A CASE STUDY OF A NEW LEADERSHIP COURSE USING DISTANCE-USER INPUT IN DESIGN OF HYBRID DELIVERY

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Abstract

An innovative new course in leadership for distance learning students incorporating hybrid delivery of minimal print resources, a multi-media CD, and WebCT online facilities has been developed over several offerings. The course incorporates material addressing multi-modal learning preferences as detailed in the VARK learning styles. For the initial offering, the author used the multi-media program Iluminatus Opus to develop the CD as the initial primary resource and WebCT online facilities as secondary. In subsequent, offerings, this has changed to using WebCT online facilities as the primary resource with the CD as a secondary support resource. Student feedback has been a primary driver in the development of the course design, which incorporates online quiz assessment designed to keep students on track with their learning schedule. Auto-narration is being developed to assist students with English as a second language. The course is offered as an elective in second year and has attracted student numbers that commenced with 63 and has grown to 155.

Keywords

distance learning, hybrid delivery, online learning, live chat room, and discussion forums, multi-media CD, multi-modal learning styles-VARK learning styles, leadership, online quizzes, Iluminatus Opus, WebCT, and Auto-narration.

Introduction

The need to respond positively to drivers of change such as globalisation, the emergence of the 'Information Age' the move to a knowledge society and the greater emphasis on lifelong learning has seen higher education institutions seeking alternatives and supplements to the traditional face-to-face (F2F) classroom delivery. One such alternative is Hybrid delivery or Distributed learning. According to the California State University Center for Distributed Learning, (2005) "distributed learning means using a wide range of information technologies to provide learning opportunities beyond the bounds of the traditional classroom"

At the University of Southern Queensland (USQ), attempts to take advantage of the emerging information and communication technologies (ICTs) to create innovative new methods to deliver study programs around the world is a priority. The purpose of this paper is to present a case study on the development of a new course in leadership within the Department of Management and Organisational Behaviour. The leadership course trialled the use of a multi-media software program called Illuminatus Opus to develop an interactive CD in conjunction with other

distributed learning technologies including, World Wide Web, email, simulations, distribution lists, and chat rooms to promote active learning.

This paper first describes the rationale and background for developing the hybrid model. This is followed by details and information about phase 1 – the initial course offering and student feedback for this phase. Next, phase 2 elaborates the emphasis in subsequent offerings of the course. This paper then goes on to detail some future considerations.

Rationale and Background on Hybrid Learning

There has been a growing acceptance that educational programs should be learner centred, rather than teacher centred (Mayes 2001). Further, the higher education sector has experienced significant growth and demands from a variety of learners who have required greater flexibility in access to programs and services (Laurillard 2002). As a consequence, the rationale for designing the MGT2007 Leadership course as a hybrid course was to cater over time for the full range of the VARK learning styles (Fleming, 2001a, 2001b, Fleming & Mills, 1992) through the use of a multi-media CD and online facilities available to students at USQ.

According to Fleming and Mills, the acronym VARK represents four different sensory modalities that individuals use for learning information, Visual, Aural, Read/write and Kinesthetic. Moreover, Fleming and Mills contend that each modality has a preferred set of delivery mechanisms. For example, they point out that for the visual modality, the use of charts, graphs, flow charts and other symbols are used instead of what is normally presented in words

Consequently, the principles of multi-modal design are therefore basic to the instructional design incorporated in the hybrid MGT2007 Leadership course. These principles are based on research that demonstrates that learners use a variety of learning or cognitive styles for information processing. For example, Ainsworth and Van Labeke (2002) found that the provision of a visual representation often solved a communication problem where the written word was less than fully successful. In addition, Ainsworth (1999) concluded that learners who use multiple learning styles had greater performance effectiveness than those learners who used only one learning style.

The visual learning style is dependent on visual images which are a central part of human cognition, yet according McLoughlin and Krakowski, (2001) they have tended to be marginalised and undervalued in contemporary higher education. This is despite support that using visual content improves learning outcomes (Felder & Soloman, 2001; Stokes, 2002)

Sarasin (1999) indicated that despite the fact that most researchers are in agreement about the existence and significance of these different learning styles for learning, a great deal of instructional episodes are focused on generic cognitive styles especially the read-write learning style. Further, according to St Hill (2000) those learners whose learning preferences may not match the presentation style may feel their needs have not been addressed and under-perform.

Grisham (2001) indicated that learners in present-day societies are required to decode information from a variety of media, which regard material such as videos, verbal texts (audio), diagrams, drawings, photographs and the like as texts. Since these materials need to be read and comprehended, they may be legitimately used in the development of new inclusive curricula (Roth, 2002).

Although it is considered important to provide for all the various learning styles of students in new curricula, it is also imperative not to overload the cognitive demands of learners, because this can restrict their learning (Bodemer and Ploetzner, 2002). Nevertheless, to ensure that more students' have improved learning outcomes and perhaps improved satisfaction with their learning experience, it is necessary to provide information in a format such as the hybrid model, which can access these multiple sensory channels and provide information in each of the VARK learning styles

Phase 1 - The Initial Course Offering - Hybrid Mix and Emphasis.

The department of Management and Organisational Behaviour incorporated a two-phase introduction for this course that would have it operating predominately online after two offerings. The initial offering was in the summer semester of 2003. It was primarily delivered by means of a multi-media CD developed by the author using a multi-media software program called Illuminatus Opus. Additional back up facilities, including an introductory book, WebCT online course facilities and e-mail were also used.

The introductory book incorporated general information about the course such as course specifications, academic staff, assessment details and study guide. The multi-media CD, which was structured like a web page as shown in figure 1, had click and point links to onboard resources such as a University Video and a modular menu.
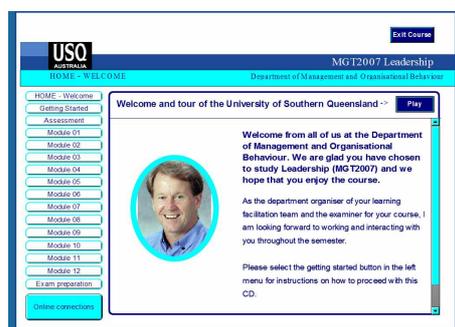

Figure 1 - Structure of CD

The modular menu provided access to lectures, PowerPoint slides, interactive quizzes, selected readings, University Hand Book and External Student Guide. An example of access to the lecture notes contained in module 2 is shown in Figure 2. Note the access buttons at the top of the lecture notes, these provide further access to activities and selected readings relevant to each module.
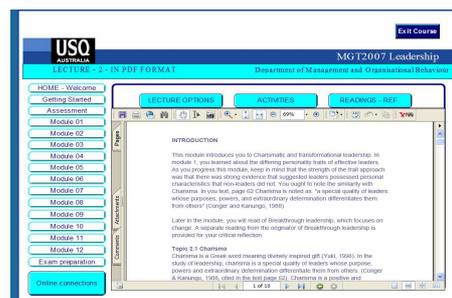

Figure 2 - Lecture notes

The CD had a full complement of information for students to complete the course just with the CD, including online links to University information when connected to the internet. The online facilities inside the course home page in WebCT complemented and duplicated some resources on the CD. An important communication feature was the course intranet mail and discussion facilities within WebCT, which were set up in module topic areas that corresponded to those on the CD. Figure 3 demonstrates the structure of the facility which represented the official communication centre and was not available on the CD.
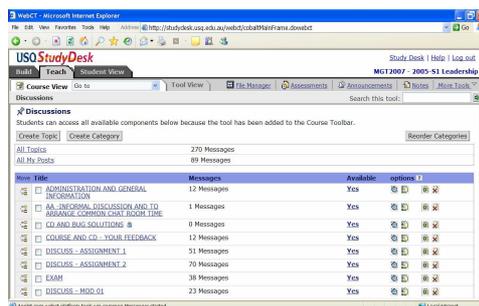
Figure 3 - Online discussion facilities

Student Feedback on Initial Offering

There were 63 students enrolled in the course and there were a number of ways in which students could provide their feedback about the course.

First, a discussion topic was set up specifically for ongoing feedback from students throughout the semester. Students were encouraged to provide any feedback whether positive or negative so that the course could respond to student requirements on an ongoing basis where possible. The discussion topic provided some recommendations for having material presented in multiple formats such as Word, PDF and HTML and suggestions for additional interactive materials and scenarios. The multiple formats were accommodated during the semester for the online component of the course.

Second, the University provided a formal anonymous feedback assessment process at the end of semester for the course. In the formal anonymous assessment process, only 4 students responded to the standard set of questions, with the results as detailed in Table 1 below. However, as the respondent numbers were very low, the information should only be used as a support to the information received in the informal process. .

Table 1. Formal assessment results for MGT2007 Leadership Semester 1 – 2003

Course:	**MGT2007 – Leadership**	**Course Mean**	**Std Dev**	**Faculty Mean**
Mode:	**External only**			
Q1	The teaching materials made clear the objectives for each module	4.25	0.96	4.02
Q2	The teaching materials explained concepts clearly	3.50	1.29	3.70
Q3	The teaching materials presented the subject matter in a way to help understanding	4.00	0.82	3.65
Q4	The teaching materials demonstrated the relevance of the course to the whole program	3.75	1.50	3.70
Q5	The teaching materials arrived prior to the end of the first week of semester	4.75	0.50	4.41
Q6	The teaching materials provided activities etc to help self assessment	4.25	0.96	3.80
Q7	The teaching staff responded promptly to queries & requests for assistance	4.75	0.50	3.98
Q8	The teaching staff gave adequate feedback on assignments etc	5.00	0.00	3.58
Q9	The RLOs were supportive & helpful	3.67	2.31	3.71
Q10	Outreach Services were supportive & helpful	4.33	1.16	3.76

Q11	The course covered what the course's description said it would	4.25	0.96	4.11
Q12	The criteria used to assess student work were clear	4.75	0.50	3.73
Q13	Assessment tasks allowed me to demonstrate what I had learnt	4.00	0.82	3.76
Q14	The materials needed to do well in the course were all available	4.00	0.82	3.72
Q15	Rate overall satisfaction of this course	5.00	1.83	4.92

Third, an informal assessment process was undertaken at the end of the semester through direct e-mail to all students by the course examiner. The informal assessment process was not anonymous, but completely voluntary and obtained 23 respondents, considerably improved on the formal process. This informal process aimed at tapping into what issues or course aspects were dominant in students' minds at the completion of the course. Consequently, students were asked to provide as much or as little feedback on any issue that they felt was important to them. Responses were analysed, using a simple content analysis and then ranked on the frequency of being mentioned. Table 2 below provides details of the analysis and ranking of areas mentioned.

Table 2 – Informal assessment results for MGT2007 Leadership semester 2 – 2003 providing a summary of dominant areas mentioned in student feedback and an example category response

Area mentioned	+ve	-ve	Example of a category response
CD and its format	19	1	The CD was an excellent medium for the course and I for one would like to see this format duplicated in other courses. It was compact, easy to follow and avoided all the usual clutter associated with study books. I have actually kept the CD to refer to in the future.
Assignment 1 (Online – Quizzes)	15	1	One of the best components of MGT2007 was the Web assessments. I would much prefer an ongoing assessment of this nature as one of the assignments for each course. I found the weekly tests helped keep me on track with my study as well as providing excellent revision and preparation for the exam.
Discussion Board	14		Having the discussion group set up in module format meant easy access to the area relevant to my queries, and one that I accessed on a regular basis.
Lecturer	13		The lecturer displayed great human behaviours for a change! He was prompt in replying to queries, showed a sense of humour and generally explained the material in a way that was relatable to the real world.
WebCT usage	11		The internet model provides an efficient means of submitting course material and I enjoyed the format immensely. Overall the course was well structured with excellent tutorial expertise readily offered and available via the Discussion WebCT link and intranet mail
Text Book	8		I found the text easy to comprehend and the scenarios and examples helped me to recognise and apply the theory to practice.
Assignment 2	4	1	I enjoyed the assignment task in comparing and contrasting the two leaders and leadership styles. I found this really interesting and enjoyed the research required for this assignment.
Exam	2	4	Most other courses that I have undertaken focus on

			an average of five modules and not the entire text book
General overall			Depending on the result of the exam this may be my last subject. I have to say of the 20 other courses I have completed this is the subject I have enjoyed the most.

Notes: +ve is an abbreviation for positive feedback
             -ve is an abbreviation for negative or constructive feedback

In providing feedback, students were not given directions on what to include or exclude, hence a higher ranking indicates that the particular area was more important to a broader ranger of students than other areas. Where an area was not mentioned by a student, it does not mean that the student did not think that it was an important area rather that it merely was not a significant issue or change in the mind of the student.

Overall the students were positive about the key elements of the hybrid delivery, the CD, the online assessment, the online discussion board and WebCT usage. Please note that the discussion board is part of WebCT usage, but WebCT provided other course components in addition to the discussion board. Further some other courses that the students take may provide only the discussion board facilities and not the facilities as set up in WebCT such as the learning modules. Hence it was important to show the discussion board and WebCT usage as separate elements, however, it may be that some students may not have differentiated between the two elements..

One student provided negative feedback concerning the course delivery method generally, as the student preferred the traditional method of delivery using read-write material. Four students reported the exam as being too difficult as it was broadly based on the whole text, however, because USQ assessment is based on mastering the content level and results are not normally distributed, this is unlikely to change. The positive feedback in particular for the online aspects of assessment, discussion and mail were encouraging for the next planned migration of the course to online delivery with a CD as back-up. The formal assessment, while not adding much information, did support the overall positive nature of the feedback received from students.

Phase 2 – Changed Emphasis - Hybrid Mix with Online Emphasis and CD back-up.

Phase two of the course implementation had WebCT facilities replace the CD as the primary source of course information, but the CD was still produced as a back-up for easy off-line usage. WebCT's standard features were used to develop the course content in a compatible format to that presented on the CD, with adjustments for the particularities of WebCT. For example, particular icons are standardised in WebCT. Organisers in the shape of file folders compartmentalise like information. At the commencement of this course in each semester, a standard format of five units of information is presented to students, two files and three organisers. Of the two files, one is a standard help file, common to all courses using WebCT which provides students with a range of help information. The second file is a welcome file, which is a reproduction of a letter sent by the course examiner to all students with the back-up CD resource. The letter provides students with initial written information and direction on how to access the course home page, study materials, texts, study guides, and ancillary information. The first of the three organisers contains the learning modules, which contain all the content information for the course. The second organiser is the assessments organiser, which contains details and access to each of the assessment pieces excluding the examination. Finally, the third organiser is the additional resources organiser which contains links to a variety of information such as, referencing information, extension policy information, and essay writing skills information, and any other material that is deemed useful by the examiner or desired by the students throughout the semester. In some cases additional links are

placed on the home page as is shown in figure 4, such as, an internet link to a site on critical thinking or a direct link to an article in an electronic Journal such as the Leadership Quarterly.
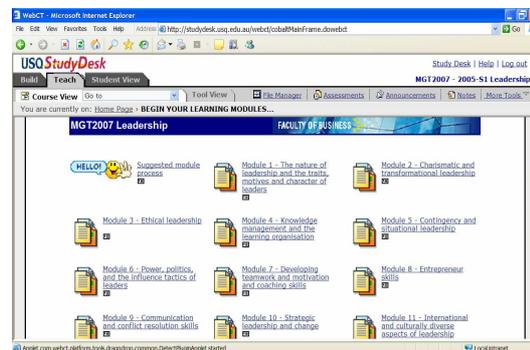

Figure 4 - Course home page with learning module organiser

Using the learning module organiser as an example can provide insight into the underlying structure of the course material. A student selects the learning module organiser on the home page and is provided with a list of modules that are available for the course. Figure 5 is an example from the current semester 1 in 2005. There is a file giving the students a suggested process for doing each module, however, they are free to do the modules in any manner they decide.
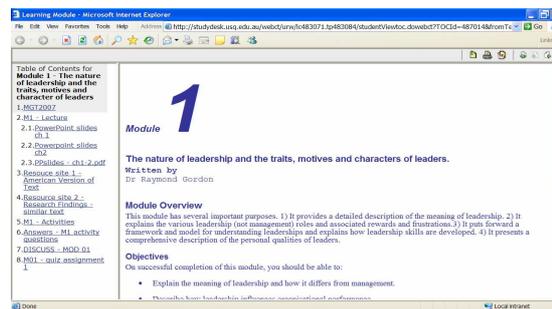

Figure 5 - Learning modules inside learning organiser

On selecting the icon for a particular module, the student is presented with a standard screen as detailed in Figure 6.
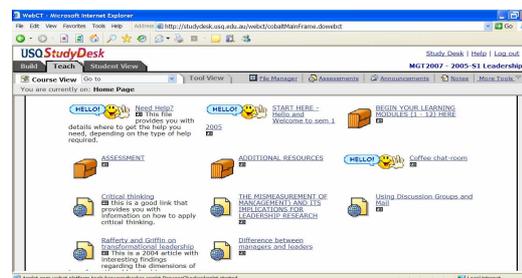

Figure 6 - Individual learning module structure

The standard screen presents students with a menu of eight items. Menu item 1 provides the module overview and its objectives. Menu item 2 contains the lecture proper and two versions of textbook slides; one in PowerPoint format and one in PDF format. Menu item 3 provides direct links to a student resource site for the American version of the text. Menu item 4 provides an additional direct link to a resource site on research findings for a sister text. Menu item 5 contains some review activities and questions to test module knowledge. Menu item 6 provides some possible answers to review activities and questions in menu item 5. Menu item 7 links the module content directly with the discussion board for the module material to enable easy and immediate use. Finally, Menu item 8 provides a direct link to the assessment quiz for the module.

Ongoing Student Feedback

Ongoing student feedback is sought through a discussion forum topic in WebCT online facilities. Figure 3 above shows the modular format of the discussion topics and the particular feedback topic titled "Course and CD – your feedback". Students are encouraged to provide both positive and constructive feedback on any aspect of the course for its development. Many of the comments have been positive, however, a small number of students lament what they see as the passing of the full text basis of courses and have noted their desire to access the information on a text only basis in the future.

Phase 3 – Future Considerations

The future format of the course is expected to change in a number of ways as more information is presented in multiple formats to accommodate more of the VARK modalities. One of the key issues is the ability to provide a wide range of formats on a cost effective basis while maintaining high quality. This introduces a number of problems. Although the course was initially developed personally by the author using Illuminatus Opus, it needs to be incorporated in the wider production system of the University. This requires the introduction of different tools to Illuminatus Opus that are more generic to the University's production methods to ensure a broader base of capable individuals to maintain the course. The change in production tools may have both positive and negative impacts on the actual way that the VARK modalities may be addressed. For example, USQ has a diverse external student population coming from many countries that have English as a second language. One of the functionalities that Illuminatus Opus provides is the ability to produce material such as lectures, with audio and sub-texts to the audio that lights up each word as it is spoken. In the vernacular used by the developers of Illuminatus Opus, this is called auto-narration. Auto-narration requires a complex production process and its viability will need to be assessed, but, it appears to be a very useful tool that should assist students with English as a second language. However, the broader University production tools are not yet available to accommodate this particular format.

Conclusion

The MGT2007 leadership course has been delivered and developed using a hybrid delivery methodology informed by distance users that has addressed to some extent each of the VARK modalities; Visual, Aural, Read/write and Kinesthetic. However, additional work needs to be done, particularly with respect to auto-narration. Despite the challenges that lie ahead of this particular course in the conversion to mainstream productions systems. It is clear from the ongoing support received from students in their feedback and in the increase in their numbers choosing to take this particular elective course that hybrid delivery or distributed learning with a mix of modalities and formats that address student needs is desirable, supported by students and needed by higher education institutions in addressing the drivers of change and learners needs in a diverse educational environment.

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