Using Video Conferencing to Support Distance Learning
A Staff Development Course

Sandra McKillop
and
Maria Lee

The Queen's University of Belfast

Acknowledgements

Contact Information

Ms Sandra McKillop

Teaching Support Group

Computing Services

The Queens University of Belfast

Belfast

BT7 1NN

s.mckillop@qub.ac.uk

Ms Maria Lee

Institute of Computer Based Learning

6 College Park East

The Queens University of Belfast

Belfast

BT7 1LQ

m.lee@qub.ac.uk

We are happy to discuss our experiences and to assist anyone wishing to design and develop courses to prepare staff who want to use Communication and Information Technology (C&IT) in their teaching and learning.

Any comments on this report will be gratefully received

Executive Summary

This report describes the design, development, delivery and evaluation of a staff development course which is targeted at staff using video conferencing to support and deliver teaching. It presents a number of recommendations which will be of value to anyone wishing to develop and deliver staff training for video conferencing, or the related communications and information technologies (C&IT) to support distance learning.

The MORAL Framework used in the design of this course, facilitated an investigation into five key areas and the relationships between them: methods; objectives; resources; assessment; and learners. This exploration resulted in a layered training programme delivered in four sessions:

Session 1:   Getting Started with Video Conferencing

Session 2:   Planning and Organising Learning for Video Conferencing

Session 3:   Presentation with Video Conferencing

Session 4:   Preparing and Delivering Teaching with Video Conferencing.

The course aims to give staff the confidence and skills necessary to use the technology effectively to support their teaching and its focus is pedagogical.

Formative and summative evaluation to date has been very positive. A number of recommendations are made regarding how training of this nature should be developed, who should be involved, who should deliver this training and what teaching methods are the most appropriate.

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1 Introduction

Rationale

The deployment of communications and information technologies (C&IT) has become a major instrument for widening the reach of education institutions. The Higher Education community is under immense pressure to ensure that both staff and students are trained and in a position to embrace this technology. As identified by JISC, 1997 " … the opportunities presented by IT are outstripping the ability of the sector to assimilate and exploit them". What is required is the provision of timely training for staff and students involved in the support and delivery of distance education. This has to be supported with the provision of an organisational infrastructure to assist staff using the technology to maintain and update their skills and knowledge.

In addressing the need to provide wider access to higher education and offer a more flexible form of third level education, The Queen's University of Belfast (QUB) established its Campus Outreach Initiative in 1995. The Institute of Computer Based Learning (ICBL) was one of the first to offer a course under this initiative and since its introduction, has been running an MSc in Computer Based Learning to an increasing number of sites, making extensive use of computer mediated communications (CMC) technologies. The ICBL has also played a major role in advising University policy on the management and strategic direction of this initiative and are seen as the pilot project within the University.

In partnership with the Audio Visual Services (AVS) at QUB, the ICBL has provided orientation for staff using the facilities provided by the Campus Outreach Initiative. These have tended to be informal and delivered on an on-demand basis. Summative evaluation of these early sessions indicate that staff require more than a simple overview and demonstration of the facilities in order to feel prepared and confident in using the technology (Lee, Greenwood, 1997).

Research into existing staff training would suggest that current training materials and provision do not appear to meet the needs of academic staff. With regard to video conferencing training provision, previous SIMA reports indicate that there is an inadequate appreciation of and information on the pedagogical aspects of video conferencing training. Characteristically, training provision tends to be:

informal; comprising a demonstration of the facilities and equipment lasting approximately 10 minutes, facilitated by a service provider (Carter et al, 19??);

paper based; single sheet of instructions on video conferencing etiquette (Carter et al, 19??);and

technology driven; focus of training on how to operate the equipment (Schurr et al, 19??).

With the lack of training that considers the use of technology in teaching; and the potential to increase the number of courses and staff involved in the University's Campus Outreach Initiative, it was timely for the development of a course which addresses the specific needs of teaching staff.

Aims and Objectives

The aim of this case study was to meet the need for a comprehensive staff development course that specifically addresses the pedagogical requirements of staff involved in the support and delivery of teaching using video conferencing in the University's Campus OutReach Initiative. Technical staff were included in the training as it was felt that they could best support their teaching colleagues if they had an appreciation of their pedagogical needs. The objectives were to:

- identify the training requirements of both the department and individual members;
- design and develop a staff development course which would:
- equip staff with the skills required to plan, organise and deliver their teaching using video conferencing;
- provide the opportunity for staff to reflect on their current teaching methods and media and how these can be used or adapted for effective teaching in a video conferencing context;
- help staff to develop confidence in their ability to make best use of the technology; and
- explore the relationship of the various service providers, in the University, in the provision of training.

The Project Team

A number of the key service providers in the University were involved in the design, development and delivery of the course. The project team comprised staff from the ICBL, Teaching Support Group of Computing Services (CS), AVS and Staff Training and Development Unit (STDU) together with the School of Nursing and Midwifery (the targeted department). Each of the service providers, based on their expertise and experience, provided useful input to the analysis, design, development and delivery of the training. The project was managed jointly by CS and ICBL.

The ICBL is in a very strong position to offer training and support for staff preparing for distance education. It has been involved in a number of national initiatives aimed at promoting the use and integration of technology into teaching, learning and assessment. The ICBL encourages and supports the innovative use of video and data conferencing in education. Further, it has over three years experience in delivering an MSc in Computer Based Learning (CBL) that provides students with an opportunity to learn about the concepts, methods and associated disciplines of CBL. The course is delivered to three sites: Belfast (main campus), Armagh (University Outreach Centre) and Omagh (Omagh College of Further Education) and makes extensive use of CMC technologies - video conferencing, data conferencing, the World Wide Web and electronic mail. The ICBL has a very close working relationship with CS.

The AVS comprises Visual Aids, Photographic, Graphic Design and Audio Resource Units. It has a major role to play in supporting the University's Campus Outreach Initiative. In collaboration with the ICBL, it has provided orientation sessions to staff wishing to use the facilities and assists staff in the setup and operation of the equipment.

The STDU offer a wide range of courses for all categories of staff at QUB in the areas of teaching and learning, University policy and systems, management and personal development. One key role of the STDU is to help academic staff develop new approaches to teaching and learning, particularly in the context of the Teaching Quality Assessment (TQA). The Unit also works closely with ICBL in providing support on the use of technology in teaching and learning.

Target Group

A group of approximately 20 staff were identified from the School of Nursing and Midwifery. This group was chosen by the School as having immediate video conferencing training requirements and it was also envisaged that they would act as the 'champions' for video conferencing and further support their colleagues in the effective use of video conferencing.

The School of Nursing and Midwifery has recently been integrated into Queen's resulting in a number of previously discrete units being brought together under one management structure. The School provides both pre-registration nursing education and a wide range of innovatory courses at post registration, undergraduate and post graduate level. The post graduate level courses prepare nurses, midwives and health visitors for leadership roles in clinical care, teaching, management and research.

Opportunities are provided for interdisciplinary studies with students from other areas of the University.

As part of the School's expansion, the University has established another outreach campus in Altnagelvin (approximately 80 miles from the main site). It is envisaged that the School will deliver its teaching to this campus, and in time will also deliver to Armagh and Omagh. Although the primary use of the facilities will be for the delivery of distance learning, the School has also recognised the role which video conferencing can play in administration and planning activities and in generally improving communication between sites. They intend to be fully operational within a matter of months and so have a real need to get staff trained and prepared for distance learning.

2 Course Design

As identified, each of the project members were involved in the analysis, design and development of the course. The ICBL and CS, worked closely together, holding regular group project meetings with all project members and informal sessions with representatives of the target group and the other service departments, particularly AVS. A framework was used to design the training and this also proved useful in evaluating and communicating progress with all members.

This chapter describes the framework that was used to design the course. The outcome of this process, that is the top level design or overview, is included at the end of this chapter.

Using the MORAL Framework

The course was designed and developed using a framework adopted from Mack, D; Mumford, A, Wilson, A, 1991. This framework, which aims to address the fundamental issues of designing any teaching or training activity, poses a series of questions. It requires continual refinement of these questions until the answers are consistent with each other. The keywords in this framework are methods, objectives, resources, assessment and learners (MORAL).

Methods

    Objectives

        Resources

            Assessment

                Learners
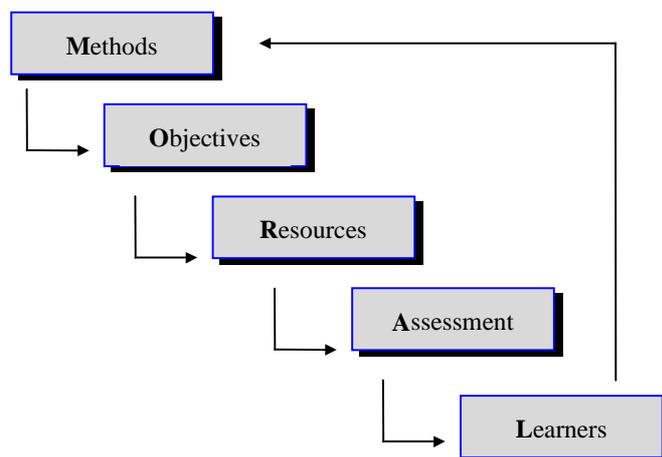
Figure 1 The Keywords in the MORAL Design Approach

In the three week period of designing the course, consideration was given to each of these key areas and their interrelationship with the other areas. These are described in the order of methods, objectives, resources, assessment and learners, but as outlined at the end of this chapter, such a linear approach was not adopted in reality.

Methods

Methods refer to the various options available to deliver instruction. (Mack, Mumford, Wilson, 1991)

A number of factors influenced the choice of training methods that were used. These included:

- the resources (physical and people) which would be available to deliver the training sessions;
- the individual objectives of each session;
- time constraints of the training; and
- participant's C&IT experience.

In consideration of these factors, the following training methods were chosen: lecturing, discussion, hands-on, demonstration and the use of support material. Table 1 outlines these approaches and how

they were adopted in the training. Where possible, the potential of the technology was illustrated by using computer based presentations or data conferencing to deliver the training.

Typically the first part of each session was set aside for lecturing, discussion and demonstrations and the latter part for hands-on, giving the participants the opportunity to build up their confidence in using the equipment. For the latter part of the session, a 'linkup' between different systems across campus enabled the groups to communicate using video conferencing.

Approach	Aim of using the approach and description
Lecturing	The aim of this approach was to present an overview of issues, to provide information and to explain concepts. It was used primarily before demonstration or hands-on experience. Lectures comprised short (approx 10 minutes), structured presentations reinforced with acetates or computer based slides.
Discussion	The aim of the discussions was to provide the participants with an opportunity to reflect on their expectations of the course, their teaching practices, their fears about using the technology. This provided invaluable insight into the participants needs, anxieties and impressions of video. A further advantage of the discussions was that they ought to assist in fostering sound working relations between the participants. Discussions involved an exchange of ideas and opinions between the participants, and then between the trainers and the participants on topics identified by the trainers.
Demonstration	The aim of this approach was to explain the equipment and how it can be used effectively in teaching. This was normally required prior to the participants using it themselves. This involved demonstrating good and bad practice in teaching/presenting with different types of video conferencing equipment.
Hands-on	In using this approach, we aimed to provide maximum opportunity for participants to become familiar and confident with using the facilities. Time was allocated during the structured sessions and participants were encouraged to book and use facilities between sessions. Hands-on involved the participants using the equipment following a set of recommended activities. For example when using the document camera, they were requested to practice: focusing, comparing the effect of the underlight and overlight, placing material on the camera and looking at the effect natural light has on the outgoing picture. For these activities, they were encouraged to practice using their own teaching media.
Support material	The aim was to provide the participants with accompanying information and reference material to assist them when they began to use video conferencing in earnest. This paper based material was handed out during each session. It included for example, *fact sheets*: what is video conferencing?, why would you use video conferencing?; *reference*: layout of the user interface; listing of all available facilities on campus; *tips*: how to prepare teaching material for video conferencing, how to build interaction into lessons; how to manage a classroom at a distance. We also referenced a number of courses which are provided by the STDU: *Small Group Teaching*, *Developing Student Groupwork Skills*, *Preparing and Giving Lectures*.

Table 1 Outline of the teaching methods used in the training

Objectives

Being explicit about objectives is crucial and a good way of sharpening them is to ask: What must the learners be able to do? What must the learners know? How must the learners feel? Having set the objectives, it is important to prioritise them. (Mack, Mumford, Wilson, 1991)

The objectives of the staff development course, as stated in chapter 1 were to:

- equip staff with the skills required to plan, organise and deliver their teaching using video conferencing;
- provide the opportunity for staff to reflect on their teaching methods and media and how these can be used or adapted for effective teaching in a video conferencing context; and
- help staff to develop confidence in their ability to make best use of the technology.

These objectives were informed by research into current training provision which identifies a lack of pedagogically focused training, and our own experience and expertise in delivering teaching via video conferencing.

At the very early project meetings, these objectives were discussed and four themes emerged:

- Getting Started with Video Conferencing
- Planning and Organising Learning for Video Conferencing
- Presentation with Video Conferencing
- Preparing and Delivering Teaching with Video Conferencing

A layered approach appeared to be the most logical way to develop these themes and it was decided to address each theme in a separate half day session, lasting approximately 3 hours. The first session sets the foundations with each session building up to the participants presenting their teaching using the technology. An overview of each of the sessions can be found at the end of this chapter.

Resources

This applies both to physical resources and people resources – the availability of both and ensuring that the methods and objectives being adopted match the people skills that are available. (Mack, Mumford, Wilson, 1991).

In assessing the resources, consideration was extended beyond the physical and person resources to include time and existing materials.

Questions considered at this point included:

- What is the required date for completion of the training? What are the most suitable training times?
- Are the necessary video conferencing facilities available for training on the required dates and times?
- What material already exists, within QUB and externally, which could assist in the design of the course?
- What supporting resources are required (worksheets? books? prescribed reading?, etc.).
- Are the necessary people available on the required dates and times?

Time

In consultation with the School, suitable times and dates, which could realistically be set aside for training, were agreed. Wednesday afternoons appeared to be the most suitable as it is typically an afternoon in which all academic staff are free from teaching. In order to enable the participants to have the opportunity to use the equipment between sessions, the training was spaced out over a number of weeks.

Material

In reviewing the current state of training provision for staff involved in the delivery of teaching with video conferencing, an extensive review was carried out. (The training materials identified by Schnurr and Smith, 1995 provided a starting point). The activities of initiatives such as TALiSMAN, Heriot-Watt University; Netskills project, University of Newcastle and recent staff training developed at the Robert Gordon University were also considered.

Regarding existing training material provision in QUB, a number of advice sheets, produced by AVS, were amended. These provided a useful resource for Session 3 which looked at presentational issues of video conferencing.

The supporting material developed and used in the course is outlined in Table 1 - Outline of the teaching methods used in the training.

Physical

The physical resources were not an issue within QUB, as there are adequate facilities and equipment to provide training. It was decided to book all systems (room based, lecture theatre and desktop system) for the required date in the event of a technical problem with one of the systems. These systems were all tested to ensure that there were no problem in connection and that all necessary peripherals required (document camera, video recorder player, slide projector) were available.

People

A combined services approach was taken in the design, development and delivery of the course. Although personnel from the ICBL, CS and AVS were the primary key players, the contributions, skills and expertise of the other service providers were invaluable.

People	Their Role
ICBL & CS	Analysis, design, development and delivery of course. Project management.
AVS	Technical assistance. Input into all sessions.
STDU	Assistance in course design. Input to Session 1 (role of STDU in QUB).
Enterprise Unit	Assistance in feedback on participants presentational technique (Session 4).
School of Nursing and Midwifery	Assistance in analysis and design of the course. Input to Session 1 (role of video conferencing in QUB).

Table 2 The service departments in the University and their role.

Assessment

Assessment and evaluation need to be built into the design stages rather than treated as add-ons. The two aspects of assessment to be considered are assessing the performance of the learners and evaluating the effectiveness of the training (Mack, Mumford, Wilson, 1991).

Assessment and evaluation were seen as more than assessing the performance of the learners and an evaluation of the effectiveness of the training. An evaluation framework was set-up alongside the framework for course design as it was imperative to obtain as much information, from each phase of the project, to facilitate course validation and possible re-design.

A more detailed discussion of evaluation is provided in chapter 4 - Evaluation Strategy.

Learners

This is an exploration of the learners characteristics: their experience; age; subject background; skills etc. (Mack, Mumford, Wilson, 1991).

The aim was to develop a staff development course to prepare staff involved in the support and delivery of video conferencing in the University's Campus Outreach Initiative. In running the pilot, it was important to select a department and individuals within that department which could best represent this wider target audience. As outlined in the introduction, the School of Nursing and Midwifery was targeted and in consultation with the School, a group was chosen.

The group included teaching and technical staff. The aim was to assist in the appreciation of each other's role and secondly, it was hoped that the training would help in fostering good working relationships. All staff had immediate need for training and the School envisaged that this group would act as the 'champions' and further support their colleagues in the effective use of video conferencing.

In assessing the training requirements of the learners, a Training Needs Analysis (TNA) questionnaire was administered, the purpose of which is detailed in the following chapter (Please see Appendix 1 for the questionnaire). Valuable information, regarding the characteristics of the participants and the culture of the organisation was also gleaned from the School and in observations of their working practices.

Outcome

In using the framework, each key area was addressed separately. With continual refinement and consideration of the inter-relation with the other key areas, a four-layered course design was developed, as illustrated in Figure 2. The starting point for the design was the objectives from which the themes emerged. Although these did not change from our original design, there was a long period of refinement, taking into consideration the most appropriate teaching methods, the resources available, the characteristics of the learners, and the need to be able to evaluate at each phase of the process.

The four-layered approach facilitates the gradual building of information and experience, exploring in particular, the pedagogical considerations of the planning and preparation of teaching that is required to deliver effective teaching in a video conferencing environment. As explained earlier, typically the first part of each session is set aside for lecturing, discussion and demonstrations and the latter part for hands-on giving the participants the opportunity to build up their confidence in using the equipment.
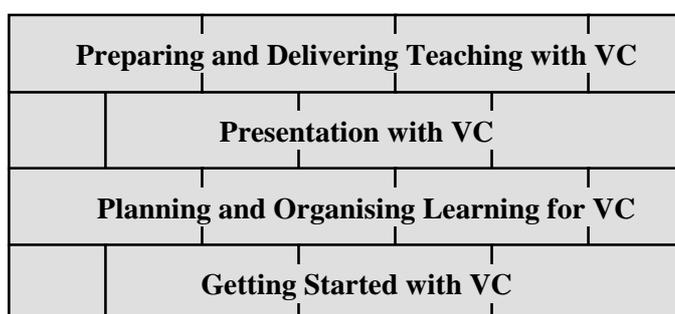
| Preparing and Delivering Teaching with VC |
| Presentation with VC |
| Planning and Organising Learning for VC |
| Getting Started with VC |

Figure 2 A Four-Layered Design to Effective Teaching using Video Conferencing

Getting Started in Video Conferencing

This first session, a foundational orientation and confidence building session, provides an introduction to video conferencing - basic terminology and key terms - and the role of video conferencing in the participant's school or department and the University.

Planning and Organising Learning in a Video Conferencing Environment

In this second session, the participants are given an opportunity to reflect on how they currently plan and organise their teaching and the methods and media used. What they perceive as the limitations of the technology or potential barriers to learning are then discussed and with this information, they are then asked to explore how they can apply their approach in a video conferencing context. Recommended guidelines for the planning and organising of teaching are provided. By the end of this session, the participants should have a clear understanding of the planning and organising of their lessons which they need to consider weeks before the video conferencing session.

Presentation with Video Conferencing

The focus on this session is on how the participants can prepare the environment, their material and themselves to deliver the most effective presentation. They should have an appreciation of common technical problems which may arise and the importance of having a contingency plan.

Delivering a Video Conferencing Session

This provides the participants with an opportunity to plan and organise five minutes of their teaching for delivery using video conferencing. On the day of the session, each of the participants are asked to deliver the presentation, to their colleagues, at the local site and a remote site. Constructive feedback is then provided on the preparation of the teaching and delivery technique.

Optional

Provision for a final session was made to facilitate any particular areas of concern or requirements that the participants may have, having completed the previous four sessions. It may be more appropriate to run this session after the participants have had an opportunity to use the technology in earnest.

3 Evaluation Strategy

Planning the evaluation

Successful evaluation begins with a plan (Tessmer, 1993) and to do this it is essential to begin by considering the purpose of the evaluation. When this has been decided, it is easier to identify when to evaluate and who should be involved.

Purpose of the evaluation

Within the context of course development and course delivery, there are many reasons why evaluation is important. In designing, developing and delivering this staff development course, the following objectives were identified:

- to identify the training needs of the intended participants to ensure that the course content and delivery meets their needs;
- to identify aspects of the course that need modification - this will lead to a more efficient and effective course; and
- to measure the extent to which the aims and objectives have been met - this will help to establish the appropriateness and validity of the course.

Phases of the evaluation

Based on these objectives the following three evaluation phases were identified: pre-course evaluation, formative evaluation and summative evaluation.

Pre course evaluation conducted during the analysis of the training requirements. This comprised a training needs analysis questionnaire which helped establish the scope of the course, both in terms of the course itself and the way in which it will be developed and delivered.

Formative evaluation conducted during development and delivery of the course. Such information informs the revision and modification of the course.

Summative evaluation carried out on completion of the course. This type of evaluation is usually designed to inform a review of the course before it is used again.

Each phase has the same broad objective: to produce the most effective course, right from the beginning of the development process.

Pre Course Evaluation

A number of different issues were considered in the training needs analysis including:

the frequency and nature of C&IT use among the target group. This helped establish the level of experience with IT, video conferencing and other CMC technologies such as email and the web;

the teaching methods and media used - these questions ensured that the training would focus on what the participants currently do in their teaching and what they hoped to do when using video conferencing;

the participant's perceptions of video conferencing - this gave an indication of the interest and motivation regarding video conferencing; and

in the case of the technical staff, the nature of technical support provided to staff in their teaching.

This information was gathered using a questionnaire (see Appendix 1 for the Training Needs Analysis questionnaire and Appendix 2 for detailed results of the analysis).

Results and Discussion

Eighteen out of twenty participants responded to the questionnaire.

The first category of questions were designed to assess the level of IT experience. The results, in Table 3 show that the majority had used a computer often or very often. However, apart from two, who use the web often or very often, the majority occasionally or never used CMC technologies and none had experience in using video conferencing.

How often do you use:	never	occasionally/ sometimes	often/ very often
computers	0%	23%	78%
e-mail	56%	17%	11%
web	61%	23%	0
video conferencing	89%	0%	0

Table 3 Level of C&IT Experience

The reasons for using the various technologies varied as can be seen in Table 4. The majority however use the computer for administration with a smaller number, 53% using the computer to support their teaching.

Technology	Reason for Use	
Computer	Teaching - lecture preparation and presentation.	50%
	Admin - related to teaching &	
	General - memos, general correspondence, spreadsheets	94%
Email	Communication with colleagues or students	13%
Web	Resource accessing information, researching topics	13%

Table 4 Reasons for using the technologies

69% of the respondents indicated that they use computers for the preparation of lectures. The types of usage included preparation of acetates, handouts, lecture notes and MS PowerPoint slides.

The second part of the analysis looked specifically at the teaching methods and media currently used. The results show that staff use a range of methods (Table 5: Teaching Methods) and media (Table 6: Teaching Media) in their teaching.

Teaching method	currently use	would like to use
lectures	72%	12%
tutorials/group discussions	72%	28%
practicals	56%	11%
case studies	33%	11%

Table 5 Teaching Methods

Interestingly however is that most respondents would only like to lecture when using video conferencing to deliver their teaching and only a small number are interested in using tutorials, group discussions, practicals and case studies.

Furthermore, apart from computer presentation, which more participants would like to use with video conferencing, they plan to use the other media less.

Teaching media	currently use	would like to use with VC
blackboard/white board	72%	22%
flipchart	72%	17%
OHP	72%	56%
slides	33%	22%
video	72%	28%
computer presentation	6%	56%

Table 6 Teaching Media

The purpose of the latter part of the questionnaire was to assess the participants' perception of video conferencing. From this information, their level of interest and motivation could be gauged. The results showed that they already had an appreciation of the benefits of video conferencing, especially those related to cost effectiveness. Regarding what they perceived as being the difficulties with video conferencing, most were concerned with how it may restrict their teaching. (Please see Appendix 2 for more detailed responses.)

The results of the questionnaire were very useful in informing the design of the course and helping assess the level of C&IT experience. Although the participants occasionally or never use CMC technologies, they all had experience of using a computer and 61% indicated that they already used a computer to prepare their teaching. More particularly, it highlighted the methods and media that they currently use and would like to use in video conferencing. It is interesting to note, that although a significant number used practicals, case studies and tutorial or group discussions, the most common approach, which they wanted to use with video conferencing, was lecturing.

Formative Evaluation

A number of different types of evaluation were carried out during the development and delivery of the course, including:

- expert review of the course outline; and
- debriefing with all trainers following each session.

Expert review of the course outline

A range of both internal and external experts were consulted to provide comments and feedback on three main issues:

- the content:
- is it appropriate to the target audience (both support and teaching staff)?
- does it address the appropriate issues?
- is it free from any important omissions?
- the sequence:
- are the issues being addressed in the appropriate order?
- the teaching methods:
- are the teaching methods appropriate?

It is preferable to have more than one expert evaluating the content to ensure these aspects are given a balanced evaluation. A further advantage of using expert reviewers, is that not only can they identify problems but they can also offer advice on how to resolve them (Phillips, 1997). Table 7 shows the review panel that was used.

Review Panel	Role
Manager of the Teaching Support Group, Computing Services	Advisor/trainer within QUB on use of technology in teaching and learning; user of video conferencing in teaching.
Lecturer in ICBL	User of video conferencing in teaching.
Staff development officer, QUB	Staff trainer, specialising in academic training, for example, teaching skills etc.
Head of Division in the School of Nursing and Midwifery Business and Contracts Manager	The clients - representing the target group. Some experience in the use of technology in the School and the potential use of video conferencing.
TALiSMAN Co-ordinator	Co-ordinator for the staff development strand of the Use of MANs Initiative (UMI).
Staff Development Co-ordinator and a member of the Centre for Learning and Assessment, Robert Gordon University, Aberdeen	Involved in staff development. Design and administer courses on video conferencing for staff.

Table 7 The Evaluation Review Panel

Debriefing with all trainers following each session

After each session, the trainers met to discuss and evaluate the session. Each session was discussed in terms of:

- any problem(s) identified;
- observed reactions of the participants;
- the appropriateness of the method used;
- scheduling of each topic - time taken; and
- general impressions regarding content and pacing.

This enabled any necessary changes to be made to the subsequent sessions and also to plan updates for future courses.

Summative Evaluation

Two types of evaluation were carried out:

- an evaluation of participant's reaction to the course; and
- an assessment of the learners' performance.

Participant's Reaction

This type of evaluation provides an analysis of the participant's attitudes towards the course. When the participants completed the course, they were asked to evaluate, via a questionnaire:

- the content of the course - did the instruction cover the right material; did they feel that they had learnt and understood the content;
- the training methods used on the course;
- the resources, that is, facilities and refreshments;
- the facilitators: their professionalism and presentations;
- beneficial and non beneficial aspects of the course - what had they found to be particularly clear, helpful interesting and what had they not; and
- any recommendations for change to the course.

Results and Discussion

In general, the results of the summative evaluation to the course were very positive. The following highlights some of the findings, but please see Appendix 4 for detailed results of the evaluation. The evaluation questionnaire used is in Appendix 3.

Regarding the content of the course, the participants agreed or strongly agreed with the comments relating to content of the course, see Table 8.

Statement	Strongly Agree
The content was relevant to my training needs	100%
The purpose and objectives of each session were clear	83%
I now have a better understanding of VC terminology	83%

Table 8 Assessment of the Content of the Course

In evaluating the course, it was important to find out what the participants felt about the methods that were used throughout the four sessions. The results in Table 9 show that there was a favourable response to the materials. When asked about the balance of teaching methods, only two thirds felt that the balance was good (Table 9).

Methods Used	Agree	Strongly Agree
There was a good balance between types of teaching (presentation, video, group discussion, hands on)	33%	67%
The material was presented clearly and in a logical sequence	17%	83%
Appropriate use was made of visual aids, materials and handouts	17%	83%

Table 9 Assessment of the Teaching Methods on the Course

This was again reflected in the next section of the questionnaire as the participants indicated that the practice sessions and the last session (opportunity to present using video conferencing) were the most useful. In addition, to providing them with the opportunity to practice what they had learnt, they also felt that it gave them an indication of their own ability and confidence in using the facilities.

None identified any of the sessions as being the 'least beneficial'. However, two of the participants felt that the first few sessions could have been used for practicing with the equipment. A suggestion was made to integrate some of these sessions to leave more practice time with equipment in later sessions.

Lastly, the respondents identified a need for further training in a) use of Microsoft PowerPoint and b) video conferencing – to try out more imaginative approaches to using the facilities.

An Assessment of the Learners' Performance

Session 4 provided an opportunity to assess the performance of the participants in making a presentation using video conferencing. This did not address all the issues covered on the course but provided an opportunity to assess the participants:

- verbal presentation skills;
- appropriate use of non-verbal communication;
- inappropriate or distracting behaviour;
- planning and preparation of their teaching material; and
- skill in using the technology, for example switching between cameras or using the document camera.

The participants were asked to plan and prepare a five minute presentation based on material they currently use in their teaching and to include any media, objects or teaching aids that they would typically use. The aim of this exercise was to provide the participants with an opportunity to apply what they had learnt from the previous sessions and give them the opportunity to deliver a session in a supportive environment.

The participants delivered their presentation to a local and remote audience and trainers assessed their performance (both locally and remotely). An observer from the Enterprise Unit in QUB was also present to comment on the presentation and delivery of the teaching. Performance was assessed via a checklist (please see Appendix 5). At the end of the presentations, general feedback was provided to all the presenters and the experiences of the participants were discussed.

This exercise did not enable us to assume that a successful performance was due only to the previous training sessions but it did however provide an opportunity to:

- assess some aspects of the participants' performance thus ensuring that they could use the technology effectively;
- provide feedback to the participants on the preparation of their teaching material;
- comment on the presentation of the teaching; and
- identify any weaknesses or mistakes which would indicate a need to change or modify the course.

Note: at time of writing this report, the summative evaluation is not complete as only half of the participants have completed session 4.

4 Review with Recommendations

Review

The aim of this case study was to design and develop a course which specifically addresses the teaching needs of staff involved in the support and delivery of teaching using video conferencing. This chapter comments on whether the course objectives, outlined in the first chapter, were met and on the multi service approach taken to the design, development and delivery of the course.

The results of the formative evaluation and the summative evaluation would indicate that the course has been successful in meeting its objectives. In particular, in assessing the learners' performance, all the participants scored highly and appeared to have adopted the recommended guidelines. At the feedback session, participants were very pleased with their experience and appeared to be more confident in their ability to use the technology.

In line with Leigh's (1996) comments, evaluation cannot be completed at this time as the benefits and value of the course will only be evident after a period of time has elapsed. To gain a more accurate picture of the effectiveness of the training, plans have been made to follow up a number of the participants. We will explore whether they found the course useful for the planning, preparation and delivery of their teaching. This evaluation will be conducted using structured interviews and observations.

The training was adopted to include both the teaching staff and the technicians who would be responsible for supporting their teaching colleagues in using video conferencing. It was felt that they would be able to support more effectively if they had an appreciation of the pedagogical needs of the teaching staff. However, the behaviour of the technicians during training, their feedback and that of the trainers, all indicated that extending the target audience in this way had not been successful. In hindsight, it may have been more productive to have provided separate technical orientated training and then included these technical staff in a more active role during the scheduled training sessions. In running the course again, this provision will be made.

As highlighted, the project team involved in the design, development and delivery, included the ICBL (institution supporting staff using technology); Computing Services, Audio Visual Services, Staff Development and Training Unit and the Enterprise Unit. This multi service approach ensured that there was a blend of skills and experience, complemented with the knowledge on delivery of staff development courses and most importantly, an understanding of the application of technology in the educational context. These service providers also have a role to play in the promotion, management and support of video conferencing technology in the university.

Recommendations

C&IT training should be driven by the pedagogical requirements of the teacher and student and not led by the technology.

From our experience of developing courses and using technology when delivering teaching, we have found that it is good practice to introduce technology within the existing teaching and learning context. In this way you are not training staff to use the technology, but are showing how technology can be used to support and enhance established teaching methods and modes of delivery. This is a basic recommendation that should always be considered when developing courses of this nature.

The following recommendations should be of value to anyone involved in developing and delivering video conferencing or other C&IT related training courses associated with distance learning.

Include the key service providers in the University

A multi service approach for the design, development and delivery of this type of training ensures that there is the necessary blend of educational, technical and presentational skills necessary.

These service providers also have a role to play in promoting, supporting and managing the video conferencing facility and its use within the University.

Provide training at a departmental level

Where possible the training should be provided at a departmental level. This allows the training to be in line with the strategic teaching and learning needs of the department. Therefore staff development should not only be servicing the needs of the individual but also those of the organisation. This is supported by Gibbs and Blackmore who believe that "… staff development becomes an adjunct to organisational development rather than a personal matter" (as cited by Maier et al (1997)).

In providing training at a departmental level, there is also a greater likelihood that staff will have similar experiences and can learn from and support each other. In our experience, when starting to use video conferencing, it is beneficial to have a colleague assist in the preparation of teaching and be available to support the delivery of the first few sessions. An evaluation of performance can then be carried out together and each can learn from the others experiences.

Where possible departmental support staff should be included in all video conferencing and C&IT related training. This provides an opportunity for an appreciation of the complementary roles of the teacher with their needs and the support staff with their technical expertise. Support staff should be encouraged to take an active role in video conferencing and C&IT related training. From our observation and the results of the summative evaluation it may be more beneficial to provide prior technical training.

Involve senior staff

Ownership for the development, delivery and support of training should be at all levels to ensure optimum integration and uptake of the new technology. Having the approval and support of senior staff can give creditability to the training, establishing it firmly within the existing departmental structures. Support has to be visible, for example, written endorsement or attendance at the training. In our training, a senior member of staff was invited to come along to the first session and give an overview of the role of video conferencing and distance education in the School of Nursing and Midwifery. In further sessions, reference back to the content of this address helped establish the training provision firmly within the department's infrastructure.

In addition to the visible involvement of senior members of staff, we requested that the department carry out the administration of the course, for example, selecting appropriate staff for the training and contacting them regarding date and venue. We felt that this improved co-operation and absolved us from these administrative duties.

Be clear about the objectives of the training

Underpinning effective teaching with video conferencing is the requirement for good communication and presentational skills and good teaching practices. When designing training, it is important to be clear about the boundaries of the training, that is, the aim of video conferencing training should not be to teach the basics of good presentation or effective teaching. These underpinning skills should be addressed in other staff development courses and built upon in video conferencing training.

In the initial session, a member of the STDU at the University was invited to highlight the role of the unit within the University and the services and courses which they facilitate. Emphasis was placed on the courses which would complement training in video conferencing, for example, *Small Group Teaching*, *Developing Student Groupwork Skills*, *Preparing and Giving Lectures*.

Use a methodical approach in designing training

When designing training, it is important to identify and explore all relevant components as early as possible. We would recommend using an approach, like the MORAL framework, as it provides a checklist and a means of cross referencing that all components and their interrelationships have been considered. The framework was also useful in evaluating and communicating progress with all project team members.

Think carefully about who delivers the training

The trainers can greatly affect the shape and style of your training. They should have previous experience in C&IT training and ideally, have experience of using the technology to teach. This ensures that they will have first hand knowledge of the subject area and can empathise with participants, appreciating their fears and anxieties. They can also share experiences and suggest innovative applications of the use of technology.

The delivery of the training was primarily facilitated by a member of staff from ICBL who is involved in the use of video conferencing in a teaching context. Support was provided by staff from CS, AVS and STDU. In the initial session, it was made clear that the training would not focus on the technology, but rather in preparing them to make best use of the technology in their teaching. Summative evaluation indicates that the participant's attitude towards the facilitators was very positive and that the pitch of the training was appropriate.

More generally, trainers should be aware of the pressures 'real' or 'perceived' which staff may experience when setting out to use technology. There is need for an understanding of the adoption cycle of introducing new technologies and being sympathetic to resistance to change.

Include good and innovative use of the technology

In addition to the content of the training, the practices of the trainers can illustrate good and innovative use of the technology. We would recommend that you illustrate the potential of the technology by using it were appropriate. A very simple example, which we believed was successful, is the use of Microsoft PowerPoint with data sharing for presenting the lectures during the training. The summative evaluation showed that a number of the participants requested training in the use of Microsoft PowerPoint as they had seen the potential of both data sharing and the convenience of using a presentational package.

Where possible it is beneficial to deliver the training in context. Typically the first part of each session was set aside for lecturing, discussion and demonstrations and for the latter hands-on session, 'two sites' were linked. This gave the participants an opportunity to not only use the technology, for example, to use the remote control or document camera, but it also enabled them to communicate over the video conferencing link and get the feedback from the other group. In communicating with the other group, they realised the importance of voice clarity and projection and how to deal with the effect of the time delay.

Balance your training methods

A balance of training methods is required to ensure that the participants are given the opportunity to acquire information, assimilate and reflect on it, view it in their own context and gain experience themselves.

Evaluations to date have been very positive in terms of the content and teaching methods with the participants finding most benefit from the practical and hands-on sessions. We feel however that this was in part due to the information and preparation carried out in the first part of each session. The hands-on approach should ideally be structured to ensure maximum effectiveness. In our experience, the first time the participants used the facilities they were enthusiastic and asked questions but were hesitant to use the equipment themselves. In reviewing this, we decided to structure this part of the session and 'forcefully persuade' them to experiment. Giving the participants a set of activities to

work through appeared to give them the confidence to use the equipment and then experiment for themselves.

Throughout the training, the participants were encouraged to reflect on their teaching style and the material and teaching aids they use. These experiences also helped them to re-evaluate their teaching in a traditional setting. For example when demonstrating features on a model of the infant skull, the participants concluded that it would be advisable to have additional teaching models sent to the remote site. It also prompted the observation that in traditional teaching in a large lecture theatre, the detail cannot possibly be seen by all students.

The discussions and participative approach provided insight into the needs and requirements of the participants but also helped develop our understanding of how participants feel when using video conferencing for the first time. The discussions not only informed the content and direction of the training, but also helped evaluate the training and identify areas for revision.

Make the trainees aware of the potential barriers to learning

To use the technology effectively, staff need to have an appreciation of the limitations of the technology. In addressing these 'potential barriers to learning' suggestions can be made on how to cope and manage the effective delivery of teaching.

In the training, the participants were divided into groups to discuss the methods and media they currently use. They were then asked to identify any potential difficulties that they could foresee in using their methods and media in a video conferencing context. From this discussion, difficulties, such as, managing a classroom at a distance; enabling interaction and student involvement, were identified. This discussion was then developed, giving an indication of why they may arise and constructive ways in which these may be addressed.

5 Conclusions

The period of the analysis, design, development and delivery of this training was from November 1997 to April 1998. Formative and summative evaluation carried out during this process has identified modifications to the training. These have now been made and the training programme will be advertised through our Staff Development and Training Unit. The paper based information created for the course has been collated into an accompanying course booklet.

It is our intention to hold a follow-up workshop, in a few months time, to explore the innovative use of video conferencing to deliver teaching. Further needs analysis will also be carried out to identify training requirements in the associated CMC technologies of distance education.

As highlighted in the introduction, the Higher Education community is under immense pressure to ensure that both staff and students are trained and in a position to make best use of C&IT technologies in their teaching and learning technology. This training course only addresses one aspect of this successful integration, as students also require training. Research, carried out in ICBL, indicates that students experience problems and difficulties with technology (Cole, U and Armitage, K. 1997). Complementary training and support is required to address student needs and ensure that the use of the technology is seen as an advancement for, not as an obstacle to, their learning.

Finally, key service providers have a role to play in the design, development and delivery of training in the use of technology. These service providers also have a role to play in promoting, supporting and managing the video conferencing facility and its use within the University. What is not clear, is the definition of these roles but a unified approach is needed to avoid duplication and fragmentation in services.

6 References

Advisory Group On Computer Graphics (AGOCG) *Managing, Delivering and Supporting Lecture Room Services for the Multimedia Age - A Workshop Report.* Prepared by AGOCG an initiative of the Joint Information Systems Committee (JISC) of the HE Funding Bodies and the Research Councils.

Brown, G., Atkins, M. (1988). *Effective Teaching in Higher Education.* London, Routledge.

Cole, U., Armitage, K. (1996). *Delivering a Course Using Video Conferencing - the student perspective*. Paper delivered at the European Lifelong Learning and the Information Society (ELLIS) - an Educational Media Association of Ireland (EMAI) conference & workshop, Dublin, September 1996.

Latchem, C., Lockwood, F., (eds) (1998). *Staff Development in Open and Flexible Learning.* London, Routledge.

Lee, M., Greenwood, L. *Evaluating the use of Video Conferencing in the delivery of an Outreach Programme* (in preparation). The Institute of Computer Based Learning, The Queens University of Belfast.

Leigh, D., (1996) (2nd ed). *Designing and Delivering Training For Groups*. London, Kogan Page.

Mack, D; Mumford, A, Wilson (1991). *A Guide to the Production of Training Materials.* Loughborough University of Technology; ITTI Information Systems Committee of the UFC.

Maier, P., White, S., Barnett, L. (1997). *Using Educational Development Strategies to Integrate Learning Technoogies within a HE Institution*. Interactive Learning Centre, University of Southampton.

Reece, I., Walker, S., (1997) (3rd ed). *Teaching, Training and Learning A Practical Guide*. Tyne and Wear, Business Education Publishers Ltd.

Tessmer, M., (1993). *Planning and Conducting Formative Evaluations*. London, Kogan Page.

PREVIOUS SIMA REPORTS

Butters, L., Clarke, A., Hewson, T., Pomfrett, S. (1994). *The Dos and Don'ts of Video conferencing in Higher Education.* HUSAT Research Institute, Loughborough University of Technology at http://www.man.ac.uk/MVC//SIMA/video1/front.html.

Riebold, P. (1995). *Dos and Don'ts of Video Conferencing - Experience from LIVE-NET*. Multi Media Support and Communications Centre, University College London at http://www.man.ac.uk/MVC//SIMA/livenet/contents.html.

Carter, C., Clarke, A., Graham, R., Pomfrett, S. *The Use of Videoconferencing in Higher Education* at http://www.man.ac.uk/MVC//SIMA/video6/title.html.

Coventry, L. (1995). *Video Conferencing in Higher Education*. Institute for Computer Based Learning, Heriot Watt University at http://www.man.ac.uk/MVC//SIMA/video3/contents.html.

Schnurr, C. Smith, C. (1995). *Video Conferencing in Education: Meeting Teachers and Learners Support and Training Needs*. Institute for Computer Based Learning, Heriot Watt University at http://www.man.ac.uk/MVC//SIMA/video4/title.html.

A Staff Developers' Briefing on Video Conferencing (May 96)at http://www.man.ac.uk/MVC//SIMA/sdu/toc.html.

The Course Content was informed by:

Freeman, M (1996). *Video conferencing: a solution to the multi-campus large classes problem*? Paper presented at ASCILITE 96, Adelaide, South Australia at http://www.ascilite.org.au/conf96/23.html.

Video conferencing for learning at http://www.kn.pacbell.com/wired/vidconf/.

Organizing a Video Conference at http://www2.tvo.org/education/resources/vidconf/vidconf.html.

Distance Education at a Glance. A Series of Guides Prepared by Engineering Outreach at the University of Idaho at http://www.uidaho.edu/evo/distglan.html.

7 Appendices

Appendix 1

Training Needs Analysis Questionnaire

The purpose of this questionnaire is identify your video conferencing training requirements. This information will be of great value in planning your training course so please complete the form as accurately and as frankly as possible. It should take no more than 10 mins.

A   *This section will provide us with details about you and your current use of IT.*

Name _____   Department _____

How often do you use:

	never	occasionally	sometimes	often	very often
computer?	☐	☐	☐	☐	☐
e-mail?	☐	☐	☐	☐	☐
web?	☐	☐	☐	☐	☐
video conf?	☐	☐	☐	☐	☐

Please indicate reasons for using:

computer   _____

e-mail   _____

web   _____

video conf   _____

B 1   *Please answer the following questions ONLY if you are to provide technical support for VC.*

This section will provide us with information on your experience of support provision.

Have you provided technical support to staff in their teaching?   Yes ☐   No ☐

If yes, what was the nature of the support? (setting up equipment, advice on best use of technology, trouble shooting)
_____
_____
_____
_____
_____

Please continue to section C

Please answer the following questions ONLY if you plan to use VC for teaching.

B 2   This section will provide us with information on your current teaching practices and how you would like to use VC.
Which of the following teaching methods

(i) do you currently use in your teaching?   *(ii) would you like to use with video-conferencing?*

lectures	☐	lectures	☐
tutorials	☐	tutorials	☐
group discussions	☐	group discussions	☐
practicals	☐	practicals	☐
case studies	☐	case studies	☐
others	☐	others	☐

Which of the following media

(i) do you currently use in your teaching?   *(ii) would you like to use with video-conferencing?*

blackboard/whiteboard	☐	blackboard/whiteboard	☐
flipchart	☐	flipchart	☐
OHP	☐	OHP	☐
slides	☐	slides	☐
video	☐	video	☐
computer presentation	☐	computer presentation	☐
other	☐	other	☐

Do you use a computer for the preparation of your lecture?   Yes ☐   No ☐

If yes, please comment

_____
_____

C   *This section will provide us with information on your perception of VC.*
What do you perceive as being the benefits of video-conferencing?

_____
_____

What do you perceive as being the difficulties with video-conferencing?

_____
_____

Please add any further comments that you would like us to consider when planning your VC training.

_____
_____

Appendix 2

Summary Results of Training Needs Analysis

The following is a summary of the results of the training needs analysis which was used to inform the design of the course.

A C&IT Experience

	never	occasionally	sometimes	often	very often
computer		17%	6%	50%	28%
e-mail	56%	17%		11%	
web	61%	17%	6%		
video conf.	89%				

Reasons for using the technology

Computer		Teaching : Lecture preparation and presentation.	50%
		Administration: Related to teaching eg administration of programme. General eg memos and general correspondence, spreadsheets	94%
Email		Communication with colleagues or students	13%
Web		As a resource accessing information, researching topics	13%

B2 – Methods and Media currently use and would like to use with VC

Methods

	do use		would like to use
lectures	72%	lectures	12%
tutorials	72%	tutorials	28%
group discussion	72%	group discussion	28%
practicals	56%	practicals	11%
case studies	33%	case studies	11%
others	11%	others	0%

Media

	do use		would like to use
blackboard/white board	72%	blackboard/white board	22%
flipchart	72%	flipchart	17%
OHP	72%	OHP	56%
slides	33%	slides	22%
video	72%	video	28%
computer presentation	6%	computer presentation	56%
others	0%	others	6%

Use of the computer for preparation of lecture

YES   61%

NO   6%

unanswered   33%

69% of the respondents indicated that they use computers for the preparation of lecture. The types of usage included preparation of acetates, handouts, lecture notes and MS PowerPoint slides.

One participant commented that the use of the computer for preparation and administration is a poor use of expensive and versatile equipment. They felt that it would be much better to have a computer link for the use of e-mail and the WWW.

C - Perception of VC

The benefits of VC outlined by the respondents can be categorised as follows:

Lectures, demonstrations and meetings can be held where participants may be separated by large distances. This would be more efficient; less travel and duplication of work and more cost effective

Increased access for students to programmes without having to travel

Wider audience over a greater geographical location

More effective use of specialist knowledge and skills

The difficulties of VC outlined by the respondents can be categorised as follows:

Teachers/lecturers need to be trained eg in presentation techniques suitable for video conferencing

Technology can breakdown

Students have to learn to adaptation to receiving lectures etc this way

Restricts teaching: debate and discussion may be restricted; unable to move around when talking

Less personal eg lack of face to face interaction, difficulty in establishing a rapport/learning relationship with remote groups of students.

The respondents identified very little for us to consider other than they required plenty of notice of the training schedule. Some of the respondents commented that they felt there was a need for this type of training.

Appendix 3

Summative Evaluation Questionnaire

The purpose of this questionnaire is to assist us in evaluating this training course. Your comments will make a valuable contribution to our evaluation and subsequent revision of the course, so please complete it as frankly as possible. The questionnaire will take approximately 10 minutes to complete.

Your name: …………………………………………………….   *(You may leave this blank if you wish)*

Content *(Please tick the appropriate selection for each item)*	*Strongly* Disagree	*Disagree*	*Uncom-mitted*	*Agree*	*Strongly* Agree
1. The content was relevant to my training needs.	☐	☐	☐	☐	☐
2. The purpose and objectives of each session were clear.	☐	☐	☐	☐	☐
3. I now have a better understanding of VC terminology.	☐	☐	☐	☐	☐

4. Are there any issues or topics which you feel should have been covered? Please comment.

_____

_____

Methods used on the course *(Please tick the appropriate selection for each item)*	*Strongly* Disagree	*Disagree*	*Uncom-mitted*	*Agree*	*Strongly* Agree
5. There was a good balance between types of teaching (presentation, video, group discussion, hands on).	☐	☐	☐	☐	☐
6. The material was presented clearly and in a logical sequence.	☐	☐	☐	☐	☐
7. Appropriate use was made of visual aids, materials and handouts.	☐	☐	☐	☐	☐

Resources *(Please tick the appropriate selection for each item)*	*Strongly* Disagree	*Disagree*	*Uncom-mitted*	*Agree*	*Strongly* Agree
8. The facilities (rooms, coffee) were adequate.	☐	☐	☐	☐	☐
9. The handouts/support material provided were useful.	☐	☐	☐	☐	☐

During the course, the facilitators *(Please tick the appropriate selection for each item)*	*Strongly* Disagree	*Disagree*	*Uncom-mitted*	*Agree*	*Strongly* Agree
10. were enthusiastic.	☐	☐	☐	☐	☐
11. showed interest in our progression.	☐	☐	☐	☐	☐
12. were professional in their manner.	☐	☐	☐	☐	☐
13. responded positively to our enquiries.	☐	☐	☐	☐	☐

14. were well prepared.   ☐   ☐   ☐   ☐   ☐

General Comments

15. Which session(s) or part of session(s) were the most useful? Please give reasons.

_____
_____

16. Which session(s) or part of session(s) were least beneficial? Please explain why.

_____
_____

17. Have you identified any further training as a result of this course? Please comment.

staff development courses   _____

general IT   _____

further VC training   _____

18. Would you recommend this course to your colleagues? If so, why? If not, why not?

_____
_____

19. Please include any further comments that may assist us in revising the course.

_____
_____
_____
_____
_____

Thank you for your co-operation

Appendix 4

Summary Results of Summative Evaluation

This is a summary of the results received to date on the course summative evaluation.

	Agree	*Strongly* Agree
Content		
1. **The content was relevant to my training needs.**		100%
2. **The purpose and objectives of each session were clear.**	17%	83%
3. **I now have a better understanding of VC terminology.**	17%	83%

4. Are there any issues or topics which you feel should have been covered? Please comment.

No comments provided

		Strongly Agree
Methods used on the course	Agree	
5. **There was a good balance between types of teaching (presentation, video, group discussion, hands on).**	33%	67%
6. **The material was presented clearly and in a logical sequence.**	17%	83%
7. **Appropriate use was made of visual aids, materials and handouts.**	17%	83%
Resources	*Agree*	*Strongly Agree*
8. **The facilities (rooms, coffee) were adequate.**		100%
9. **The handouts/support material provided were useful.**		100%
During the course, the facilitators	*Agree*	*Strongly* Agree
10. **were enthusiastic.**		100%
11. **showed interest in our progression.**		100%
12. **were professional in their manner.**		100%
13. **responded positively to our enquiries.**		100%
14. **were well prepared.**		100%

General Comments

15. Which session(s) or part of session(s) were the most useful? Please give reasons.

Practice sessions - need more time using the equipment

All sessions valuable, especially practical ones

Practical application, personnel experience of presenting

All were useful, more practical sessions were needed. Last session most beneficial

The last session - very useful to get hands on

5 min presentation - gave indication of my own ability

16. Which session(s) or part of session(s) were least beneficial? Please explain why.

All sessions were beneficial - some time wasted in the first few sessions that could have been used for practising with the equipment. Add some of these sessions together and leave more practice time with equipment in later sessions.

All sessions were helpful

All sessions beneficial

17. Have you identified any further training as a result of this course? Please comment.

staff development courses   none

general IT

powerpoint X2

further VC training

more practice

further VC training between Altnagalvin and Belfast

This would be very useful, perhaps as we get used to the basics to try out more imaginative approaches

further vc training

18. Would you recommend this course to your colleagues? If so, why? If not, why not?

Yes - gives you knowledge re. the basic skills needed to use the equipment and presentation etc.

Yes

Yes good for confidence building in IT

Most definitely as it is going to be utilised

Yes

Yes a must if VC is to be used in Nurse education

Please include any further comments that may assist us in revising the course.

Enjoyed the course many thanks

Overall valuable

Very valuable and enjoyable learning opportunity

More practical sessions, otherwise a very worthwhile course

Thanks to all three tutors. Really appreciated the discussions especially. Perhaps hands on earlier with short presentations as we are all teachers just getting used to the equipment is most beneficial.

Excellent course - would highly recommend it to all my colleagues - Many thanks

Appendix 5

Checklist for Video Conferencing Presentation

Staff Development Course in Video Conferencing

Presentation Checklist

Verbal presentation

Speaks clearly slowly and continuous   _____

tendency to mumble   _____

uses 'um' and 'er' _____

too far from microphone   _____

periodically moves away from microphone   _____

change in intonation of voice _____

Shows interest in all participants

Appropriate use of non-verbal communication

Demonstrates interest and enthusiasm   _____

Looks at audience ie makes eye contact _____

Movement is fluid and non-distracting _____

Maintains appropriate on-camera positioning   _____

Inappropriate/distracting behaviour

Fiddles with keys, pens money, earrings   _____

Preparation

Materials (lecture notes and audio visual) organised and ready to present   _____

Prior thought to equipment needed   _____