based Work	Student Assessment
Formal Period 1 (3 hours) Introduction to Financial Management	Stage 1 Access & Motivation	Access & Options Concepts of Wikis	
Formal Period 2 (3 hours) Shareholder Value Analysis	Stage 2 (Initial) Online Socialization	Develop 'Shareholder Value' Wiki set Use of online quizzes Use Worksheets	Moodle Online quiz 'Shareholder Value'
Formal Period 3 (6 hours) Investment Appraisal	Stage 2 Online Socialization Stage 3 Information Exchange	Use Moodle Review Wikis Use Worksheets Start 'Investment Appraisal' Wiki set Use online forums Use information exchange	
Formal Period 4 (3 hours) Investment Appraisal		Use Worksheets Finish 'Investment Appraisal' Wiki set	Moodle Online quiz 'Investment Appraisal'
Formal Period 5 (3 hours) Business Finance – Sources of Finance	Stage 4 Knowledge Construction	Use Worksheets Start 'Business Finance' Wiki set	
Formal Period 6 (3 hours) Business Finance – Cost of Capital		Use Worksheets	
Formal Period 7 (6 hours) Business Finance – Capital Structure Debate		Use Worksheets Finish 'Business Finance' Wiki set	Moodle Online Quiz 'Business Finance'
Formal Period 8 (3 hours) Revision	Stage 5 Development	Use Worksheets	Online Quizzes BS3906 Financial Management Examination

Many part-time students had previously requested extension concessions for their assignment and the examination due to work/personal life problems. 5 students (50%) requested extensions in the previous conventional course, where as only 1 student asked for the concession following the blended learning course. There were a number of part-time students who missed classes because of commitments and who were unhappy about having to do so. Part-time students still miss classes – but the anecdotal evidence is that students are now less anxious, because they know all the course material and self assessment work are available in a structured way via Moodle. Part-time students expressed anxiety about the difficulty of studying Financial Management and that they lacked the time to study with the intensity that the module guidelines required. Unfortunately part-time students, although now less anxious about the Financial Management module, are still concerned about its intensity and still lack confidence about the mathematical components.

6.2 Teaching and learning strategy

It was a quick and easy exercise to establish the structure of the blended learning course in Moodle according to the selected teaching and learning strategy following the Salmon 5 Stage Model. This model proved to be a useful guide to establishing a positive student response to the blended learning approach and to providing a target development structure for the students. Students worked through the planned Stages 1-4 efficiently and within the periods as planned. As identified by Thomas (2007), regular meetings (sessions), rapid movement through the socialization stages, regular participation, agreed success criteria and

evaluation, and a clear model of teaching and learning online contributed to the early success of the blended learning approach for the revised Financial Management module. However, as predicted the Financial Management module is not of sufficient length or diversity for students to migrate to the planned Stage 5: Development, where the emphasis is on achieving personal goals. However, the students are now well prepared for other modules which will use blended learning approaches later in their course.

6.3 Using Moodle

Students liked the structure and availability of Moodle. They found the quizzes with immediate feedback to be effective and motivating. In general, the students wanted more quiz material and access to more online links. However, like Kirkpatrick (2006), it was found there was poor take up of the online ‘public’ forum facility. While Stage 3 of the Learning and Teaching Strategy was focused on information exchange, students wanted to take individual email addresses, so they could email each other privately. Additionally, the tutor was still receiving individual emails concerning queries, rather than via the forum. The reasons for this are unclear and it may be that better explanation of the forum facility and the restriction in the use of email with the tutor might provide some improvement.

6.4 Evaluation questionnaire

It was found that during the blended learning courses students started to use the Internet at home and work to support their studies with a dramatic shift to the use of the University’s VLE and Moodle. Whereas 50% of students had previously reported a low level of IT knowledge during the conventional course, at the end of the blended learning course most students reported a ‘medium’ or higher level of IT knowledge and skills. There was also an apparent shift in the preferences of students towards using various learning methods. Because of the low numbers of students involved some care must be taken in interpreting these results, however Table 4 shows that the new methods were received favorably. The dislike of using online discussion forums needs further investigation.

Table 4: BAMBA part-time students teaching/learning methods preferences (Not all respondents completed all lines in their evaluation questionnaires)

Usage	Methods	Prefer	Satisfactory	Dislike
Methods Still Used	Classroom Discussions	60%	30%	10%
	Directed Reading	30%	60%	
	Essay Writing	40%	60%	
	Group Work	70%	20%	10%
	Individual Tutorials	50%	10%	20%
	Lectures	80%	20%	
	Self Study - Text books	20%	70%	10%
	Self Study - Worksheets	30%	70%	
Recently Introduced Methods	Computer Based Exercises	60%	30%	
	Links to other websites and further reading	40%	30%	
	On-line discussion forums	20%	40%	30%
	Project work instead of examinations	50%	40%	
	Self study using the VLE and Moodle	50%	40%	
Possible Future Methods	Computer based assessments	30%	40%	
	Developing financial models in a spreadsheet	50%	20%	20%
	Self study using computer financial exercises	40%	30%	10%
	Seminars (selected students present topics)	50%	40%	
	Simulations using financial models	20%	70%	
	The use of pre-course reading material	10%	80%	
	Use of distance learning materials	20%	60%	10%
	Use of real problems from the workplace	50%	40%	
	Using computer based learning packages	10%	50%	20%
Work-based and Experience Learning	20%	50%	20%	

Overall, the blended learning approach described in this paper has had some success in managing the issues of part-time students studying a subject which is perceived to be difficult. This success was supported

by the timely availability of Moodle, which provided a sound platform for the development and the adoption of a teaching and learning strategy for clear direction and an achievable target.

References

- Arthur, A., Bebbington, J., Molyneaux, A., Roberts, C. and Strang, C. (2004), *A pedagogic Assessment of the Re- design of Accounting Education*, University of Aberdeen Higher Education Academy, available at <http://www.business.heacademy.ac.uk/resources/reflect/conf/2004/arthur>.
- Connolly, T., Stansfield, M. McLellan, E., (2006) "Using an Online Games Based Learning Approach to Teach Database Design Concepts", *The Electronic Journal of e-Learning*, Vol. 4 No. 1, pp 103-110 available at <http://www.ejel.org>.
- Grey, C. (2006), "Blended Learning: Why Everything Old Is New Again—But Better" available at <http://www.learningcircuits.org/2006/March/gray.htm>.
- Hall, R. (2006), "Delivering what students say they want on line: towards the academic participation in the enfranchisement of learners", *Electronic Journal of e-Learning*, Vol. 4 No. 1 pp. 25-32 available at <http://www.ejel.org>.
- Hart, M., Burgess, J.W. and Betts, H., (2005), "The role of e-learning in accelerating part-time student progression", Paper presented at the Fourth European Conference on e-Learning, Winchester.
- Kirkpatrick, G. (2005), Online 'chat' facilities as pedagogic tools a case study, The Higher Education Academy and SAGE Publishing.
- Koskela, M., Kiltti, P., Vipola, I. and Tervonen, J., (2005) "Suitability of a virtual learning environment for higher education", *Electronic Journal of e-Learning*, Vol. 3 No.1, pp 21- 30 available at <http://www.ejel.org>.
- Macdonald, J. (2006), *Blended Learning and Online Tutoring - A good practice Guide*. Gower Publishing Ltd, Aldershot.
- Rice, W.H. (2006), *Moodle E- Learning Course Development*, PACKT Publishing, Birmingham.
- Salmon, (2003), *e-Moderating - The key to Teaching and Learning Online*, 2nd.Ed., Taylor and Francis Books Ltd.
- Santy, J. and Smith, I. (2007) *Being an E-Learner in Health and Social Care – A student's guide*, Routledge, Abingdon, UK.
- Sharpe, R., Benfield, G., Roberts, G. and Francis, R., (2006) "The undergraduate experience of blended e-learning: a review of UK literature and practice", Higher Education Academy Oct 2006 available at <http://www/ics.heacademy.ac.uk>.
- Thomas, D. (2007) "Continued professional development (CPD) through dialogue online", MirandaNet Braided Learning E- Journal available at www.mirandanet.ac.uk.
- Wikipedia, (2007), "Moodle" available at <http://en.Wikipedia/wiki> (accessed 8 May 2007)