

SOLE Report

Further Education Studies



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May 2005

Funded by Learning and Teaching Support Network & JISC

Website: <http://sole.ilrt.bris.ac.uk/>

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Acknowledgements

We would like to thank the two FE colleges for their agreement and participation in these case studies and all the staff and students who participated in the study. Particular thanks go to the two lecturers involved for their time, and friendly help and support.

Executive Summary

This is the summary of the FE report, which analyses the results of a study of post 16 courses (including A level, AS level and National diploma courses) conducted during the Autumn term 2003 and Summer term 2004. The two case studies took place in two different UK FE colleges, both of which use Learnwise as their virtual learning environment software. These 2 case studies form part of the Students Online Learning Experiences (SOLE) project.

Introduction

SOLE is a project funded by the Higher Education Funding Council for England (HEFCE) via the [Learning and Teaching Support Network \(LTSN – now HE Academy\)](#) Tranche 2 initiative and the [Joint Information Systems Committee \(JISC\)](#) to undertake an independent evaluation of students' usage of virtual learning environments (VLEs) in higher and further education. The purpose of the study is to undertake some detailed case studies in FE institutions and to pilot the evaluation methodology in Further Education.

Methodology

The methodology of the study was based upon the evaluation framework set out in the handbook for learner-centered evaluation of computer facilitated learning projects in higher education ([Philips et al., 2000](#)) with several aspects of the research drawing on the Critical Incident Technique pioneered by Lockwood ([Gilbert and Lockwood, 1999](#)). The approach is designed to provide an in-depth set of case studies based on course units across a range of subjects, with a wide range of data and collection methods.

The following main primary data gathering tools were used:

- Student questionnaires (two - one at the start of the unit and one at the end)
- Student diaries (two – one in week 3 and one two weeks before the end of the unit)
- Individual student interviews (at the end of the unit)
- Lecturer interviews (two – one at the start of the unit and one at the end).

Note: These two cases studies are presented together in this report but they should not be seen as directly comparable, in particular the approaches of the lecturers and views of the students have not been compared or their worth judged. They are distinct case studies with different populations and purposes and any comparative data (ie data presented together) should be viewed as a matter of contrast and interest only.

Students' profile

Case study 1 consisted of 2 parallel classes comprising 56 Psychology students at AS level studying at an FE college in the west of England. Case study 2 was a class of 13 students from either Art and Design or Fashion and Clothing National Diploma courses at an FE college in South Wales.

59 students out of a potential 69 students from both case studies completed Questionnaire 1 which included profile questions on gender, age, first language, and country of residence for secondary education. The casestudies were very similar in terms of country of education and first language, with slightly more under 18s in the first study and a large percentage of females in the second study. See figure A below for a breakdown of participant profiles.

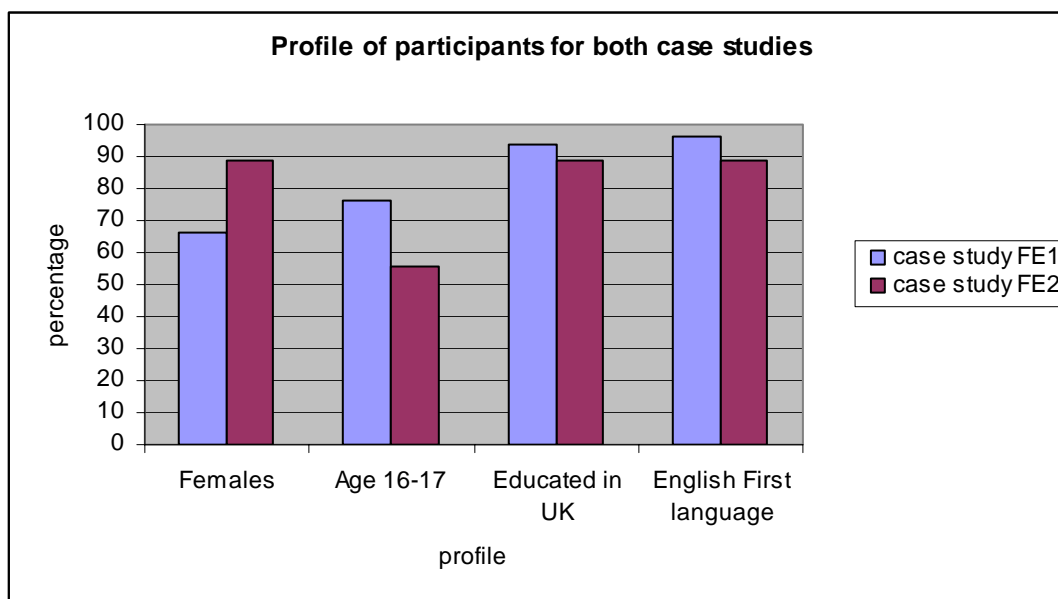


Figure A: Percentage profile of participants for both case studies

Learning models

The two case studies presented different learning models, although both intended to make students more independent learners, encouraged the active participation of the students and operated within a broadly constructivist framework. In Case Study 1, the lecturer implemented group learning, using a classroom-based interactive whiteboard, peer learning using the Learnwise discussion forum and web chat supported by the lecturer. The VLE was also used to support students with quizzes and course notes. In Case Study 2, the lecturer encouraged students' independent learning by doing research and experimentation, using the whiteboard and group work; the VLE was used primarily for access to resources such as PowerPoint presentations, course materials and the Internet.

Use of Learnwise

Only part of the learning models for both case studies were translated to the online environment. In both case studies, the VLE were used in the classroom or on campus only, with the lecturers on site most of the time. Online communication was used in Case Study 1, in Case Study 2, the VLE was used for access to course learning material as well as the Internet and PowerPoint. An interactive whiteboard was used in both case studies as a supplement to the VLE and as a classroom tool.

Lecturer, VLE, Working online positive motivator

Help and support from lecturers, the VLE and working online were found to be positive motivators for both case studies, and many students commented on the usefulness and motivating effect of having unit resources, and quizzes available in the VLE. Technology issues had a negative effect towards the motivation of students from both case studies. Communication online and personal needs were also positive factors motivating students from Case Study 1 while there was no reported influence from any of the factors for students from Case Study 2.

Motivation and confidence levels over time

In both studies, general motivation levels stayed more or less constant, comparing the beginning and end of the term, however students from Case Study 1 became significantly more confident over using the VLE and the subject over the time.

Issues of roles and authority

Both lecturers intended to place students more at the centre of learning and to support students to become independent learners. They saw themselves in the role of facilitator, or between a guide and a facilitator. However in both studies, whilst students were taking more responsibility for their own study, they consistently reported lecturers as having a strong leadership and expert role and wer

motivated primarily by help and advice from the lecturer, though fellow students were also reported as a source of help and advice.

Support gaps

Student access to the VLE was limited to within lessons or on campus in both case studies. Students who had no experience of using a computer or the Internet needed extra support in using Learnwise and in building their confidence in using it. Student support and training in both studies were underdeveloped.

Both colleges had a unit or staff providing technical support and staff development for teachers wanting to develop the use of VLE in both studies and the lecturers in these 2 studies were confident in their use of the VLE.

1. Introduction

The following two case studies are focussed on the use of VLEs in Further Education (FE). These complemented the Higher Education (HE) case studies undertaken at earlier stage of the SOLE project. The main aim of the case studies is to explore student online learning experiences using a holistic approach that draws on both qualitative and quantitative methods of data collection. In addition, we aimed to pilot the evaluation methodology in Further Education. Both case studies are based upon full time programmes at FE colleges.

1.1 Purpose of the study

The SOLE (Students' Online Learning Experiences) study undertook an independent evaluation of students' usage of virtual learning environments (VLEs) in higher and further education. The purpose of the study is to draw out the effectiveness of VLEs in supporting different subject areas, different national agendas (such as that of widening participation) and student learning in general.

SOLE was funded by the Higher Education Funding Council for England (HEFCE) through the Learning and Teaching Support Network (now HE Academy) and the Joint Information Systems Committee (JISC) which supports both higher and further education.

1.2 Background to the study

Virtual learning environments and Further Education

The UK Joint Information Systems Committee (JISC), which defines a VLE as 'the component(s) within an MLE [managed learning environment] that provides the 'online' interactions of various kinds, which can take place between learners and lecturers, including online learning.' (JISC, 2002). The potential of VLEs to support new ways of learning and to support the increasing heterogeneity of the student cohort is widely recognised and anticipated (DfES, 2003). The past five years have seen widely deployment in both higher and further education in the United Kingdom. However, the evaluation of the use of VLEs has focused mainly on staff or institutions rather than learners and their experiences. Nevertheless, Brown and Jenkins report that there is an increasing recognition that VLEs are intended to support learning, rather than for example, efficiency gains (Brown & Jenkins, 2003). The JISC funded MLE study on VLEs in FE (JISC 2003) pointed out that the FE sector is at an earlier stage in the development and use of VLEs than the HE sector despite 82% of all responding FE colleges stating that they have a VLE.

These two case studies focussed on the experiences of FE learners and form an additional part of a larger research project that aims to address the apparent lack of research into this important area – the Students' Online Learning Experiences (SOLE) project (<http://sole.ilt.bris.ac.uk/>).

The SOLE project (Students Online Learning Experiences)

The project team consisted of researchers from five different LTSN centres and covers the subject areas of Economics, Psychology, Information and Computer Science, Education and Hospitality, Leisure, Sport and Tourism, and two subject areas in FE - Psychology and Art and Design.

The main research questions the project aimed to address were:

- What is the implicit learning model, what is the explicit learning model and what is the actual lecturer and student behaviour?
- What factors do students identify as affecting their motivation positively or negatively and can these be attributed to the VLE itself?
- How much time (online and offline) do students spend working on VLE units?
- What resources are the students making use of and what patterns of use can be identified?
- How do students use the VLE toolkit?
- How do students choose to communicate and for what purposes? How do the VLE tools support this?

- What is the role of the lecturer? What is the role of the student? How do these relate to the implicit, explicit and actual model of learning? How does it relate to student participation in the VLE?
- Is it possible to identify issues around authority, for example of knowledge, expertise and teacher-student communications, in relation to VLEs?
- How do students and lecturers use and perceive the various forms of support available? How important do lecturers think the support is and what is their understanding of student preferences?

The research aimed to uncover what happens when students are working with a VLE; the discourse and processes they undertake; the students' views and perceptions and identification of common factors and success indicators. In addition, the FE case studies have been undertaken in order to pilot the methodology within the FE sector, and to make recommendations for future students or further studies of this kind.

1.3 Methodology

The study methodology was based upon the evaluation framework set out in the handbook for learner-centered evaluation of computer facilitated learning projects in higher education ([Philips et al., 2000](#)). Several aspects of the research have drawn on the Critical Incident Technique pioneered by Lockwood ([Gilbert and Lockwood, 1999](#)). The approach was designed to provide an in-depth set of case studies based on course units across a range of subjects, with a wide range of data and collection methods.

The following main primary data gathering tools were used:

- Student questionnaires (two - one at the start of the unit and one at the end)
- Student diaries (two – one in week 3 and one two weeks before the end of the unit)
- Individual student interviews (at the end of the unit)
- Lecturer interviews (two – one at the start of the unit and one at the end).

The first FE case study was completed between September and December 2003. The second was completed between March and June 2004. The methods employed were the same as the methods used by the initial Higher Education case studies in the SOLE project with the following completion rates:

Description	Total number of responses	
	case study 1	case study 2
Number of students on unit	56	13
<i>Response</i>		
Questionnaire 1	50	9
Questionnaire 2	13	7
Questionnaire 1 + Questionnaire 2	13	7
Diary 1	7	7
Diary 2	11	7
Diary 1 + Diary 2	6	5
Lecturer Interview 1	1	1
Lecturer Interview 2	1	1
Student Interview	3	3

Table 1: Number of responses by research tool

Overall, questionnaire 1 had a response rate of over 85%; questionnaire 2 had a 28.9% response rate. A large percentage of students were not present when questionnaire 2 was administered, this contributed to a small number of matched cases. However, Case Study 2 had only 13 students in total.

14 students completed Diary 1 and 18 students completed Diary 2. 11 students completed both diaries, including 6 students from Case Study 1 and 5 students from Case Study 2. Three students from each case study were interviewed at the end of the term. One lecturer from each case study was interviewed at the beginning and end of the unit respectively.

The language and terminology used in the questionnaires, diaries and interviews were modified and simplified from the originals to accommodate younger learners in Further Education, in consultation with an educational writer at the University of Bristol with an FE background and experience.

2. Background to the case studies

This section of the report introduces the background context of the units and the profile of the students from each case study.

2.1 Context of the units

The first case study was undertaken at a college in the west of England during September – December 2003, a 12-week semester. The second study was undertaken at a college in Wales between March and June 2004, a 10-week semester. Each case study focussed on a full time programme at AS, A or national diploma level, both of which used Learnwise.

Case Study 1

CASE STUDY 1: Unit overview	
Unit name	Social psychology, cognitive psychology and cognitive development
Length	12 weeks
No of. students on unit	56
VLE	Learnwise
Aim	To develop psychological foundation knowledge and skills – including research skills and an understanding of psychological theory and its application to real life

Case Study 1 college had a well developed Interactive Learning Technology (ILT) strategy, and a number of gateway advisors (support staff with specialist ILT skills) to support teachers to transform from traditional teaching into more interactive facilitation. The aim was for all teachers to teach one third of their units via ILT.

The lecturer designed the unit material. It was the 3rd year that she had taught the unit, and the 2nd year that materials for this unit were available on Learnwise. There was more than one lecturer involved in the teaching and there were also gateway advisors providing help with materials development.

The lecturer wanted to adopt an *andragogical* approach to learning. Knowles (1970) defined andragogy as "an emerging technology for adult learning." With four core assumptions:

- 1) Move from dependency to self-directedness;
- 2) Draw upon their reservoir of experience for learning;
- 3) Are ready to learn when they assume new roles; and
- 4) Want to solve problems and apply new knowledge immediately. .

This term is used rarely in higher education where the term *pedagogy* is generally used with additional descriptors (eg student-centred pedagogy, socio-constructivist pedagogy) and perhaps says rather more about the educational underpinnings of these two sectors. This issue will be considered further in Section 4.

In this study, the lecturer aimed to involve students actively in learning activities, such as peer teaching, group discussion, research and presentations; these were fully integrated into the learning model and plan for the course. However, these activities mainly took place within a classroom context in timetabled sessions with the lecturer's present so that there was still a relatively high level of structure and control.

Case Study 2

CASE STUDY 2: Unit overview	
Unit name	Drawing development and visual communication
Length	10 weeks
No. of students on unit	13
VLE	Learnwise
Aim	Improving students ability to produce art work that communicates messages, understand how others to design and use their skills to communicate a message

Case Study 2 college e-learning strategy was in the process of being written at the time of data collection. Within the art and design department, students are encouraged to adopt a “do-and-review” approach; students were encouraged to test and experiment and review what worked. Teachers started to use the tutorial system to encourage learners to learn from their own experience and gradually move on to take more initiative, become more independent and understand their own learning styles so they can manage their own projects. The college wanted to encourage lecturers to use the VLE and to put a proportion of their material on the VLE. The VLE was embedded in the learning resources structure of the college and available at the central learning centre and other key areas within the campus for learners to access.

The college had already introduced an ILT champions scheme. It was the second year of the scheme at the time the study was undertaken. In the first year the ILT champions got to grips with the resources and structures and in the second years the strategy was to get the team together so the ILT champions could discuss and demonstrate use of the materials. In this way, the college is beginning to see skills and experiences cascading inot all departments. All teams had had training so that every member of staff who lectures should not know about the VLE or how to use it. The next year would see more targets placed on lecturers to use the VLE and to put a proportion of their material on the VLE for learners to access.

The unit was developed from team meetings and it was the second year the lecturer interviewed had been involved in running it. The purpose of the unit was to study the skills of artists and designers in communicating a message and transfer it to their own practice. To be specific, it aimed to improvestudents' *mark making* ability - planning how they can produce work that communicates either how they're feeling or communicates a certain message - using text while understanding how it could be used in a visual manner, as well as using ICT in their creative artwork.

2.2 Profile of participants

The following tables present information on the gender, age, country in which they received secondary education and first language of the participants.

2.2.1 Gender

	case study 1	case study 2
Male	34.0%	0.0%
Female	66.0%	88.9%
Missing	0%	11.1%

Table 2: percentage of respondents to questionnaire 1 by sex

Two thirds of the students from case study 1 who completed Questionnaire 1 were female. Apart from the missing data, respondents from Case Study 2 were all female.

2.2.2 Age group

Students were categorised into four different age groups: under 16; between 16 (inclusive) to 18, between 18 (inclusive) to 21, and above 21, up to 40.

	case study 1	case study 2
<16	0%	0%
16-17	76.0%	55.6%
18-21	20.0%	33.3%
22-40	4%	0%
Missing	0%	11.1%

Table 3: percentage of respondents to questionnaire 1 by age

The majority of students from case study 1 were aged between 16 to 21, with 76% of them aged 16 or 17, 20% of them between 18 and 21. 4% of the students from case study 1 were mature student aged over 22. All students from Case Study 2 were aged between 16 to 21, with 55.6% below 18, and 33.3% above 18, there was no mature (over 22) student present in Case Study 2. There was no very young students (under 16) presented in either of the case studies.

2.2.3 Country of education/first language

Country of education	case study 1	case study 2
UK	94.0%	88.9%
UK + USA	2.0%	0%
USA + W. Europe	2.0%	0%
Missing	2.0%	11.1%

Table 4: percentage of respondents to questionnaire 1 by country of secondary education

First language	case study 1	case study 2
English	96.0%	88.9%
Chinese-based	2.0%	0%
Missing	2.0%	11.1%

Table 5: percentage of respondents to questionnaire 1 by first language

The majority of the respondents from both case studies had their previous education in the UK; only 2 students from case study 1 reported being educated in countries out of the UK. English was the first language for almost all of the students, except 1 from case study 1 reporting speaking a language other than English as first language. No students from Case Study 2 reporting receiving education from outside UK or speaking other language than English as first language.

3. Results

The result presented below is data collected from student questionnaires, lecturer and student interviews and student diaries. The findings from the two case studies are reported separately. A summary at the end of each case study draws the result collected by different instruments together for each case study.

3.1 Case study 1

Data collected by questionnaires, interviews and diaries from case study 1 is presented below, followed by a summary of the case study.

Two questionnaires were conducted over the course of one term; one at the beginning, the other at the end. 50 students completed the first questionnaire, 13 completed the second one. Those who completed the second questionnaire also completed the first one.

Questionnaire 1 contains four sections of questions – students’ characteristics, students’ confidence levels, their motivations levels and finally students’ use of Learnwise. The results reported below follow each of the sections of questions asked in the questionnaire, except the characteristics, which were reported in the students’ profile section at the beginning of the report (see section 2.2).

3.1.1 Student questionnaires

3.1.1.1 Initial confidence levels

Six questions about students’ preparedness and confidence in using Internet, Learnwise and the subject they were studying were asked in this section, at the beginning of the term. The tables and charts present the results in the orders of questions asked.

Confidence in using the Internet

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Using the Internet	34.0	52.0	10.0	4.0	0

Table 6: Confidence in using the Internet, questionnaire1, case study 1

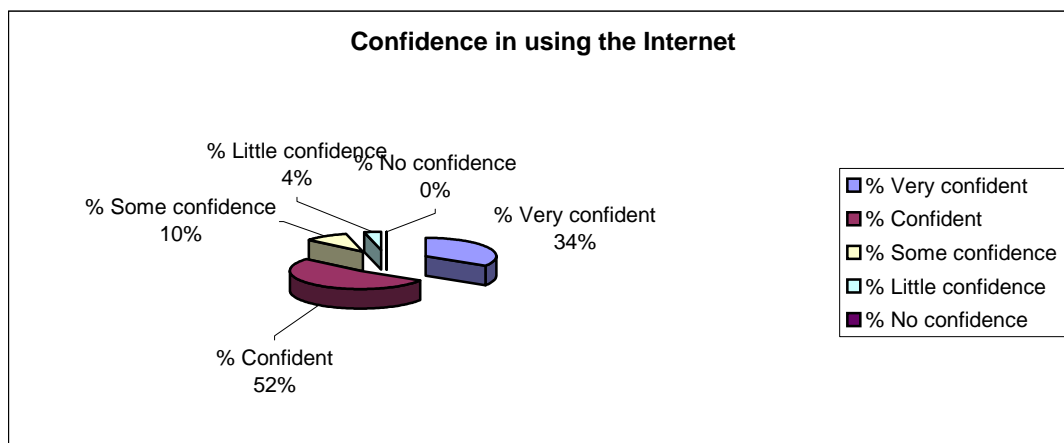


Figure B: Confidence level in using the Internet

The table and chart above shows that most (86%) of the 50 students who completed the first questionnaire reported being confident or very confident in using the Internet, only 4% of student reported having little confidence or less.

Confidence in working and learning online

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Working and learning online	18.0	56.0	18.0	8.0	0

Table 7: Confidence in working and learning online, questionnaire 1, case study 1

The majority (74%) of the students reported having confidence or strong confidence in working and learning online, only 8% percent of students reported having little confidence.

Confidence in finding way around Learnwise

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Finding your way around Learnwise	2.0	28.0	46.0	16.0	6.0

Table 8: Confidence in finding way around Learnwise, questionnaire1, case study 1

Nearly half (46%) of the students reported having some confidence in finding their way around Learnwise, 30% reported being confident or very confident, whilst another 22% having little or no confidence.

Confidence in obtaining information via Learnwise

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Obtaining information via Learnwise	4.0	30.0	48.0	10.0	6.0

Table 9: Confidence in obtaining information via Learnwise, questionnaire 1, case study 1

Nearly half (48%) of the students reported having some confidence in obtaining information via Learnwise, 34% having confidence or strong confidence, 16% having little or no confidence.

Confidence in taking part in online discussion

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Taking part in online discussions	12.0	26.0	48.0	10.0	2.0

Table 10: Confidence in taking part in online discussion, questionnaire 1, case study 1

About half (48%) of the students reported having only some confidence in taking part in online discussion, 38% of them reported being confident or very confident and a further 12% having little or no confident.

However, older students (>22, <40) were less confident than their younger peers in participating online discussion, according to result given by the Kruskal-Wallis test ($p=0.045$, $n=50$).

Confidence in the subject you are studying in this unit

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
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The subject you are studying in this unit	10.0	36.0	46.0	6.0	2.0
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Table 11: The subject you are studying in this unit, questionnaire 1, case study 1

46% of the students reported having some confidence in the subject they were studying; another 46% reported being confident or very confident in it, 8% reported with little or no confidence.

The following figure (C) shows students' confidence at the beginning of the unit. The students reported high level of confidence over using the Internet and working and learning online generally whilst a lower confidence level were reported finding way around Learnwise, obtaining information via Learnwise and taking part in online discussion.

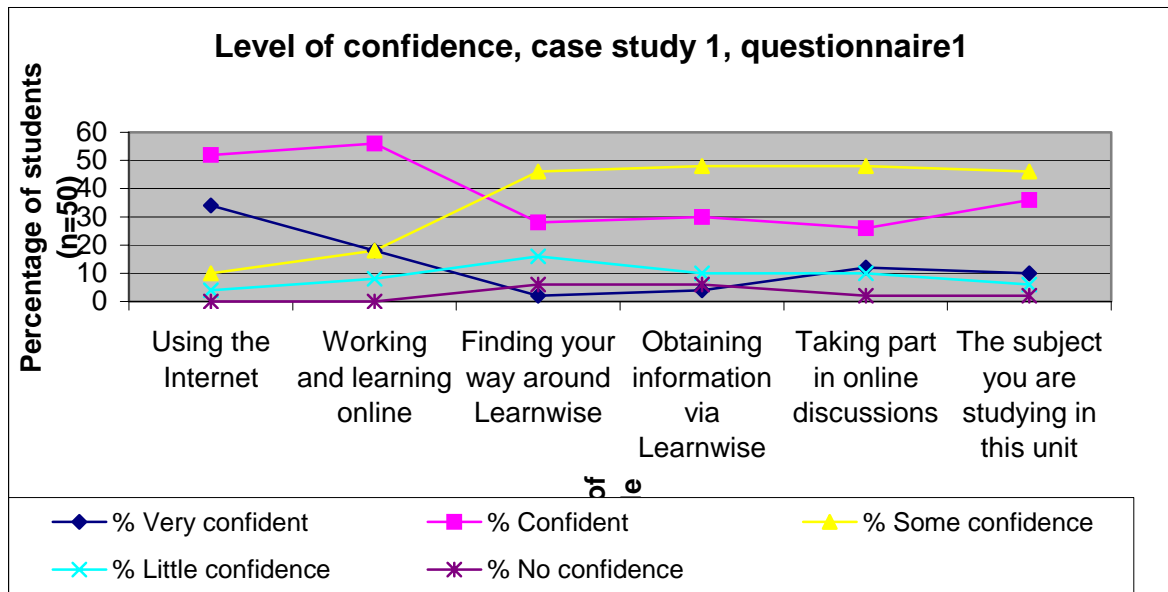


Figure C: Confidence levels reported in questionnaire 1, case study 1

Previous VLE experience:

In questionnaire 1, students were asked whether they had used a VLE prior to studying this unit. The majority of students reported having no experience using Learnwise before the unit started, 10 students or 20% reported having some experience but no more than 3 hours. Among those who had experience using Learnwise, the majority (7) had only 1 hours experience, 2 had 2 hours experience, and 1 had 3 hours experience.

Summary of confidence findings

Students in this case study reported high levels of confidence at the beginning of the term. The majority of students reported having confidence or strong confidence in using the Internet and working online. In terms of using VLE tools, students generally reported lower levels of confidence; and around half of them reported having only some confidence finding ways around Learnwise, obtaining information, and discussing online. Around one third of the students reported being confident or very confident in using the various VLE tools, though this is not surprising given the low levels of previous experience with the VLE. In terms of the subject of the unit they were studying, most students expressed at least some confidence, with half expressing they were either confident or very confident.

3.1.1.2 Initial motivation

In this section we report on the results of questions on motivation. This included questions on specific motivational drivers as well as general motivational levels.

Motivational drivers

	% Strongly agree	% agree	% neither agree or disagree	% Disagree	% Strongly disagree
The most important thing is getting good marks in assessment(s)	28	72	0	0	0
I am really worried that I may not do well in this module	4	26	48	22	0
I am interested in the subject matter of this unit	36	58	4	0	0
I am doing this unit to help me achieve my personal goals	38	40	20	2	0
I am good at this subject and expect to do well	4	8	78	10	0
It's important to do better than others in the group	0	4	46	34	16
I am only doing this unit because I need the credits	0	0	6	28	66

Table 12: Motivational drivers – questionnaire 1, case study 1

The most important thing is getting good marks in assessment(s)

All of the students agreed or strongly agreed that the most important thing was getting good marks in assessment(s).

I am really worried that I may not do well in this module

Nearly half of all the students reported neither agree nor disagree that they were worried about not doing well in the unit, around 30% of the students agreed or strongly agreed, and 22% of the students disagreed.

I am interested in the subject matter of this unit

Nearly all (94%) of the students reported they were interested in the subject matter of the unit they were studying. No student reported having no interest in it.

I am doing this module to help me achieve my personal goals

The majority (78%) of the students agreed or strongly agreed that they did the unit to help in achieving their personal goals, only 2% disagree with it.

I am good at this subject and expect to do well

Surprisingly, only 12% of students agreed or strongly agreed that they were good at the subject and expected to do well, 10% disagree with it. The majority of students (78%) neither agree nor disagree with the statement.

It's important to do better than others in the group

Half of the students did not agree that it was important to do better than others in the group, only 4% of students thought it was important.

I am only doing this module because I need the credits

Nearly all (94%) students disagreed or strongly disagreed that getting credits was the only reason they did the unit. Nobody reported that he or she was doing the course only for the credit.

A mixture of intrinsic and extrinsic motivators were reported by the students. Getting good marks in the assessment, the subject matter and fulfilling personal goals were the strongest motivational drivers whilst doing the module just for the credit and doing better than others in the group were not considered to be positive motivators for this group of students.

General motivation

In a separate question, students were asked to report on their current level of motivation on a 1-10 scale, with 1 the lowest point and 10 the highest, as shown in table 13 below.

%	0	1	2	3	4	5	6	7	8	9	10	Mean score
Beginning of unit	0	0	0	0	0	2.0	10.0	32.0	24.0	26.0	0	7.78

Table 13: General motivation score, questionnaire 1; question 9, case study 1 (n=47)

Overall the students rated their motivation (1= unmotivated, 10=highly motivated) at the beginning of the unit from 5 to 9, with a mean rate of 7.78. 47 students out of 50 responded to this question. They were generally highly motivated at the beginning of the unit. Half of them rated the level of their motivation at 8 or above. 32% ranked at 7. 10% ranked at 6, and 2% ranked at 5.

The result of correlation tests examining the relationship between students' motivation and their confidence levels showed that those who had more confidence in the subject they were studying were more motivated and expected to do well ($p=0.400$, $n=50$, correlation sig at 0.01 level, Pearson Correlations test). Those who reported being motivated by gaining credit by doing the unit also reported high confidence level in using the Internet. ($p=0.299$, $n=50$, correlation Sig. at 0.05 level, Pearson Correlations test) There was no other significant difference was found.

Summary of findings on initial motivation

In case study 1, the overall students' general motivation over the studying was 7.78 on the motivation scale. They were highly motivated by getting good marks in assessment, their interests in the subject matter, achieving their personal goals by doing the unit. Half of the students didn't think it was important to do better than their peers. Nearly all students did not do the unit just for the credit.

3.1.1.3 Using Learnwise at the beginning of the unit

Students were asked about their early experience of using Learnwise in this unit – the induction, their feeling towards it and the support they anticipated during their using it in their learning.

Have you had any introduction to using Learnwise?

2 students reported had experience from previous year course, 1 reported being shown on how to use.

Have you got any worried about using Learnwise?

6 students voiced that they were worrying about not being able to use it because they of no experience with Learnwise. There was also worrying about themselves not being good with computers would result difficulties in using Learnwise.

Is there anything about Learnwise which you are looking forward to?

7 students responded to this question, 3 reported that they were looking forward to exploring this new way of learning, 2 were looking forward to the information and resources it provided, 1 was about how it help with learning, and 1 was about specific in online debating.

Is there anything about Learnwise which you are not looking forward to?

3 replies received to this question, they were all technical related issues - worrying not being able to understand how to use it, technical jargon and use of computer.

What kind of help or support is there for you in working with Learnwise?

11 students reported they were not sure or didn't know any support available. Nine reported that their tutor / lecturer were available to help, four reported help on the Internet and online, two reported help from technicians there were also students reported help from books and other information resources.

Summary of findings on initial use and support of Learnwise

Students appeared, in the one hand, to be looking forward to using Learnwise and exciting in finding their way through in the new environment of learning; in the other hand, showing their worries of not being able to use it well, this corresponded the small number of students who had previous experience and a few number of students who reported an induction had been in place. However, a certain number of students were quite confidence at help and support they could get, especially from their unit lecturer.

Questionnaire 2 consisted of three sections, on students' motivation levels, their confidence levels and experience of using Learnwise respectively at the end of the unit.

3.1.1.4 Motivation levels and influences at the end of the unit

The motivation sections included a general motivation scale, which was identical to that in Questionnaire 1, and a series of factors which students were asked to identify as influencing their motivation positively, negatively or having no influence

Table 14 below shows the results of the question asking students to rate their current level of motivation towards the module.

%	0	1	2	3	4	5	6	7	8	9	10	Mean score
End of unit	0	0	0	0	0	7.7	23.1	46.2	15.4	7.7	0	7.12

Table 14: General motivation score, questionnaire 2; question 1, case study 1, n=13 (1=Unmotivated, 10=highly motivated)

At the end of the unit, the mean score of the general motivation level of the students on a 1-10 (low – high) scale was 7.12, which was almost the same level as that at the beginning of the unit (7.78). However, although the overall scores remained within the same range, the biggest portion (46%) of the students rated their motivation at 7 this time, and 23% rated it at 6. This impacted on the percentage of students who rated the level of motivation at 8 or above which dropped to 22%, compared to 50% in the first questionnaire. Therefore although mean levels across the group remained fairly constant, within the group there was some reduction in motivation amongst a number of individuals, though this shift from 8 or 9 to 7 is slight and overall motivation appears to have remained high.

The students were given 11 specific motivation factors (plus an "other" category) to determine whether they had positive or negative effects on their learning. Figure D below shows the results of the students' responses on a range of factors influencing motivation. Results at zero show no change, below zero are negative, above zero are positive factors.

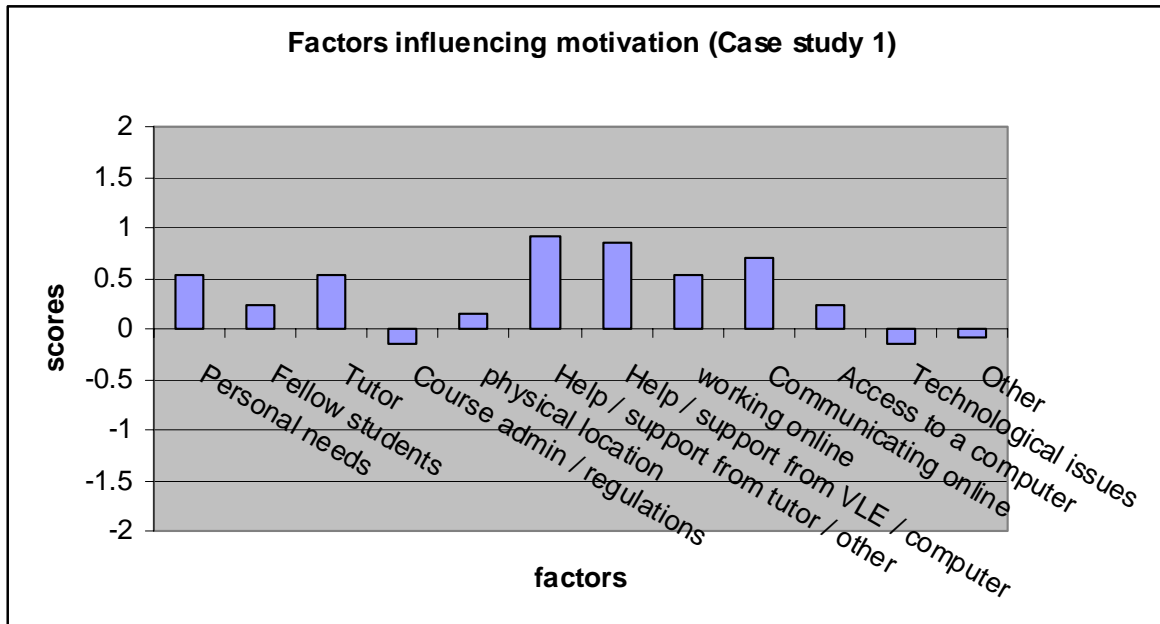


Figure D: Factors influencing motivation - questionnaire 2: question 2: case study 1 (n= 13)

The figure above shows that the majority of factors were reported by the students as having a positive motivating influence on their studies.

Personal needs were reported by 54% of the students as a positive motivating factor and 31% of the students reported that fellow students being a positive motivating factor, whilst 8% reported it as a negative factor. The lecturer or tutor was reported as positive motivating factor by 54% of the students. In addition, help and support from lecturer / other was reported by 92% of the students reported as a positive motivating factor. No respondent reported it as negative motivating factor.

Help and support from VLE or computer was also reported as strong motivator - 85% of the students registered this as a positive motivating factor, no negative effect of it was reported by students. Other overwhelmingly positive factors were physical location, online communication, working online access to computers and other technological issues.

Negative factors were course admin /regulations where 23% of the students reported these as a negative motivating factor, and only 7.69% reported it being a positive factor And Others where one of the students noted that the contents of Learnwise and some books did not always concur, and reported this as a negative motivating factor. The full results of this question can be found in Appendix 1.

To summarise, students' overall motivation at the end of the unit remained at about the same level, although about half of the students rated their motivation lower than the very high levels reported at the beginning of the unit in the first questionnaire.

Help and support from the lecturer or other students, help and support from computer, communicating online, working online, personal needs and the lecturer were high positive motivational factors for students. Technological issues and course administration were negative motivating factors; one student also reported a lack of agreement between information on the VLE and books as negative factor.

3.1.1.5 Confidence levels at the end of the unit

In this section, the same 6 questions about students' readiness and confidence over using the Internet, Learnwise tools and the subject that were asked at the beginning of the term, were asked again at the end of the term, in order to compare the students confidence of the relevant aspects at different stages of using the VLE in their learning.

Confidence in using the Internet

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Using the Internet	61.54	38.46	0	0	0

Table 15: Confidence in using the Internet, questionnaire 2, case study 1

All students reported being either *very confident* or *confident* with using the Internet.

Confidence in working and learning online

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Working and learning online	61.54	38.46	0	0	0

Table 16: Confidence in working and learning online, questionnaire 2, case study 1

All students reported being *very confident* with working and learning online.

Confidence in finding way around Learnwise

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Finding your way around Learnwise	53.85	46.15	0	0	0

Table 17: Confidence in finding your way around Learnwise, questionnaire 2, case study 1

All students reported being either *very confident* or *confident* with finding way around Learnwise.

Confidence in obtaining information via Learnwise

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Obtaining information via Learnwise	38.46	46.15	15.38	0	0

Table 18: Confidence in obtaining information from Learnwise, questionnaire 2, case study 1

Around 85% of the students (85%) reported being *confident* or *very confident* with obtaining information via Learnwise, no student reported having little or no confidence with it.

Confidence in taking part in online discussion

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Taking part in online discussions	53.85	23.08	23.08	0	0

Table 19: Confidence in taking part in online discussion, questionnaire 2, case study 1

About 77% students reported being *confident* or *very confident* with taking part in online discussion.

The subject you are studying in this unit

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
The subject you are studying in this unit	38.46	46.15	15.38	0	0

Table 20: Confidence in taking part in online discussion, questionnaire 2, case study 1

Around 85% of the students reported being *confident* or *very confident* with the subject they were studying.

At the end of the unit, all students who responded to questionnaire 2 reported being confident with using the Internet, and working and learning online. All of them also reported being confident with finding way around Learnwise. A majority (85%) of the respondents reported being confident or very confident in obtaining information via Learnwise. Three quarters of them reported being confident or very confident in taking part in online discussions and 85% respondents reported being confident or very confident in the unit subject. No students reported having little or no confidence with using ICT in their studies, or working with Learnwise or the subject they were studying. This seems to represent a strengthening of confidence overall from the beginning to the end of the unit (see section 3.1.4.4 below for more information).

3.1.1.6 Using Learnwise at the end of the unit

This section of the second questionnaire asked about students' reported experience of using Learnwise in studying the subject, including problems and difficulties they confronted, benefits they gained, and help and support they received.

Have you had any problems working with Learnwise?

5 students responded to this question. 3 were technical issues – the site went down, problems with the login page. 1 was about the finding information, and 1 about the confusing information

What kind of help or support is there for you in working with Learnwise?

8 students reported having received help from the Lecturer, 5 from other students, 2 from technicians, and 1 from a website.

What aspect of Learnwise helped you learn most?

11 students responded to this question. Information provided by Learnwise was cited as helpful - 3 students reported notes and 4-reported that the quiz were most helpful. Students also found the structure of Learnwise or of the content was helpful, specifically index and heading. Online communication was another helpful aspect - 2 students reported the forum was most helpful to them, 1 reported online chat and another reported being able to email the lecturer was most helpful to them.

Which aspect of Learnwise made it difficult to learn?

9 students reported having difficulties with Learnwise, 3 about accessing Learnwise –access from home or that the site was not available, 2 were about the functionality of Learnwise – the layout, and design and interaction, 1 about unit contents in Learnwise. 2 reported they didn't have any particular difficulties.

Further comments

3 students added further comments, they found that Learnwise had been useful and helpful but there were also difficulties in finding the information needed. 1 of the comments stated that s/he was more enthusiastic about learning the subject because of it.

The students from case study 1 found that Learnwise contributed to their learning in various ways including relevant contents and activities, group learning activities, online communication such as online chat and emailing the lecturer and also the structure of the Learnwise. They also experienced some problems or difficulties in their use of Learnwise, which were mainly technological issues relating to access and connection although the structure and layout of Learnwise was also an issue for some. However this contrasts with other students' views that the structure was particularly helpful. This may suggest differences in student use of Learnwise and difference approaches to learning. However students received inclusive support from mostly their lecturer within timetabled scheduled time, and often from peers, which corresponded to the lecturer's intention of fostering peer teaching and group collaboration.

3.1.1.7 Changes over the time:

Level of Confidence

In order to determine more precisely whether there were changes in confidence over time, Wilcoxon signed ranks test were run to examine the changes of students confidence levels using ICT or VLE and confidence over the subject, between the beginning and the end of the unit. Comparing with Questionnaire 1, confidence levels changed significantly over time for the following factors:

Working and learning online ($p=.034$, $n=13$), finding their way around the Learnwise ($p=.004$, $n=13$), using Learnwise obtaining information ($p=.014$, $n=13$), taking part in online discussions ($p=.031$, $n=13$), and confidence level over the unit ($p=.004$, $n=13$) increased significantly at the end the term.

How confident are you?	% Very confident		% Confident		% Some confidence		% Little confidence		% No confidence	
	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2
Using the Internet	34.0	61.5	52.0	38.5	10.0	0	4.0	0	0	0
Working and learning online	18.0	61.5	56.0	38.5	18.0	0	8.0	0	0	0
Finding your way around Learnwise	2.0	53.9	28.0	46.2	46.0	0	16.0	0	6.0	0
Obtaining information via Learnwise	4.0	38.5	30.0	46.2	48.0	15.4	10.0	0	6.0	0
Taking part in online discussions	12.0	53.9	26.0	23.1	48.0	23.1	10.0	0	2.0	0
The subject you are studying in this unit	10.0	38.5	36.0	46.2	46.0	15.4	6.0	0	2.0	0

Table 21: Changes in confidence over the time, case study 1

Level of General Motivation

As previously reported, general motivation levels remained constant over time.

Use of Learnwise

At the beginning of the unit, few students had experience of using Learnwise. They were looking forward to using it and expecting it to be helpful to their learning. They expressed their worries about not being able to use it but they were quite confident that the teachers would provide help and support. At the end of the unit, the students reported that Learnwise had contributed to their learning in various aspects. The students found the learning resources e.g. notes, quiz, the organisation/structure of the contents as well as the tools available from Learnwise, such as online communication tools – the forum, online chat and email. These reported aspects of their experience support the students' continuing engagement with Learnwise and their growing experience of using it, which corresponded to the significant increase in their confidence levels over using VLE.

3.1.2 Interviews – case study 1

The findings presented below are drawn from the two interviews from lecturers (at the beginning and at the end of the term), and the 3 students' interviewed at the end of the term. Interviews were tape recorded and transcribed. These have been analysed using Nudist N6 based around the original research questions acting as thematic guides.

3.1.2.1 Learning models, students online learning activities and tools used

The structure of the unit was:

“based around three different sub units which are social psychological, cognitive psychology and cognitive developmental and within each of those are six key areas which are key assumptions, research methods, in depth area study ... key application, contemporary issues and within each of those its developing research skills and our understanding of psychological theory [...] and it’s application to real life.” (Lecturer interview1, case study1)

The lecturer intended to adopt a more independent, androgogical learning approach to teaching and learning, which intended to:

“shift the emphasis away from being kids just to be there being sponges to them than being active in their learning, researching themselves, taking responsibility, realising its in their control and for them to achieve.” (Lecturer interview1, case study1)

Her strategies were to encourage students actively participating in self-learning, peer teaching, group discussion and doing quizzes etc. which she created with ILT and on Learnwise. She also intended to encourage and lead students to experience and practice in the psychological community, such as going to the BPS conference, visiting a prison or getting the prison psychologist to talk to the class.

Around a third of the unit was taught via ILT or VLE sessions. She used access boards to show presentations and websites, multimedia material such as DVDs and videos, as well as using an interactive whiteboard via VLE through which all students and teacher could write on and keep a record. Each of the two groups of students had an hour and a half per week VLE session in the computer pods where they could take part in web chats or look at VLE resources and do the quizzes on their own with the lecturer on site. She wanted the students to:

“see Learnwise as a mechanism that could help them take charge of their studies and direct their studies so I ‘m no telling them what to do and they have to do this and that then they themselves will be driving themselves and they re using a mechanisms on Learnwise to do that and also adding their work to learn wise to help their peers.” (Lecturer interview1, case study1)

She felt that the VLE reinforced this student-centred approach and gave them scaffolding to work towards being independent: There were also opportunities for constructing their own knowledge and sharing their work with others:

“A lot is by the VLE, they’ve devised stuff and we’ve put it on the VLE so its instant access for all the students then to see what all the students have done...I want them to enjoy learning and know how to do it” – (Lecturer Int2 case study 1)

Students used Learnwise to do their research, revise for tests and access mock exams, at their own pace. They also enjoyed group work and experienced sharing through web chatting and the forum which corresponded with the teacher’s intention of group learning.

“We’d have to research that ourselves and that’s what we’d use it for just to find the definition of all these things.” (Student A, case study1)

“The good thing about it is that you can learn at your own pace and then its in the same respect if you are stuck on something you have the chat forums which can always talk to the teacher and you have friends beside you who will always help you who are doing the same thing so its very good for both learning on yourself because you can go at a quicker pace if you want but also learning with others if you need to.” (Student C, case study1)

“We often used the forum. ...that was good because other people could see what you’ve written and get ideas and you can bounce ideas off other people and say that was a very good point you know I didn’t get that, so it was very useful.” (Student C, case study1)

Group learning was among the teacher’s intended teaching and learning strategies and students found it was effective to learn from discussions with each other:

“When we use Learnwise in the class then there’s quite a lot of interaction between the groups as we’ll see what each others doing... ” (Student B, case study1)

“

“we gather round it (the computer) or because there is the forum you can have a look at other people’s work and see the kind of answers that are being expected so its not like you are really isolated its just another means of kind of bringing lots people’s work together in one place so it’s a good way of helping.” (Student B, case study1)

Because the VLE is used within the classroom environment there is no issue about feeling isolated or alone and the group work appears to have been well received by students who understood what the benefits of this approach were. Furthermore, the use of Learnwise for formative assessment supported at least one of the students’ in developing higher order skills:

“ the best time I found it most helpful to use is doing the test on Learnwise, ‘cos its quite good to take yourself off on your own and go through it individually and then you can actually get a quite clear assessment of what you know and what you need to brush up and also you can go back and open up all the notes really quickly so that you can find out you know you can revise on your weaknesses as it were going back and realise and ... the notes are really clear as well I found that quite easy.” (Student B, case study1)

There was also evidence showing that some students adopted a strategic approach in their using Learnwise:

“I did that for a test a few weeks ago which was on the cognitive approach and did like a little self assessment using the tests on Learnwise before I went and did the test in class so I knew what I wasn’t too sure about.” (Student B, case study1)

Students were also looking for resources which are easy to use and efficient:

“...its very quick, it’s quicker than any other way of finding information that I could think of every straightforward ... we have our books we have other ways of researching these things but I just went on Learnwise and I was able to get everything I needed in order quite straight forward and I was able to just get printouts of it and put together what I needed for the mock exam.” (Student A, case study1)

They also used Learnwise as a guide to target specific information:

“... it stops you kind of veering off on a tangent and maybe going down the wrong route ..., it stops you looking at um experiments and people who’ve done research that isn’t relevant to the course cos there is a lot of information in the book that you can’t necessarily apply when it comes to the exam ... “with Learnwise everything relevant is on the screen in front of you. I find that a lot more helpful. ” (Student B, case study 1)

Whilst this desire for a quick and easy solution and the suggestion that students may be taking a targeted approach to the use of the resources could be argued to be evidence of an independent learning approach, the highly structured nature of VLEs might also be considered to be counter productive in creating a reliance on a one stop shop approach. This issue will be considered further in section 4.

3.1.2.2 Student activities and tools in using Learnwise:

The forum is one of the tools favoured by students interviewed in case study 1 used, in addition to notes and quizzes.

“I used the forum on it as well that was on a separate occasion that I’ve used the forum to like paste up bulletins and essays and whatever you on certain aspect.” (Student B, case study 1)

The students do not necessarily participate actively in the postings; going through the posts by others was also felt to be an effective way of learning.

“I haven’t personally had feedback or anything like that but I’ve gone through and read a lot of other people’s essays as well as again that’s really good like extracting the key information.” (Student B, case study 1)

The use of Learnwise also reflected students’ understanding / following of the teacher’s conceptual framework or personality reflected in the unit design...

“When it comes to things like books and you have the Internet I mean the Internet has everything but you just have to know how to get there. “ and “then books the same way... I mean its put there by the writer of the book and you don’t know the way that that person explains things so it’s a lot more understandable to be get through and read so I would like my other classes to use it.” (Student A, case study 1)

In general, both students and lecturer were equally positive about the teaching and learning. And the actual learning model corresponded well to the intended learning model. However, the topic and activities students engaged in as well as the time and location of using VLE and student’s control of the VLE was limited – these may reflect the characteristics of learning and teaching in FE, but also the restrictions the teachers has experienced in providing out of hours access.

3.1.2.3 Student and lecturer roles and communication

The teacher developed the curriculum, devised and gathered learning resources including course related material, different sharing, assessment and presentation mechanisms, offered links with the community in a broader sense, integrated the VLE with the course as whole and put in place support, mentoring, motivation and facilitation for the students. She viewed herself:

“more as a facilitator than as a teacher”,

and saw her role as helping to

“facilitate students to learn rather than teach them to learn”. (Lecturer Int1 case study 1)

She expected students to be more independent from her and to work together. It may be that this expectation and clear vision are the key to the success of this lecturer in achieving her goals:

“I’m not necessarily tending to drive the learning, it seems that they tend to drive the learning because they are working at their own pace and they demand information from me either to extend their knowledge or to support it if they’re not sure. So I’m just there to facilitate and support rather than to teach they are learning and you can definitely measure and see the learning going on.” (Lecturer int2, case study1)

“I want the students to become more independent learners. I want them to see Learnwise as a mechanism that can help them take charge of their studies, and direct their studies so I’m not telling them what to do and they have to do this and that then they themselves will be driving themselves and they are using a mechanisms on Learnwise to do that. And also are adding their work to Learnwise to help their peers” (Lecturer Int1 case study 1)

Three options were provided to the students when asking about their view regarding to the role of their lecturer:

- Somebody coaching a football team
- Somebody guiding a group through an unknown land
- Somebody who ran a help line

The students viewed the lecturer as someone “coaching a football team“, “guiding a group through an unknown land”:

“It was something that I was completely unfamiliar with how to go about; she was helping me out with that, she took you through step by step.” (Student A, case study 1)

“[Lecturer] is really kind of guiding us along and helping us achieve what we want to achieve ‘cos we know what we are all there for.” (Student B, case study1)

They also regarded the lecturer as “someone running a help line for people in trouble” supporting them academically, technically as well as morally:

“she came around and made sure we were ok and most of the time she was in the chat forum we usually get on fine ... but if we did need something then she was always just not very far

away ... she tried to help us learn by ourselves but was there in case we needed.”(student C, case study1)

“she knew my frustration, and she knew the way to get through was just tell me this is there, stop doing that, that’s there, stop getting frustrated and it was just like that and it worked.” (student A, case study1)

The students viewed themselves as “a member of football team” or “someone in a group exploring an unknown land.” They regarded their learning within a group “a good way of learning” with “friendly, relax atmosphere” and found forum a good way to share their learning experience.

“It’s something that’s accessible to the group.” (student A, case study1)

They also became more independent learners, taking responsibility for their learning as the lecturer expected:

“I think the best thing about Learnwise is that you can actually learn at your own pace once you’re actually given a topic you have a number of sub topics and if you finished one then you don’t have to wait for the teacher to tell you right ok everyone’s finished.” (Student C, case study1)

The students, on the one hand, took responsibility for their own learning and enjoyed the interactive activities within groups, in the other hand, still viewed the teacher as authority figure and seeking the authority /expertise support and motivation from the teacher:

“It gave me a bit of reassurance ... so I don’t have to make demands on [lecturer’s name] if there’s something I’m not sure about for her to help me I can go and do it myself which is very helpful.” (Student B, case study1)

“she’s very good at keeping an eye on slackers so to speak because I haven’t done so well in my previous year and so she knows that I’m capable of doing the course and she’s good chasing me along and giving me a bit of reassurance as well so I couldn’t have done without her presence.” (student A, case study1)

3.1.2.4 Motivation and confidence

Despite the high confidence level reported in the questionnaire, some students interviewed reported that they were not very confident in using computers and Learnwise. However, they found it was better than expected and it was quite easy to get around once they started using or had some practice.

“I don’t really like using them I’m not very keen on the Internet. I don’t have the patience usually and but that is a very user friendly programme and I’m happy to be on it and get through it.” (Student A, case study1)

When students became more familiar with the VLE and became aware of the help available, they felt more confident with their studies:

and “it gave me a bit of reassurance that there is something so that I can go in turn to and look at whenever I want to part of my own time so I don’t have to make demands on [lecturer] if there’s something I’m not sure about for her to help me. I can go and do it myself which is very helpful.” (Student B, case study1)

Student also reported they felt more enthusiastic towards taking the test when they prepared with quiz or mock exams in VLE,

“I was a lot more relaxed and a lot more confident about doing it because I knew that I knew the answers ... I felt a lot better about it I didn’t think that day I hope there’s a fire drill or we can’t get in the school to take that test.” (Student A, case study1)

The teacher’s effort in building the culture of group learning group and developing a learning community also resulted a friendly learning environment in which the students felt relaxed and confident.

“the first thing we did was we like bonded as a class and we all had to go and meet each other and talk and then instantly we just kicked it off whereas my other classes it was a while before we even knew everyone’s name. We just got straight into the teaching.” (Student A, case study1)

“... it was friendly. (...) relaxing atmosphere in that class. It’s a good way of learning.” (Student A, case study1)

The friendly atmosphere motivated students, including those who were not enthusiastic in the subject at the beginning:

“It’s very important and its paid off I mean you know a lot of the kids that started for example there’s a boy in there that started and had no interest at all in psychology and now he’s beating me on all the tests....” (Student A, case study1)

As it shows above students were confident about using VLE in their learning, the problems confronted tends to be technical related issues. The students also talked about support from the teacher and other students which is reported in the following section.

3.1.2.5 Support for students and staff

The lecturer provided help and support from the very beginning, including use of computer, Internet and Learnwise. We have already presented evidence of the support given to students with the content of their work. In addition, the lecturer was the first person students sought help from when they confronted problems or difficulties with Learnwise:

“Cos I know that she’d give me the right answer and I know that I’d be able to do it with her watching me whereas if I didn’t necessarily have the confidence to delve follow the instructions and although I hadn’t looked at the help-site before I thought it might be a bit complicated there’d be terms that I didn’t really understand computer jargon” (student B, case study1)

Students also sought help from other students, which was another positive factor motivating students.

“... anybody in the class. We got a really nice class everyone’s willing to help sometimes they can explain things better than the teacher can ...” (Student c, case study1)

Students, therefore, appear to have felt strongly supported in their unit.

There was also a well integrated support network for staff, through the gateway advisors. These members of staff are a hybrid librarian and computer assistant and they were available on a regular basis. They support lecturers in transforming from traditional classroom teaching into more interactive teaching and learning experiences, mainly technology based.

For each subject, there was a gateway advisor helping lecturers with tutorial materials by supplying information on the websites or helping them produce learning materials on Learnwise.

“I was linked up with a very good gateway advisor who was really pushing it there so ... I had the opportunity ... because before that I created my own website and this is like an extension of that. ... The gateway advisor has shown me how to upload the information and they’ve supported me initially by uploading the information for me.” (Lecturer int2, case study1)

This strong support appears to have been one reason for the high level of engagement in ILT of the lecturer. Furthermore, the lecturer in this case study has herself been involved in mentoring and training other staff and providing an insight into innovative practice.

3.1.2.6 Students attitudes

This section was about students’ attitude towards various aspects in learning with Learnwise. Each of the students interviewed were asked to give opinions and comments on 8 statements provided to them. The table below records student’s attitudes towards each statement given, the number indicates the frequencies of the answer.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Communicating online with the lecturer and fellow students in this module was a real challenge		1	1		1
Online discussions were a good way to learn in this module		1	1		
I like having everything for this module available in one place	1	2			
You have to think for yourself a lot with this kind of learning		1	1	1	
We didn't need a lecturer for this course				1	2
On this module, I have learnt a lot from discussions with fellow students		3			
Working in (VLE) is all about working on your own			1	1	1
Working online in (VLE) encourages me to feel part of the group		2	1		

Table 22: Student interview: Section 3: Students attitude (case study 1)

The attitude of students interviewed towards online communication with teacher and fellow students indicates the different experiences of using online communication. Some students found it easier than the others. The students' attitude towards other questions fell into similar patterns, they especially agree with each other that they have learnt a lot from discussions with fellow students, and they like having everything for the unit in the same place, working online making them feel part of the group. These indicate that the use of Learnwise was well integrated to support the learning model of this unit. All the students agreed that they do need a lecturer in this unit, corresponding to their views reported elsewhere on the teacher's role.

3.1.3 Diaries

The two diaries were designed, to record student activities in the unit, and so to capture their patterns of learning, and use of VLE tools. However, only a limited number of diaries were completed and so the data available was also limited.

Diary 1

9 of total 56 students from case study 1 returned Diary 1. 62 activities were recorded in the diaries, among those, 24 were face-to-face, 16 were using VLE, 9 were paper-related, and 8 were using electronic tools other than VLE. 5 were unclear in terms of format. Among the activities using VLE, 4 were Forum discussions, 1 was doing a quiz and another 1 was reading through the course material.

Diary 2

12 of total 56 students from case study 1 returned Diary 2. Total 92 activities were recorded. Of all the activities recorded, 42 were face to face, 15 Paper based 11 for using VLE and another 11 electronic respectively.

3 VLE tools were recorded being used in the activities – discussion forum, quiz and topic/note area. Of all the 11 activities within VLE, 2 were using forum, 2 working with topic areas, and 1 doing quiz, for the rest of the activities, tools were not clearly indicated. A total 152 activities were recorded in both diaries, 27 activities reported using of VLE in both diaries. Of the three main tools within VLE recorded in the activities, discussion forum was the most often used – 6 times, quiz 3 times and topic area/note 2 times. However, 15 of total 27 activities using VLE didn't indicate which exact components were used, which made it difficult to conclude which was the mostly used tool.

Information from both diary 1 and diary 2 bears out other evidence collected on the learning design and shows that the most frequent learning activities were face-to-face lectures. Access to the VLE was limited in terms of time and location. The VLE tools used included the discussion forum, quiz and notes/ topic area. However, since most of the using of VLE happened within lectures/ class, there will be some overlap of VLE activities and face-to-face ones. Furthermore, 15 of total 27 activities using VLE didn't indicate which exact components were used, which made it difficult to conclude which was the mostly used tool.

In general, we conclude that the information collected on the diaries offered a limited insight into the VLE experiences of the students in case study 1 and only serves to confirm evidence already collected. This was in part because only a few were completed and in some cases the completion was ambiguous, but the main reason for this was that the tool was not designed for the use of VLEs in classroom settings where observation would have been a better method of uncovering the experiences in more detail. We return to this issue when discussing the suitability of these methods for evaluating the use of VLEs in Further Education in section 4.

3.2 Case study 2

Data collected by questionnaires, interviews and diaries from Case Study 2 is presented below, followed by a summary of the case study.

In the same manner as case study 1, two questionnaires were conducted during the term, one at the beginning of the term, the other at the end. 9 of the total 13 students completed the first questionnaire, 7 completed the second one. Those who completed the second questionnaire also completed the first one.

3.2.1 Student questionnaires

Questionnaire 1 contains four sections of questions – students' characteristics, students' confidence levels, their motivations levels and finally students' use of Learnwise. The results reported below follow each of the sections of questions asked in the questionnaire, except the characteristics, which were reported in the students' profile section at the beginning of the report (see section 2.2).

3.2.1.1 Initial confidence levels

Six questions about students' preparedness and confidence in using the Internet, Learnwise and the subject they were studying were asked in this section, at the beginning of the term. The tables and charts present the results in the order of questions asked.

Confidence in using the Internet

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Using the Internet	77.78	11.11	0	11.11	0

Table 23: Confidence in using the Internet, Questionnaire 1, Case Study 2 (n=9)

Nearly 90% of the students reported being very confident or confident with using the Internet. 11% reported having little confidence in it.

Confidence in working and learning online

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Working and learning online	44.44	44.44	0	11.11	0

Table 24: Confidence in working and learning online, Questionnaire 1, Case Study 2 (n=9)

Nearly 90% of the students reported having confidence or strong confidence in working and learning online, 11% of students having little confidence.

Confidence in finding way around Learnwise

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Finding your way around Learnwise	11.11	44.44	22.22	11.11	11.11

Table 25: Confidence in finding way around Learnwise, Questionnaire 1, Case Study 2 (n=9)

55% of the students reported having confidence or strong confidence in finding their way around Learnwise, whereas 11% reported having little or no confidence. Younger students (<18) were

significantly less confident in finding their way around than their older peers (>18, <22), according to the Kruskal-Wallis test. (p=0.045, n=9)

Confidence in obtaining information via Learnwise

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Obtaining information via Learnwise	11.11	66.67	0	11.11	11.11

Table 26: Confidence in obtaining information via Learnwise, Questionnaire 1, Case Study 2 (n=9)

The majority (78%) of the students reported having confidence or strong confidence in obtaining information via Learnwise, 22% of students reported having little or no confidence.

Confidence in taking part in online discussion

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Taking part in online discussions	11.11	22.22	55.56	0	11.11

Table 27: Confidence in taking part in online discussion, Questionnaire 1, Case Study 2 (n=9)

More than half of the students reported neither having confidence nor having little or no confidence with taking part in online discussions, a portion of 33% of the students reported being confident or strong confident, a further 11% reported having no confidence.

The subject you are studying in this unit

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
The subject you are studying in this unit	55.56	44.44	0	0	0

Table 28: The subject you are studying in this unit, Questionnaire 1, Case Study 2 (n=9)

All students reported being confident or very confident with the subject they were studying in the unit.

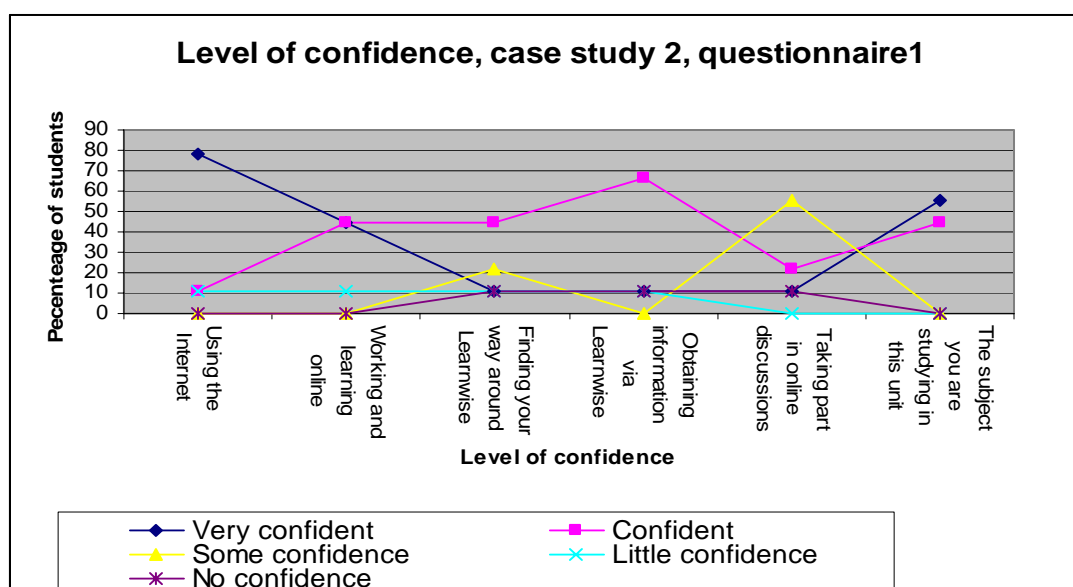


Figure E: Confidence levels reported in questionnaire 1, Case study 2

Previous experience

7 out of 9 respondents from Case Study 2 reported having previous experience with Learnwise, 3 of them had only 1 hour experience each, another 3 had 2 hours each and 1 had 4 hours experience.

Summary

All those students from Case Study 2 who responded to Questionnaire 1 reported themselves to be very confident or confident with the subject they were studying. Most of them were generally confident with using the Internet and working online. In terms of using VLE tools, the majority of the students were confident with obtaining information via Learnwise, over half of them were confident with finding their way around with it, less students were confident with taking part in online discussions. This might be related to the particular parts of VLE tools used in this course or previous experience since most of the students reported having had some experience with Learnwise.

3.2.1.2 Initial motivation levels

In the same way as in case study 1, students were asked whether they agreed with each of a set of statements in order to determine some of the intrinsic and extrinsic drivers motivating the students.

The most important thing is getting good marks in assessment(s)

All students agreed or strongly agreed that getting good marks in assessments was the most important thing.

I am really worried that I may not do well in this module

A third of the students reported that they were worried or very worried about not doing well in the unit; a third were neutral and another third reported that they were not worried about it.

I am interested in the subject matter of this unit

All of the students reported they were interested in the subject matter in the unit they were doing.

I am doing this unit to help me achieve my personal goals

89% of the students agreed or strongly agreed that they were doing the unit to help with achieving their personal goals.

I am good at this subject and expect to do well

Half of the students agreed that they were good at the subject and expected to do well; another half of the students neither agreed nor disagreed.

It's important to do better than others in the group

Only 11% of the students agreed that it was important to do better than others in the group, whilst the rest of the students neither agreed nor disagreed.

I am only doing this unit because I need the credits

67% of the students didn't agree that they were doing the subject only because of the credits, 22% of the students neither agreed nor disagreed.

These results on motivational drivers indicate that the group are well motivated by both intrinsic drivers such as personal goals and the subject itself, together with extrinsic drivers such as assessment. There was little support for closed goals such as getting the credits but it is interesting that this group expressed some ambivalence about competition with others in group. This might be exaggerated because of the size of the group and imposed intimacy that results from that but still seems unexpected in a subject such as Art and Design. The full results of this question can be found in Appendix 1.

General motivational levels

On a 1-10 scale, students were asked to indicate their current level of motivation by marking an X on a scale. The means score for the group was 7.78. Over half of the students ranked their motivation level at 8, 22 % ranked at 7, 11% ranked at 10, and another 11% ranked at 6.

%	0	1	2	3	4	5	6	7	8	9	10	Mean score
Beginning of unit	0	0	0	0	0	0	11.11	22.22	55.56	0	11.11	7.78

Table 29: General motivation scale, Questionnaire 1; Question 9, Case Study 2 (n=9)

It appeared that the students were highly motivated at the beginning of the unit. All students rated their motivation level at above 6, two thirds of them rated 8 or above.

Correlation tests were run to examine the relationships between students' confidence levels and the different motivational drivers and look for significant pairings. These tests found that students who had high confidence levels in using the Internet ($p=-0.671^*$, $n=9$), working and learning online ($p=-0.664^*$, $n=9$), taking part in online discussions ($p=-0.713^*$, $n=9$) appear to be less worried about not doing well in the unit than those with low levels of confidence. Those who felt confident with online discussions also felt they were good at the subject and expected to do well ($p=0.699^*$, $n=9$).

3.2.1.3 Using Learnwise at the beginning of the unit

Students were asked about their early experience of use of Learnwise in this unit – the induction, their feeling towards using it and the support they anticipated of using it in their learning.

Have you had any introduction to using Learnwise?

8 students out of 9 reported having some kind of induction to using Learnwise. 7 of them were given by lecturer or with librarian and 1 was explained by fellow student.

Have you got any worries about using Learnwise?

4 students reported being worried about using Learnwise. They found it complicated to use and difficult to find their way around with it.

Is there anything about Learnwise which you are looking forward to?

One student reported looking forward to learning a new subject, and one looking forward to online discussions. However, there was also student reporting not knowing enough to look forward to anything.

Is there anything about Learnwise which you are not looking forward to?

Some students reported not being particular keen on using Learnwise or computer, and not looking forward to stuff they didn't understand.

What kind of help or support is there for you in working with Learnwise?

6 students reported lecturer was available to help and support, 3 reported notes were available to help and 1 reported easy to print off was helpful.

Further comments

Some students felt not very confident with using the computer or Learnwise. They felt they needed more help and explanation on how to use them. Other students felt they needed some push to use Learnwise and to use it in more subjects.

To summarise, most students reported having had some kind of induction in using Learnwise, mostly given by a lecturer. However, students were still worried about using it and found it complicated.

Some of them suggested that further explanation was needed. Some students reported looking forward to studying the new subject matter with Learnwise and participating in online discussion, others reported being not very keen on using the computer or VLE in their learning. Most of the students reported that having a lecturer who would be available to support and help if any problems occurred when using Learnwise would be helpful. Students found that notes in Learnwise were helpful in their learning.

Questionnaire 2 contained three sections: questions about students' motivation levels, confidence levels and their experience using VLE, in corresponding to questions asked in questionnaire1.

3.2.1.4 Motivation levels at the end of the unit

This section contained questions about general motivation level and specific motivation factors.

General motivation

%	0	1	2	3	4	5	6	7	8	9	10	Mean score
End of unit	0	0	0	0	0	0	0	57.11	42.86	0	0	7.64

Table 30: Questionnaire 2; Question 1, Case Study 2 n=7

The mean score of students' motivation at the end of the unit was 7.64. The scores of the entire group of respondents ranged from 7 to 8, with slightly more students rated at 7 than those rated 8.

These results show that general motivation of the students at the end of the unit remained at the same level as at the beginning of the unit; however, the scores converged to the middle at either 7 or 8, compared to the score range from 6 to 10 at the beginning of the unit.

Factors affecting motivation levels

In this question, students were asked students how the given factors affected their level of motivation.

Factor N=7	Negative %	Neither %	Positive %
Personal needs	0	100	0
Fellow students	0	71.43	28.57
Lecturer	0	28.57	71.43
Course admin/regulations	0	71.43	28.57
Physical location	0	42.86	57.14
Help and support from lecturer/other	0	14.29	85.71
Help and support from VLE or Computer	14.29	28.57	57.14
Working online	14.29	14.29	71.43
Communicating online	14.29	71.43	14.29
Access to computer	14.29	57.14	28.57
Technological issues	42.86	42.86	14.29

Other	0	0	0
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Table 31: Questionnaire 2; Question 2 Case Study 2, n=7

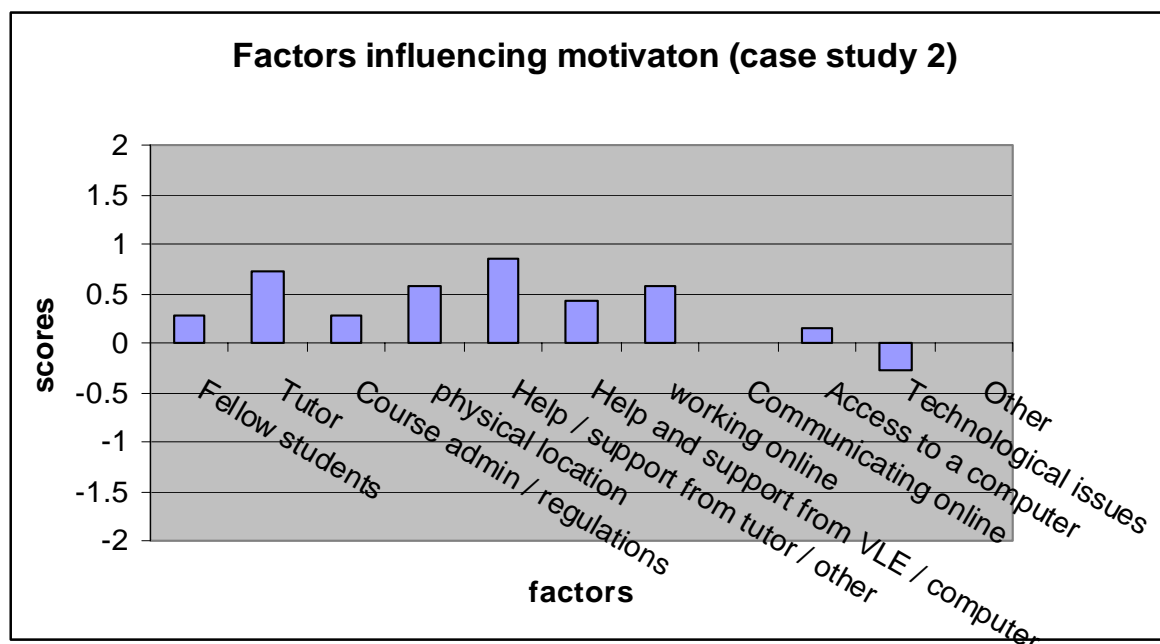


Figure F: Factors influencing motivation - questionnaire 2: question 2: (n=7) case study 2

There was a striking difference here between the human and physical environmental factors and the more technological ones reported by students, where the human and physical factors were either reported to have made no change or increased motivation, whereas a more even spread was in evidence for the technology related factors – perhaps suggesting a greater sense of ambivalence towards using technology amongst these students..

29 % of the students reported fellow students having been positive motivating factors. The remaining 71% of the students reported it had no effects to their motivation. 71% of the students reported lecturer having been positive motivating factor, the rest 29% reported having no effect. In addition, help and support from the lecturer and others was registered by 85% of the students as a positive motivating factor, or no effect to the rest of the students. No student reported that personal needs affected their motivation.

Physical location was also reported as a positive motivating factor to 57% of the students, no effect to the rest. Also, course administration and regulation was (perhaps surprisingly) registered as a positive motivating factor by 28% of students

Within the technology related factors help and support from VLE or computer was a positive motivating factor to 57% of the students but a negative motivating factor to 14% of the students. However, working online was a positive motivating factor to 71% of the students, a negative factor to 14% of students. Communicating online was a positive motivating factor to 14% of the students and a negative motivating factor to another 14% of them. Access to the computer was a positive motivating factor to 29% of the students, and a negative motivating factor to 14% of the students. Technological issues were a positive motivating factor to 14% of the students but a negative factor to 42% of the students. This suggests that students may be motivated by the idea of working with a VLE but less sure of the mechanics of the process as a large percentage report that working online was positively motivating but less of them reported being motivated by other aspects of the technology. It may also be that in using the term “working online” students may interpret this as being broader than the work they have done in class on the VLE and may include their own use of the internet at home for example.

3.2.1.5 Confidence levels at the end of the unit

In this section, the same 6 questions about students’ readiness and confidence with using the Internet, Learnwise and the subject they were studying that were asked at the beginning of the term,

were asked again at the end of the term, in order to compare the students confidence over the relevant aspects at different stages of using VLE in their subject learning.

Confidence in using the Internet

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Using the Internet	57.14	28.57	0	0	14.29

Table32: Confidence in using the Internet, Questionnaire 2, Case Study 2 (n=7)

76% of the students reported being very confident or confident with using the Internet. 14% reported having no confidence.

Confidence in working and learning online

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Working and learning online	42.86	28.57	14.29	14.29	0

Table 33: Confidence in working and learning online, Questionnaire 2, Case Study 2 (n=7)

Over 70% of the students reported having confidence or strong confidence for working and learning online, 14% of the students reported having little confidence.

Confidence in finding way around Learnwise

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Finding your way around Learnwise	14.29	57.14	28.57	0	0

Table 34: Confidence in finding way around Learnwise, Questionnaire2, Case Study 2 (n=7)

Over 70% of the students reported being confident or very confident with finding their way around Learnwise. Nobody reported having little or no confidence.

Confidence in obtaining information via Learnwise

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Obtaining information via Learnwise	0	85.71	0	14.29	0

Table 35: Confidence in obtaining information via Learnwise, Questionnaire 2, Case Study 2 (n=7)

Over 85% Students reported having confidence with obtaining information via Learnwise; the rest reported having little confidence.

Confidence in taking part in online discussion

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
Taking part in online discussions	14.29	28.57	28.57	14.29	14.29

Table 36: Confidence in taking part in online discussion, Questionnaire 2, Case Study 2 (n=7)

43% of students reported having confidence or strong confidence with taking part in online discussion, 28% reported having little or no confidence.

The subject you are studying in this unit

How confident are you? %	Very confident	Confident	Some confidence	Little confidence	No confidence
The subject you are studying in this unit	42.86	42.86	14.29	0	0

Table 37: The subject you are studying in this unit, Questionnaire 2, Case Study 2 (n=7)

85% of the students reported having strong or very strong confidence with the subject they were studying.

In summary, the levels of confidence for all these aspects were very high and students were clearly feeling confident in their studies overall.

3.2.1.6 Using Learnwise at the end of the unit

At the end of the questionnaire 2, the students were asked questions about their experience in using Learnwise – the problems and help they had experienced, the most beneficial aspect and most difficult aspect in using it.

Have you had any problems working with Learnwise?

Three students reported having difficulties in finding the information needed, logging onto it, and there was some confusion with using it.

What kind of help or support is there for you in working with Learnwise?

Seven responses to this question were received. Two students reported having support and help from lecturer or lecturers, within the class. Three reported notes or materials available on Learnwise were helpful, particularly to students who missed the class. Students also reported that information or instructions on Learnwise were helpful and one student reported on a specific event, where the VLE had been a helpful tool in supporting his/her presentation. Conversely, one student also reported that there wasn't much help available, especially when they were out of the class.

What aspect of Learnwise helped you learn most?

Six out of seven students reported that the VLE had been some kind of help to their learning, mostly referring to the information available on the Learnwise, - the range of it, notes and the slide show.

Which aspect of Learnwise made it difficult to learn?

Three students reported they didn't have any problems. One reported having difficulty finding the information needed, one reported a slow connection making it difficult to learn. One of the students felt that all aspects were difficult to him/her.

Anything else you would like to say about this subject.

One of the students commented on the layout of the design and would like it be simplified.

Summary

Students from Case Study 2 reported that the learning material, notes and information available from Learnwise had been helpful to their learning, however, there were difficulties finding the exact information they needed. There were also technological problems such as connections and login problems etc. adding to the difficulties for the students using Learnwise. Lecturer was helpful when students were having difficulties, however these were mostly available within the class, and there was a student reported that it was confusing and difficult when no help was available out of class. It is also worth noting that there was some confusion between the VLE and the use of Powerpoint which was delivered through the VLE, this will also be highlighted in interview data.

3.2.1.7 Changes over the time

Wilcoxon Signed Ranks Test was run to examine the changes of student's confidence in using the ICT and Learnwise in their learning and the subject. No significance differences were found.

How confident are you?	% Very confident		% Confident		% Some confidence		% Little confidence		% No confidence	
	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2
Using the Internet	77.78	57.14	11.11	28.57	0	0	11.11	0	0	14.29
Working and learning online	44.44	42.86	44.44	28.57	0	14.29	11.11	14.29	0	0
Finding your way around Learnwise	11.11	14.29	44.44	57.14	22.22	28.57	11.11	0	11.11	0
Obtaining information via Learnwise	11.11	0	66.67	85.71	0	0	11.11	14.29	11.11	0
Taking part in online discussions	11.11	14.29	22.22	28.57	55.56	28.57	0	14.29	11.11	14.29
The subject you are studying in this unit	55.56	42.86	44.44	42.86	0	14.29	0	0	0	0

Table 38: Confidence over the time, Case Study 2

The Wilcoxon Signed Ranks test was run to examine the changes of students' confidence level over the time. No significant difference was found between confidence levels at the beginning of the unit and the end of the unit. There was a slight rise in the confidence over finding one's way around Learnwise which indicated the gain in experience over time and a slight drop in taking part in online discussion – this may be related to the fact that the tool was not actually used in the unit learning.

Level of motivation

The students' general motivation at the beginning of the unit remained at same level as that at the end of the unit. However the range of students' motivation levels converged to between 7 and 8 from the previous range which was 6 to 10, indicating a similar level of motivation for all students at the end of the unit.

Use of Learnwise

At the beginning of the unit, half of the students voiced their concern in questionnaire responses about using Learnwise, in spite of the introduction most of them had received. They were aware that they could seek help and support from the lecturer. Some of them did find the VLE was helpful to their learning. At the end of the unit, most of the students found VLE to be helpful in finding information and learning materials. The problem and difficulties they confronted were mostly technology-related issues, such as access and logging in problems. The students found the teachers were as helpful as they anticipated however; help outside the class was limited.

3.2.2 Interviews:

3.2.2.1 Learning model

The lecturer reported that the Case Study 2 unit was developed for students to study the skills of artists and designers in communicating a message and transferring it to their own practice. To be specific, it aimed at improving students' *mark making* ability - planning how they can produce work that communicates either how they're feeling or communicates a certain message - using text while understanding how it could be used in a visual manner, as well as using ICT in their creative artwork.

The lecturer intended to adopt a constructivist approach to teaching and learning. She aimed to build upon skills the students already had and expected them to explore and make connections with those skills. They were guided but they were not led as much as at the earlier stage. The teacher saw it as very important that students have practical experience as well as knowing theory.

The case study set out to encourage students to experiment and practice, based on their previous skills and new research into artists' works to which they were introduced. They were also encouraged to learn in a group by reflection and discussion.

Part of the unit was taught in the form of teacher-led lectures blended with students' presentations, brainstorming, discussions, interaction between teacher and students and their practical experience etc. Content and information of the unit were available from the VLE. The teacher checked students' engagement with assessment methods in the classroom. An important part of the unit involved students' learning by practising; they were encouraged to try use different ways and materials to create their own artwork by giving presentations to others.

"... a large percentage of this unit will be studying how other people use their skills to communicate a message." (Lecturer Interview 1, Case Study 2)

"... at this stage we're expecting them to explore and find out and to make connections. Now, that is guided but they're not being led as much and it's certainly not rote learning." (Lecturer Interview 1, Case Study 2)

"I'm keen for the students to use text with imagery because I'd like them to see how they can use what they perceive as a new technology using IT and ICT with what they consider to be fairly traditional mark making methods and materials, so they can see that the two can be used together and that they can actually create something that breaks those two barriers that somehow meets together." (Lecturer Interview 1, Case Study 2)

The VLE was used as a platform to present and deliver visual effects of artwork which the unit was about and it was also a place to store the images and learning materials and resources which made available for students to review or study on their own. Students could view or discuss images during lectures and practice with collage material or try to create their own artwork using the computer. VLE was also used as an access point to connect to the Internet and for the use of PowerPoint and/or other computer packages used in the class on the interactive whiteboard.

"In the classroom I'll be using the interactive whiteboard and we use the VLE to show and demonstrate materials on there." (Lecturer Interview 1, Case Study 2)

The main reason she used it was to

"make sure the materials are there for the students to refer to ... as it is used as a support for those students who have perhaps missed the class or haven't been in. It's also a great way for me to show students where the facilities are." (Lecturer Interview 1, Case Study 2)

"I can show them that this is the VLE this is where the materials are stored and they get used to actually researching it in that way. I will be putting the week-by-week handouts on the VLE. I'll put the assignment on the VLE and also the learning object on [it] regarding collages and photomontages which the students will then use again through the VLE." (Lecturer Interview 1, Case Study 2)

Students could:

"Go to the learning centre to research things on their own. Sometimes they will go and study together but that's not something I've directed them to do. That's a choice... Usually, if they go to the Learning centre to work on the VLE, they're doing it off their own backs because they need to or out of a conscientious attitude really." (Lecturer Interview 1, Case Study 2)

The material being made available via the VLE and the use of it was also intended to accommodate different learning needs and learning models of the students:

"They've become accustomed to the fact that it is their responsibility. If they want the materials they need to go and look for [them] ... Some of the groups are environmentally conscious and they won't print out, they'll make notes. ... Some learners don't always like the group activity and they would like to reflect and look at things on their own, and I think that's perhaps ideal for those learners that find it difficult. They need the visual, but sometimes they find that the discussion can be a distraction and they just want to sit and listen on their own." (Lecturer Interview 1, Case Study 2)

The lecturer was confident in using the basic tools of Learnwise although there were some more advanced features she has yet to explore. Her main reason for using it for the accessibility and ease of use. When asked about how much the VLE was being used across the college, she felt that this was still in its infancy:

"I don't think at the moment it's embedded enough in subject areas. It hasn't quite filtered out; it's embedded in the learning resources structure in the learning centres and the key areas where learners will access the computer there. ... I don't feel it's embedded enough for, say, perhaps other A level subjects." (Lecturer Interview 1, Case Study 2)

It was the second year of the college's ILT champion scheme. In the first year, the champions became familiar with the resources and structures, and, in the second year, they worked with a support team working together on using the material with ICT. Also, there is staff training on using VLE. The e-learning strategy was also part of the process. The target for the next year was for lecturers to transfer a proportion (as yet undefined) of their material onto the VLE for learners to access.

"It was largely positive. I'd say it's the key thing that everybody says 'oh I don't have the time' and many lecturer don't realise if they are actually creating resources the next step is to upload [them]. I think it's actually a mindset of 'how can I use this facility in a new way?' in fact, now that we've got more interactive whiteboards in this department it does actually encourage people to use the VLE and I want you to go to this point' all the time, so that has made a difference. But I'd say it's still a very small proportion of the department using the VLE, putting their materials on there." (Lecturer Interview 1, Case Study 2)

During interviews, the 3 students highlighted a number of positive examples of the use of the VLE in their work. Two students highlighted using the VLE as a way of accessing PowerPoint and giving a presentation, the third focussed on finding critical information on assignments:

Yes the presentation I did. It helped it me a lot when I had the big screen to show the other students my presentation ... do it on paper because its much easier so I could just do my work on the PowerPoint then go through to the VLE to show it on the big screen (Student B – case study 2)

Being able to find the assignments is a really good part of it because if you lose them you can just go on the VLE and they're there for you to print out again (Student C- case study 2)

When asked about negative incidents, the students felt there was nothing negative about their experience with the VLE directly, but one student indicated that access to the internet was sometimes a negative experience:

"About 2 or 3 times during this unit, I'd just be researching something and um some sort of error comes up and the internet goes off and I lose the website I was on and have to go searching off again"(Student B – case study 2)

And another highlighted slow connections:

"Don't know if it's relevant but um the slowness of the computers, that they can get quite slow and it does annoy you" (Student B – case study 2)

One other thing to note here is that students' responses and choices when asked about critical incidents, indicate that they do not distinguish between the different tools – the VLE, the interactive whiteboard, PowerPoint and the Internet and see it all as a connected, as shown by the following dialogue with student A

Int: So first of all you, the question is did you use Learnwise on this unit?

Student: Yeah I did

Int: Ok what was it used for?

Student: PowerPoint things, the presentation we did for um we had to research an artist and use PowerPoint we click on the interactive whiteboard and it comes up with different things "

(...)

Int: Ok, ok, right so can you tell me about a really positive experience, have you been able to think of one that you've had where you were using the VLE? Something that really helped your learning or something that you felt was really cool or interesting or made it more exciting

Student: Yeah one I've just described the PowerPoint one, it was a presentation (Student A – Case study 2)"

This was also true of the other students interviewed:

"..... if you lose your place or get muddled up you start getting more nervous but if its on the VLE its all in order, you've just got to touch the screen to get your way through it "(Student B – Case study 2)

This may be partly an issue about terminology and perhaps the questions in the interview were assuming too high a level of understanding but nevertheless, the fact that students see the various tools as a seamless whole is something that was unexpected with possibly both positive and negative effects. We return to this issue in section 4.

3.2.2.2 Student and tutor roles

During interviews at the end of the module, students were asked about the role of the lecturer and given a number of examples to choose from. Generally students viewed the teacher as "someone to guide me through an unknown land", a mixture of someone guide through an unknown land and a "friendly expert", and somebody who was running a help line.

"[Lecturer] used it to explain things ...how work's done - she used it to describe the brief and it makes it much easier." (Student A, Case Study 2)

The lecturer saw her role as a guide, guiding and directing students to specific materials that she created or built upon others' work.

"I see it very much as resource ... I think my role still comes first as I need to introduce students to the VLE and where the information is and, at the end of the day, it's me who puts the information on. So I'm still very much guiding the use of the materials there. It's a bit different from sending students to the Internet where sometimes you don't feel that you have as much control or guidance because the students can look pretty much at anything ... Here, I can direct them to specific material that perhaps I created or I researched myself." (Lecturer Interview 1, Case Study 2)

The lecturer regarded her role as a teacher as being between a facilitator and a guide. She saw herself as part of the learning resources, and played a role preparing for the content and information in the VLE and acting as a support and guide to the students in their use of the materials.

As with Case Study 1, students from Case Study 2 generally viewed themselves as "someone in a group exploring an unknown land" especially with Learnwise with which they were not very experienced in the beginning. The lecturer expected students to become independent learners and understand their own learning styles and eventually manage their own projects.

"...(by) breaking down the activities, I then could put some ownership onto the students to follow through, but at least they had a lead to start off with, something to refer to and to guide them along. And at each stage, the next activity became more of their own, more complex and the learners had to take that on board so I think it's more of a facilitator. I had the structure ready and the PowerPoint ready that enabled the students to actually pace the work through all the tasks, so it did end with more of an individual student-led outcome." (Lecturer Interview 2, Case Study 2)

The strategy within the department was to gradually help the student become an independent learner.

"In year one, they are encouraged to experiment, but their opportunities are reduced so the range of stimuli might be limited until they get to a stage where they can manage their time and can manage their studies a bit better, so much like reflective practitioners. After ...

learners gradually are given more opening so they can experiment and take risks and find out 'I work well in that manner' or 'that didn't work well for me'. Come term 3 and module 3, the learners are expected to take more initiative, so it's gradually them becoming more and more dependent and understanding their own learning styles so they can actually manage their own projects." (Lecturer Interview 1, Case Study 2)

"I don't need to tell them in most instances and, in fact, they're asking me when is such and such going to be on the VLE rather than me saying don't forget."(Lecturer int2, case study2)

Students' views in interviews supported this and showed they were taking responsibility for learning, supporting each other and getting accustomed to using the VLE.

"... we had to research an artist and to use PowerPoint. We click on the interactive whiteboard and it comes up with different things ... You can be looking, you can edit things." (Student A, Case Study 2)

"We've used it for the assignment brief to check over our work to make sure that we've done everything that we need to, and we've also used the Internet through it as well to research." (Student C, Case Study 2)

3.2.2.3 Motivation and confidence

In spite of the high level of confidence reported in using ICT and VLE, confidence in using the computer and tools were varied, some students were more confident than others, and successful experience in using it maintained the motivation and confidence level.

"...It helped me a lot when I had the big screen to show the other students my presentation ... because it's much easier, So, I could just do my work on PowerPoint then go through to the VLE to show it on the big screen." (Student B, Case Study 2)

The lecturer found that some students did not having the computer skills they were expected to have, and therefore lacked confidence and motivation to try to use the computer:

"There is an assumption that all of this age group are computer literate and very happy to use computers and it really isn't the case...There are students with an aversion to using computers and any kind of new technology..." (Lecturer Interview 2, Case Study 2)

However, those who found themselves nervous about using the computer initially, after trying to use it, had a good experience which made them more confident with it, and more motivated.

"...the one I used nothing went wrong. It was good, ... Sort of a bit more confident now using it. ... I thought 'I can do that again sometime.'" (Student A, Case Study 2)

"I was enthusiastic to do it anyway but it probably was because it made me more confident with the VLE, how to use it on the big screen and stuff. So, it was more like going to show my presentation rather than being scared about the piece of paper I was holding." (Student B, case study2)

3.2.2.4 Support for students and staff

Support for both staff and students can come from different sources and for different purposes. For staff, there can be institutional support in terms of staff development and support in developing both technical and pedagogical skills to deliver online learning. Student support is often in the form of induction and ongoing lecturer and technical support.

Support for students

The lecturer and students reported that the lecturer has been supportive to students in the use of Learnwise. Like Case Study 1, help and support from the lecturer was the largest positive factor motivating the students' learning.

The lecturer gave the introduction to students and showed the students how to use VLE and computer tools. Students in Case Study 2 reported that they had made PowerPoint presentations via VLE for the first time in their lives, with the lecturer showing them how to do it step by step.

"... there's communication between me and the lecturer because she explained it well, then there's communication between me and the computer. [It was] easy to read; when you pressed help on things it showed clearly how to use [them] which I found quite helpful." (Student A, Case Study 2)

"My friend helped me to move slides and things because it was only that little bit that I got stuck on. That was the only part of the package that I couldn't do..." (Student A, Case Study 2)

However, support for students outside the classroom was less well developed. In the Learning Centre, there was a librarian who was able to help the students navigate, but in the main the expectations were that students would receive support in class and currently outside working and working at home are limited, so therefore the support is limited too. However, the lecturer was also concerned about non-attendees:

"There is a problem especially if a student is not a regular attendee or is not computer literate. It could be a damaging thing on their confidence if they can't find what they want." (Lecturer Interview 2 Case Study 2)

Staff support

The college had an ILT Development Unit, which gave lecturers advice, and there was always a help line run by the same unit when there was a problem.

"I couldn't have done it without them, to be honest... We hit problems every now and again, but at least there's a team there, so you'll hang on and they'll chase it up for you." (Lecturer Interview 2 Case Study2)

There was also 'champions' strategy, which provided lecturers with support, working in teams, learning and discussing and demonstrating the use of the materials and resources related to VLE. Training was also available for every member of staff who lectures who did not know about the VLE or how to use it was in place. The lecturer interviewed was an ILT champion.

Future developments

Both the lecturer and students identified access and connection speed as a somewhat problematic area

"The only technical issue we had is really not to do with Learnwise, but the college server. I could not access it, neither could the students, and that made it difficult for the continuity in class. And that's when you realise how much you rely on that system." (Lecturer Interview 1, Case Study 2)

When asked about the way in which she would like Learnwise to develop, the lecturer reported:

"I am still not completely happy with the visual layout of it and the way learners have to navigate the VLE to get to information ... The actual opening of documents and looking at documents to me seem quite off-putting particularly for some of them that do come in and they are not completely happy with technology and using computer interfaces ..." (Lecturer Interview 1, Case Study2)

She hoped Learnwise could be developed and improved to be used in a more holistic and integrated approach with improved assessment features

"I'd like it to become more coherent so I can actually be able to follow up on students completing and looking at the VLE so I can actually check that remotely. That is possible, but if you're putting your own materials on, it's very difficult to get some kind of measurement at the end of how well we've done and what we've looked at. ... If there's a way that the VLE can actually have the assessment material in there as it were, in a cleaner cycle, that would

be great so I can track and perhaps use the assessment more. ” (Lecturer Interview 1, Case Study2)

3.2.2.5 Students attitudes

This section was about students’ attitudes towards various aspects in learning with Learnwise. The students interviewed were asked to give their opinions and comments on eight statements provided to them. The charts below show the attitudes of students towards each of the statements.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Communicating online with the lecturer and fellow students in this module was a real challenge		1	1	1	
Online discussions were a good way to learn in this module				1	1
I like having everything for this module available in one place	1	1	1		
You have to think for yourself a lot with this kind of learning	1	2			
We didn’t need a lecturer for this course				1	2
On this module, I have learnt a lot from discussions with fellow students		1	2		
Working in (VLE) is all about working on your own			1	2	
Working online in (VLE) encourages me to feel part of the group		1		2	

Table 39: Frequency of participants’ responses to attitudes question - Case study 2:

Most responses followed a similar trend with students choosing the same or adjacent options. However, the students showed a wider range of attitudes towards the statement “*working online in Learnwise encourages me to feel part of the group*” suggesting there might be different learning styles among the 3 students. However, the varying attitudes towards “communication online with the lecturer and students was a real challenge” possibly indicates that some students have difficulties using online communication tools, though the fact that there was very limited use of communication tools in this case study means that students frame of reference may have been at variance with the interviewers, implying that these attitudes are more suggestive than real. .

Their attitudes towards the other statements fell into a similar range. They all disagreed that they don’t need a lecturer in this unit and that online discussion was a good way to learn. They all agreed that they have to think a lot for themselves in this kind of learning.

3.2.3 Diaries

Students were asked to keep an activity diary for two separate weeks, during the module. The number of diaries returned in case study 2 was good.

Diary 1

Six out of a total of 13 students returned Diary 1. In all 22 recorded activities, 10 were face to face (total 545 minutes), 5 were using VLE, another 5 were using electronic tools other than VLE such as the Internet or a computer, and 3 were using paper-based learning materials. Two activities recorded did not clearly indicate which exact way the study was conducted.

Of the five learning activities within VLE, two were using the whiteboard and 1 was using quiz. Others did not indicate the specific tools.

Diary 2

Eight students returned Diary 2 and reported a total 41 activities. Thirteen were done using electronic tools other than VLE, 12 were done face to face, and 6 were using VLE. Five of them were not indicated with any specific category of style.

VLE tools recorded in the learning activities included whiteboard and quiz. Whiteboard was reported being used 4 times of the total 6 uses of VLE, while quiz was reported twice.

Summary

Access to VLE was limited in terms of time and location. Use of VLE tools reported in diaries was limited to the quiz and whiteboard¹.

Of the total 66 activities recorded.

- There were 11 times reported using of VLE in both diaries. All were conducted within class except 2 in the Learning Resources Centre in the campus.
- There were two main tools within VLE recorded in the activities. Interactive whiteboard was the most often used – 6 out of 11 activities recorded using VLE, and quiz 3 of 11.
- However, since most of the using of VLE happened within lectures/ class, there was an overlapping of VLE activities and face-to-face ones.

4. Conclusions

The two case studies presented in this report both presented well defined learning models, with a clear and well planned role for the VLE. Students responded well to the use of the VLE in both case studies and reported mainly positive experiences both in questionnaires and interviews. There were some concerns and lack of confidence expressed about technology more generally and there was some confusion over tools that were in use.

Case study 1

Case study 1 presented a learning model, which intended to be student-centred, and to involve students actively in their learning. The aim of the unit was to help students build foundation knowledge and skills in Psychology, which included research skills and understanding psychological theory and its application to real life. The learning model reflected social constructivist learning theory, which identifies interaction with peers and with tutor as playing an important role in learning and knowledge construction, together with an androgogical approach to encourage independence and self reliance. The learning model was transferred partially to the VLE (one third delivered using the VLE), which provided learning resources, course information, as well as web chat, a forum for discussion and quizzes. Students reported that the VLE had been particularly helpful in finding course content, researching, doing quizzes and sharing opinions via discussions and chatting. These gave the students scaffolding to becoming more independent learners themselves as well as learning through collaboration with others to construct their own knowledge. Communication online was also registered by students as a high positive motivational factor. The students' confidence levels in using all VLE

¹ As previously mentioned , students did not distinguish between the VLE and other ICT tools

tools increased significantly over time. This shows that students grew accustomed to the VLE and suggested they found it was useful. Help and support from lecturers certainly contributed greatly to the change over the time, as it was the largest positive motivation factor to students. It was more so in the case of older students who were less confident in taking part in online discussion than younger peers. Help and support from the VLE, communication online and working online also registered as positive factors motivating students. While technological issues and bureaucratic course admin were negative factor in student's motivation.

Student access of the VLE was all classroom based. Due to these limitations in terms of time and location, it was not really relevant to investigate the online and offline time students spend working on the VLE. It was generally used in the open plan computer area with the lecturer present. Student diaries collected, although not in a big number, indicated that the VLE tools used included the discussion forum, quiz and notes/ topic area.

The lecturer intended to change the role of students and herself from traditional roles, which matched the expectations of Prosser & Trigwell (1999), Goodyear (2001), Jones (2003) view of student – lecturers role changes to ensure a successful e-learning design. She saw her role as a facilitator or guide and tried to shift students to the centre of learning and teaching. Students, on the one hand, found it helpful and enjoyable working and learning online and participating in the discussion forum and found themselves confident in this kind of learning. On the other hand they still saw lecturers as expert figures, owners of authority and control.

It was clear that students sought support first of all from their lecturers when they needed help and evidence showed that the lecturer was the highest motivating factor to students in their studies and lecturers saw themselves as source of support. Training and demonstration of the VLE had been provided; nevertheless even confident students sought special support from their lecturer. Fellow students and help and support from VLE were also positive motivating factors. However, help and support out of the classroom was not thought to be sufficient, which could also because of the restricted access.

The lecturers had access to a range of support, including colleagues and a gateway advisor, however it seems in this case, the lecturer was herself offering support to others rather more often than receiving it and has taken the lead in her college in developing innovation through the use of a virtual learning environment.

Case study 2

Case study 2 presented a constructivist, cognitive apprenticeship model, explicitly undertaken to involve interactions and active participation by students in their learning and use of the VLE to provide resources. It focused on reflection, discussion and practice.

The unit was aimed at improving students' ability to produce artwork that communicates messages by learning how other artists work, using the Internet and other electronic resources to develop their previous skills and experience, students learnt and develop new skills by active practice and experiment.

Naturally, as an arts and design course, the unit was only partially delivered by a VLE. The VLE was primarily used to provide resources and to present and store visual artworks which the student could refer to later. The lecturer also used an interactive Whiteboard, which enabled the participation of both the teacher and students. However, student access to the VLE was limited to within the classroom or college resource centre.

In a similar way to case study 1, the teacher viewed herself as a facilitator and a guide, and expected students to become independent learners whilst students regarded the teacher as an expert with authority, guiding them through the unknown VLE resources. These slight conflicts over roles (in both studies) are not unsurprising and were also present amongst HE students who were asked the same questions. Students showed a willingness to work independently but still looked to the lecturer as the main source of advice and expertise.

Most of the students had received induction about Learnwise and were confident with using the Internet, working and learning online and using Learnwise tools, including online discussion. However, the online discussion tool was not used at the time and all the communication was conducted face-to-face in the classroom or study centre. Access to the VLE was limited in terms of time and location, as

well as the use of VLE tools. Of the total 66 activities recorded in student diaries, 11 of them were using the VLE but all were conducted within class or the learning resources centre on the campus.

Despite the limited access to the VLE, students found it useful; working online together with the help and support from the VLE were largely seen as positive motivating factors to students. While the highest positive motivating factor was help and support from lecturer. Unsurprisingly, students went to the lecturer for help first when they needed help. Often students with little computer skill or experience needed special support in the use of the computer and Learnwise. There was a lack of technical support to students at college level out of the classroom. Furthermore, the students' VLE inductions were largely focussed on the technology, and not necessarily on online study skills, which suggests a gap in student support at College level.

The lecturer was actively involved in using the VLE in teaching and had access to a range of support, including technical support from individual, the VLE development support team and colleagues. However, as the lecturer mentioned there was a resistance among lecturers to using the VLE, which may suggest more regular and pervasive, support and training might be needed to support all lecturers.

In both case studies, but particularly case study 2, there were students who appeared unclear about the different tools they were using - where the boundary between the VLE, the computer and the Internet lay, for example. Whilst this is not necessarily problematic in day to day usage, it may reveal that the students have a fairly superficial understanding of the ways in which they are interacting with these tools and what their purpose is. More focus on this issue during induction may allow the students to investigate the tools they are using at a deeper level and begin to experiment and become more independent in their use of technology as well as the subject itself.

4.1 Piloting methods in FE

When the SOLE project was originally planned, it was with the aim of investigating student online learning experiences in Higher Education. Subsequently as part of negotiations over a bid for additional funding, the Joint Information Systems Committee (JISC) requested that in addition to the ten higher education studies we should undertake two further case studies in Further Education. This was agreed, with an expectation that the case studies be considered as pilots, in particular piloting the methodology as it was recognised that there are sector specific and contextual issues, which might impact on the case study and instrument design. This section therefore sets out our evaluation of the SOLE methodology for use in Further Education case studies with some recommendations for further development.

The original design of the various instruments² was developed from the aims, objectives and research questions for SOLE and based on a number of assumptions, drawn from experiential knowledge and initial literature review. Firstly, students would undertake a significant amount of their work on the VLE (if not all) outside of the classroom. Secondly, they would have access to the VLE from home or other contexts outside of the class and therefore observation of students at work would not be possible using any direct means. Thirdly, students would recognise the distinct nature of the VLE in comparison to other tools. In the higher education case studies, these assumptions proved to be largely correct: Students were required to use the VLE mostly outside of the classroom, there were no significant access issues and students were familiar with the VLE and its functions and use.

When preparing to undertake fieldwork at the FE sites, members of the team and an FE expert with experience in developing materials for the sector reviewed the instruments. Questions were redesigned and wording was simplified and adapted to the FE audience³. This did improve the design making it more accessible to the FE students and staff; however we subsequently found that there was still some mismatch between the design of questionnaires, interview questioning and the use of diaries resulting from the assumptions mentioned above.

In Case study 1, there were some problems accessing the VLE outside of college and although the lecturer had every intention of encouraging students to work at home through the VLE, this was not

² See <http://sole.ilrt.bris.ac.uk/research.html>

³ Further redesigning and piloting was not completed as there was no further resourcing for these additional case studies

operationalised due to technical constraints. Students also did most of their work on the VLE in a class-based environment (an open plan area called the “computer pod”) where the tutor was always on hand to offer assistance. This meant that questions about help, support, and induction were not so relevant for this group. Furthermore, given this activity and setting, observing students in the classroom would have been a valuable exercise.

In Case study 2, technical access issues were less problematic but nevertheless (especially given the nature of the subject: Art and Design), activity on the VLE outside of class was still limited and most activity was classroom-based, with the same issues resulting as with case study 1. Another particular finding in this case study was the lack of distinction amongst the students interviewed between the VLE and other tools (e.g. Interactive whiteboard, PowerPoint.). This is not that surprising from the students’ perspective but it did mean that some of the questions in the interviews were confusing for the students as they did not appreciate the exact nature of the VLE’s role in relation to other tools and could not therefore comment meaningfully about critical incidents they had experienced with a VLE.

In the light of these findings, the following recommendations are suggested for any further case studies undertaken in Further Education Colleges.

1. Case studies in Further Education should focus on activity that takes places within the classroom context.
2. Methods should include observation (using video if possible) to get a fuller understanding of the nature of student experiences in the classroom.
3. Any instruments should be fully piloted with students and lecturers in equivalent settings before finalising the design

Finally, these case studies have highlighted that there is a strong need for more research into FE sector, as the lecturer from Case Study 2 commented:

“I think the FE level does need more study because unfortunately we’re rarely in a situation where members of FE can do their own research or if they do it tends not to be supported institutionally ...” (Lecturer int1, case study2).

“I think VLEs they are still quite uncharted and there is a danger with any new resource that comes out of using them in dare I say it in quite a mundane manner and I don’t think its really Learnwise’s duty to do that. It’s for educational establishments to actually think about best practise and how to invigorate good practice using VLEs...”(Lecturer int1, case study2)

5. References

- Armitage, S, Brown, T, Jenkins, M: (2001) Management and implementation of Virtual Learning Environments: A UCISA funded survey, available at http://www.ucisa.ac.uk/groups/tlig/vle/index_html - last accessed 18 December 2003
- Armitage, S. & O'Leary, R. (2003) e-Learning Series No 4: A Guide For Learning Technologists. York. Learning and Teaching Support Network.
- Brown, J.S., Collins, A. & Duguid, S. (1989). [Situated cognition and the culture of learning](#). Educational Researcher, 18(1), 32-42.
- Brown, T. & Jenkins, M (2003) VLE Surveys: A longitudinal perspective between March 2001 and March 2003 for Higher Education in the United Kingdom. A UCISA funded survey, available at http://www.ucisa.ac.uk/groups/tlig/vle/index_html - last accessed 18 December 2003
- DfES (2003) Towards a Unified e-learning Strategy <http://www.dfes.gov.uk/consultations2/16/> last accessed 18 December 2003
- Goodyear, P., (2001), Effective networked learning in higher education: notes and guidelines, available at <http://csalt.lancs.ac.uk/jisc/advice.htm> – last accessed 16 January 2004
- Knowles, M.S. (1970, 1980) *The Modern Practice of Adult Education. Andragogy versus pedagogy*, Englewood Cliffs: Prentice Hall/Cambridge.
- Lave, J., & Wenger, E. (1990). *Situated Learning: Legitimate Peripheral Participation*. Cambridge, UK: Cambridge University Press.
- Phillips R. (ed), Bain J., McNaught C., Rice M., Tripp D. Handbook for learner-centred evaluation of computer facilitated learning projects in higher education. Murdoch University, Australia 2000 <http://www.tlc1.murdoch.edu.au/projects/cutsd99/> last accessed 18 December 2003
- Prosser, M. & Trigwell, K.(1999) *Understanding Learning and Teaching: The Experience in Higher Education*. Buckingham: Society for Research in Higher Education and Open University Press.
- Stiles, M. (2002) Staying on track: why are we using technology in teaching? JISC Inform, Spring 2002 issue.
- Virtual Learning Environment Activity in Further Education in the UK (2003) available from: http://www.jisc.ac.uk/uploaded_documents/VLE-in-FE.doc
- FERL - http://Ferl.becta.org.uk/content_files/pages/surveys/ILTmonitoring/_Toc47233851

Appendix 1 Data tables not included in the text

Case Study 1, Questionnaire 2 – Factors influencing motivation

Factor	Negative %	Neither %	Positive %
Personal needs	0	46.15	53.85
Fellow students	7.69	61.54	30.77
Lecturer	0	46.15	53.85
Course admin/regulations	23.08	69.23	7.69
Physical location	7.69	69.23	23.08
Help and support from lecturer/other	0	7.69	92.13
Help and support from VLE or computer	0	15.38	84.62
Working online	7.69	30.77	61.54
Communicating online	0	30.77	69.23
Access to computer	7.69	61.54	30.77
Technological issues	30.77	53.85	15.38
Other	7.69	0	0

Case study 2: Questionnaire 1: Motivation drivers

N=9	% Strongly agree	% agree	% neither agree or disagree	% Disagree	% Strongly disagree
The most important thing is getting good marks in assessment(s)	88.89	11.11	0	0	0
I am really worried that I may not do well in this unit	11.11	22.22	33.33	33.33	0
I am interested in the subject matter of this unit	44.44	55.56	0	0	0
I am doing this unit to help me achieve my personal goals	44.44	44.44	11.11	0	0
I am good at this subject and expect to do well	0	55.56	44.44	0	0

It's important to do better than others in the group	0	0	88.89	11.11	0
I am only doing this unit because I need the credits	0	11.11	22.22	22.22	44.44

Motivation drivers: Questionnaire 1; Question 8, Case Study 2, n=9

Diary Activities

Number of responses

	Case study 1	Case study 2
Number of returned diary1	9	6
Number of returned diary2	12	8
Total number of students	56	13

Activities

		V	E	P	F	O	Not indicated	total
Case study 1	Diary 1	595	425	255	1260		120	
		16	8	9	24		5	62
	Diary 2	515	355	370	2876		510	
		11	11	15	42		13	92
Case study 2	Diary 1	120	180	75	545		35	
		5	5	3	10		2	25
	Diary 2	120	565	430	755	60		
		6	13	10	13	1		41

VLE activities

		White board	Discussion Forum	quiz	Topic area/ notes	O	Not indicated	total
Case study 1	Diary 1		120	20	30			
			4	1	1		10	16
	Diary 2		70	15	55			
			2	1	2		6	11

Case study 2	Diary 1	55		25			40	
		2		1			2	5
	Diary 2	60		60				
		4		2				6

Appendix 2 Open questions in questionnaires

Case study one

Questionnaire 1

Do you have any Introduction to working with VLE? If yes, what was it? (text)

Last year course.

Online learning g will help me in lessons.

Hadn't work too well, no one used it.

Last year A S Psychology

Shown how to use, scavenger hunt

Do you have any concern about using VLE? If Y, please outline these (text)

That I won't be able to use it.

I have not used it before

Don't know what it is

Have never used.

I haven't used it before, so don't know what to expect and I'm not good at using computers.

How to use it.

No

Are there any aspects of VLE which you are looking forward to? If Y, please outline these (text)

Finding out if it will aid me in my learning.

I have no opinion of Learnwise.

Online debating

Learning in a new way.

Learning about it!

Learning about something new.

Finding a new info resources.

Another information resource.

Is there any aspect you are not looking forward, If Y, please outline these (text)

Just the worry that I will not understand how to use it.

Technical jargon.

Having to use the computer!

What support do you think is available for you in working with Learnwise? (text)

Lecturers, ICT technicians

Textbooks, lecturer, internet

Never used it so I wouldn't know.

My subject lecturer would help me if I asked.

At xxx college, lecturer helped.

Lecturers, learning gateway, specialists.

More information.

The teacher

If you have a problem.

Internet access

Easy internet access and willing teachers

Help from lecturers, online help.

Learning about the unit.

A better understanding of the unit.

Not aware of any support at this time but confident that lecturers will.

Unsure as I have not used it before.

Unsure as I have not used it before.

No idea, I've never used Learnwise before.

I am not sure.

Don't know.

Dunno

I don't know.

Don't know.

I don't know.

Please add any other comments you would like to make (text)

I haven't been introduced to Learnwise before but I think it will benefit me.

I'm looking forward, but I'm not sure yet what I've let myself in for

Questionnaire 2

Did you experience any problems in working with VLE?
I don't like how the server times out. As I said, information on Learnwise to describe one thing was used to describe another in Christine Brain's textbook which was confusing. The login page is hard to find. Only problem I had was finding explanation of research methods for social approach Site down
What support was available for you in working with VLE?
Other students were very helpful. lecturer Lecturer and other students Technician and subject lecturer. Our Teacher Lecturer + other students. Peers + face + on web site Course teacher lecturer Gateway adviser Teacher + friends
What aspect of VLE has contributed most to you learning?
It was organised well. Forum The forum The section containing notes and quizzes The quizzes Having all at the notes under easily understandable headings. Test Index / FrontPage

Quizzes + online chat
Notes
Emailing lecturer
Which aspect of VLE has been the biggest barrier to your learning?
<p>The layout of the forum</p> <p>No access from home.</p> <p>None were particularly very difficult.</p> <p>See No.4 and a few things weren't explained properly I feel.</p> <p>Once you have accessed an area it disappears from the list.</p> <p>Too much text</p> <p>The URL</p> <p>No access form home</p> <p>Site down</p> <p>Don't know</p>
Other Comments
<p>I thought that Learnwise was useful, although it is tough to find information through the flooding of information available.</p> <p>Could you have a broad structure to the forum as opposed to a tree format?</p> <p>I love psychology</p>

Case study two

Questionnaire one

Do you have any Introduction to working with VLE? If yes, what was it? (text)

Librarian + lecturer gave a demonstration.
How to use Learnwise given by the lecturer.
By the teachers
Help by lecturer
Lecturer
Brief explanation from friend.
In class
Our lecture showed us.

Do you have any concern about using VLE? If Y, please outline these (text)

Same times I find it difficult to navigate my way around it.
I don't even know what it is! I hate computers!
It's quite complicated.
It's complicated not very well explained.

Are there any aspects of VLE which you are looking forward to? If Y, please outline these (text)

Learning to have online discussions if it's possible.
Learning new subjects
Don't know enough to look forward to.
Not particularly

Not looking for

Yes, using it.
Stuff I don't understand

Support

Lots of help from lecturers on getting notes off Learnwise.
Help for your assignments from lecturers.
Notes for the lesson we have.
Help from lecturers, lecturers and friends
Easier to print off research
I find it quite complicated but once I use it more it will be better.
Lecturer and librarian
Support of lecturer.
Any problems we have we can ask our teacher.
If any lessons have been missed, I can look on the VLE to see what I have missed.

Other comments

I feel we should have been pushed more to use it in other lessons, not just this subject.
I am not very confident using the computers provided or using Learnwise.
There should be more help and more explanations to enable children to use it confidently.

Questionnaire two

Did you experience any problems in working with VLE?

Difficult to find exact location of the information.
Logging on and trying and find Learnwise
Confusion

What support was available for you in working with VLE?

Support from lecture and assignments briefs.
Good notes to help me.
The support from a lecture to help understand using Learnwise.
I did a talk to my class last week and I using the VLE it helped me a lot to explain.
There were not much help around.
There's help in class but practically impossible alone.
If any lessons were missed I could look on the VLE to see what I had missed.

What aspect of VLE has contributed most to you learning?

The range of information all helped me.
The slide shows.
Range of information given.
Getting notes that a lecturer had put on the VLE.
The VLE
The touch screen because it kept me alert.

Which aspect of VLE has been the biggest barrier to your learning?

There wasn't really any.
Every aspect, I could not learn independently.
Try to find certain information.
The slow reactions of the computer.
None
None

Other comments

Layout is very hard to use. I'd appreciate a rethink on the design + simplify.
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