Video conferencing in unisa social work practicals: structure and strategies

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ABSTRACT

This article describes participatory research by lecturers using video conferencing systems and an instructional designer. This research article sets out to describe a project during the consolidation stage of using video conferencing to support learners: the establishment of quality dialogue, strategies and methodologies in Social Work practicals at the University of South Africa (Unisa). The researchers found that this study confirmed the importance of a number of presentation aspects concerning lecturer-student “apartness and psychological distance”. During this study, different types of video conference interactions emerged: those related to evaluation, needs analysis, guidance, discussion, and examination preparation of the students. The combination and repetition of these interaction sessions proved the contact via video conferencing to be successful as a medium for focused guidance in social work studies. The experiences of lecturers and students are described. However, interaction has to be planned and deliberately implemented between individual students, student groups at a site, students at different sites, or students and the lecturer; it does not just happen, either in audio or video conferencing.

INTRODUCTION

The emergence and use of information technology has confronted higher education with a number of issues. Some developments have been positive, such as the support for lifelong learning through expanded access, and the reorganisation of curricula for self-study. On the other hand, issues regarding the quality of education have come into the limelight in the face of diminished resources, pressure for increased output (Goldschmid 1997; Drucker 1989; Barr & Tagg 1995:13; Knight & Moore 1997) and the pressures of moving away from an information society to a knowledge society (McBeath 1992:166). Another serious issue that confronts distance educators at mega universities such as Unisa is the suitability of the learning and learning methodologies for new instructional technologies such as video conferencing.

Unisa has used two-way audiovisual video conferencing as a teaching and communication medium in a distance-education environment since 1993. Mitchell (1997:6-8) identifies three stages in implementing video conferencing in an organisation: the planning, pilot and consolidation phases, and describes some critical success factors for these stages. He warns that "(m)any organizations stumble at this crucial point (consolidation stage), because critical success factors are not achieved". In the first four years at Unisa the focus was on the planning stage in order to:

- establish video conferencing at the university with a needs analysis
- consider the strengths and weaknesses of the new technology within the specific learning environment
- prepare documents indicating the various applications of video conferencing within the specified environments
- specify technology to meet the needs
- obtain support from all stakeholders

This was followed by a pilot stage from 1994 in which:
• early users were identified
• instructional or training sessions were planned
• extensive training was provided
• the applications of the medium in distance-education courses were initiated
• the findings were reported (see Heydenrych 1996).

However, there still existed an urgent need to address the consolidation phase of video conferencing at Unisa in which:

• the frequency and the spread of use would be extended
• the technical support systems would be analysed and corrected
• support roles would be analysed and philosophical adjustments made to suit the environment
• an ongoing management structure would be established
• management decision-making tools would be developed
• policies, protocols and procedures would be finalised
• application strategies and methodologies appropriate to the environment would be researched and refined
• quality control mechanisms, training and evaluation processes would be developed and maintained (adapted and extended from Mitchell 1997:7-8).

The purpose of this research article is to describe part of the consolidation stage of one such project using video conferencing in a large distance-education institution: establishing quality dialogue, strategies and methodologies for video conferencing in Social Work practicals at Unisa. This was thus a collaborative action research project between the Bureau for University Teaching (BUT) and the Department of Social Work at Unisa.

The Unisa degree in Social Work is a four-year degree where students receive a self-study package and are required to participate in numerous practicals (called laboratory programmes and practical sessions) for completion of the degree. These sessions require Social Work lecturers to travel extensively nationally at great cost to the university. The research aim was to:

• restructure the student contact, replacing some of the face-to-face sessions with effective practical contact via video conference
• reduce the costs involved in staying in contact with the students
• establish benefits, limitations, and an altered appropriate dialogue between participants within the video conference environment.

This research does not compare various media as every medium creates unique interactions, topics, and learning environments. “(N)o learning benefits (are) to be gained from employing any specific medium to deliver instruction” (Clark 1983:445).

Research has indicated that the various roles of instructional designer, technology expert and instructor should be involved in a project (Kelly 1990; Moore 1987). During this study an instructional advisor from BUT assisted faculty members (lecturers) in their facilitation of effective learning. The focus was on implementing changes to the curricula, and developing the lecturers’ skills in the use of video conference technology and facilities within an open distance environment such as Unisa.

THE PROJECT

Both the departmental needs and the existing teaching-learning environment were analysed in order to dovetail these with the video conference environment. This would provide the distance-learning student at Unisa with a situation in which the structure, strategies and methods had been appropriately adapted and refined.
Social Work practicals and laboratory sessions

In the Department of Social Work students use text books, guides and tutorial letters in their study. The distance-learning component is supplemented by required attendance at practical sessions to discuss, in a face-to-face manner, their own case work. Social Work lecturers travelled extensively to assess all students and to provide the necessary guidance during practicals. The video conference system was planned as a partial replacement for these short face-to-face contact sessions. The video sessions were not to replace all personal contact with the student, but were planned to contribute towards more frequent, effective contact between students, lecturers and supervisors.

The Department of Social Work at Unisa is unique in the sense that the students have to do practical work within a distance-education environment. The practical work includes students' work with individuals, families, or groups within communities. In this study the students did their practical work in welfare organisations or non-governmental organisations (NGOs) and were supervised weekly by appointed supervisors. The students also had contact with their lecturers, who constantly monitored their work by means of laboratory programmes, practical sessions and evaluation sessions.

During Social Work practicals via the video conferencing system, the lecturer could use face-to-face discussions with the students, could discuss diagrams and pictures via the computer or document camera, could illustrate the discussion with a simulated or real scenario by means of video, and could allow different groups to discuss issues with one another. The laboratory, practical and evaluation sessions were usually scheduled by the lecturers but the students, coordinators and supervisors at the regional offices were free to request sessions as needed.

The focus of the regular discussions via video conferencing was for students to:

- share experiences with one another
- discuss issues
- stay motivated
- integrate practice and theory
- take part in the assessment of their own learning
- brainstorm the definition, management, and facilitation of the process of problem, issue or context analysis of social work cases.

Students were required to discuss the case study work within a collaborative environment created through video conference sessions. (DyKes & Mosby (1995) also refer to this type of dialogue which can be created within the video conference environment.) During this study students were encouraged to find creative ways of dealing with various problems encountered during the practical work, and also to put into practice some theoretical ideas and therapeutic skills in various ways, according to different personalities which were presented via diverse problem scenarios in differing contexts. Students were encouraged to sketch case studies from their own experiences which they deemed threatening or puzzling. These and other case studies were then explored and illustrated in terms of the theory, values and skills required in practice. This was done either with individual students, or within small groups.

The video conferencing environment

Contact sessions in Social Work took place between the university's existing video conferencing centers in Pretoria (head office), Durban, Cape Town and Pietersburg, using two 64K ISDN lines. Each of these "sites" was equipped with a video conferencing system which was a compatible, adaptable PictureTel 4500 system and included: cameras (a video camera and a document camera) to take pictures of participants and of documents; view monitors on which students could see the lecturer and vice versa; microphones enabling all participants to hear one another clearly; and modems connected to hubs and to ISDN telephone lines which transferred the audio, visual and data elements. Although they were not
used by the department, the site was also equipped with video machines (one to record sessions and one to play videos to students when on a call at the main site) and a multimedia computer to display illustrations, present electronically prepared presentations, or play sound or video clips. Using this setup, the Social Work lecturers managed the practical sessions, promoted dialogue, and discussed issues with students and supervisors in a collaborative way. The equipment was of the highest quality, and no lighting, sound, or timing problems were experienced (as had been the case in other research such as that by Simpson, Pugh & Parchmans (1991)). The only weak link in the system was the “dropping” or cutting out of the telephone connection on some days; reconnection of the lines could usually be established.

RESULTS

Cost-saving implications

There are a number of cost implications that affect the choice of whether contact or video conference sessions should be used, such as travel and subsistence expenses for each lecturer per trip, the number of students that come to the session, the equipment costs, room use costs, line rental and call costs (Mitchell 1997; PictureTel 1998). Added to these obvious costs one has to consider the productivity time loss for lecturers, the invaluable ability of lecturers to manage more students per course and, in video conferencing, the intangible cost saving of better-focused time spent during discussions (up to 30%, according to PictureTel (1998)) and accelerated feedback to students to improve learning.

A cost analysis of the video conferencing and contact sessions indicated that for a three-day-long laboratory session it would pay for lecturers to be physically present at the nationally distributed sites and deal with as many students as possible. The equivalent video conference sessions would be too costly. In contrast, for short contact practice sessions of five hours, travelling costs were too expensive, so costs were minimised when video conferencing was used. (A similar cost analysis of the department’s evaluation sessions could also be beneficial.)

It was clear that the short video conference sessions were still cheaper than those in previous studies conducted (Simpson, Pugh & Parchmans 1991; Telg 1996) owing to the fact that no full-time technical operators were necessary, line lease costs were drastically lower, and equipment costs were lower. However, it is true that cost analyses in distance education should always be considered within the structure of the overall learning design. It is more beneficial to consider the advantages and limitations of costs for the institution as a whole, than for one study at a time (as also indicated by Mitchell (1997) after various Australian studies). In education, learning gain or loss and lost opportunities are also impossible to quantify in monetary terms. These aspects make it risky to focus on cost analyses without taking the unique distance-education environment into consideration.

Experiences when using the video conference system for Social Work practicals

The study showed that sessions were perceived as being of particular value to the Social Work lecturers and students. The guidance and facilitation of the learning process had to take place within a student-centred, friendly, empathic, non-threatening atmosphere. Learners felt that they could trust the lecturer. The sessions had a feeling of “freshness” because of the novel interactions that took place.

It was important for learners to feel free to provide immediate feedback during the video conference sessions. They responded well by sharing their experiences as adult learners within the groups and individually with the lecturers.

Participants also found that, although they were using video conferencing as a medium, values and professional practice were portrayed clearly. Lecturers perceived that they were more in tune with what professional practice and society required in the field of social work and that they were able to adapt the curriculum accordingly. Video conferencing, as used by
the Social Work lecturers in this study, took the lecturer out of the ivory tower into the world of
the student.

Within these sessions students shared their experiences, not only with the lecturers but also
with the group members. They learnt from one another’s case studies and experiences; they
learnt to do things themselves, to focus on independent study, to be responsible, to self-
actualise the outcomes of their learning, to be performance-oriented, to use enquiry methods
more frequently, and to function within a democratic, highly technological environment
(aspects which correspond to some of the transformational changes for education named by
McBeath (1992:167) as being necessary if higher education is to be successful in the
Information Era).

These sessions highlighted the personal and group contact, and supplied an environment
where guidance could be provided to learners. During the sessions the lecturer(s) consciously
created a context of mutual participation and sharing of ideas regarding theory and practice.
Here the video conference facility provided an excellent opportunity for creating such a
participatory context for dialogue in an environment of mutual trust, even though the lecturer
and student were physically many miles apart.

The researchers felt they addressed the issue of responsiveness that could “lead to the
incorporation of the perspectives and values of previously silenced groups into the
educational and cognitive culture of institutions” and of increased accountability (NCHE

The fact that the student was alone in a room away from anybody else was, upon reflection,
strangely an advantage. The student reflected as if alone in the psychologically remote area,
but also reacted immediately and personally to the lecturer. This shows that the video
conferencing method bridges the physical distance in distance education; the psychological
distance, however, has to be overcome by using innovative teaching strategies.

The preparation for and presentations of video conference sessions in general were time
consuming. Lecturers in the study felt that they had to pay special attention to general
presentation techniques and to the development of a trustworthy collaborative environment.
Lecturers and students had to build respect for one another, which took more than one
session and special techniques to accomplish.

Lecturers had to listen very carefully to the students and they had to continually focus on
giving due value to the student as a person and to the student's input. This included helping
to raise questions (especially initially), and to phrase concerns and issues clearly during
sessions. This meant that lecturers had to be open to self-reflection at all times. Moreover, as
professionals, lecturers have a responsibility to respect confidentiality.

In Unisa’s distance-education environment, the students saw the lecturer - the face behind
the distance-education text in most cases - and as professional and mature students got to
know how the lecturer's mind worked.

The lecturers did return to the office after the short on-campus video conference sessions,
which meant overall office absenteeism was reduced, and necessary student contact was
increased. Lecturers concluded that the time savings were accompanied by added
advantages, such as their being available to colleagues and to other students, being at home
at a normal time, and not having to cope with travel pressures. Although stress and burnout in
a teaching situation has only been researched to a very limited extent (see Kurland & Salmon
1992; Ross 1993; Bondareva, Kovaleva & Lebedev 1996; Brooks & Riley 1996; Cronje 1993)
lecturers felt that these time savings could help to reduce perceived stress and burnout as
experienced by Social Work lecturers at distance-education institutions. The research dealt
with stress and burnout factors, aspects that might curb it, and some consequences. At
Unisa, a very large distance-education institution, the environment makes the management of
time at hand important; but time management in this environment has not yet received much
research attention. Some factors which influence time management are the very large student numbers affecting the student-lecturer relationship, the times required in travelling to remote areas to conduct personal practical sessions, and the additional roles of course designer, administrator, researcher, evaluator, tutor, and counsellor the distance educator has to fill. It seems that burnout and stress of Social Work lecturers and supervisors and the factors that affect them need more research.

In this study curriculum changes included instituting an integrated approach to theory and practice in the total instructional programme (as also suggested by Marton & Saljö 1976) and a focus on process education. The components of process education include improved communication and dialogue, better interpersonal relationships, better teamwork, improved critical thinking, ease of use of technology, and appropriate assessment. Innovative problem solving, honing of decision-making skills, participatory collaborative learning and needs-based active participation are also components (Du Toit et al 1989; Schenck 1999; Freire 1998; Rogers 1989; Regulation 452 of 1998 under the South African Qualifications Authority Act, Act 58 of 1995, section 7(3); and also Lawrence 1995:146). More specifically, Grey (1996) indicates that the emphasis in Social Work curriculum changes should be towards the inclusion of moral sensitivity, awareness, understanding and reflection. Students focused on interdependent outcomes and individual learning, empowerment through what was learnt, meta-reflection on how the learning was done and on the structure and pace of the learning. The researchers in this study found that the deep learning needs of the students, and the needs of the involved society presented in the case studies guided the changes in the curriculum. Thus lecturers effectively used video conferencing resources and strategies to develop the skills required in social work for an emerging knowledge society.

Different types of interactions that developed during Social Work video conference sessions

Different types of interactions took place during the practical programmes presented within the video conferencing learning environment. These were:

- needs analysis interactions to establish learning needs
- guidance type interactions to establish learning gains, simulate scenarios, and establish performance during practical work
- discussion type interactions to comprehend, integrate and apply illustrations, or to clarify issues
- evaluation type interactions to assess learning and progress, and provide commentary
- examination preparation type interaction sessions

All these types of interaction included a needs assessment by both lecturer and student, regarding the material and structure of each of the sessions. These interactions established a certain structure and content for Social Work practicals within the video conference environment.

Needs analysis interaction

This was a cooperative and collaborative process for the student and lecturer. This self-reflection process took place in the beginning of every session, whether it was a laboratory or a practical session. The lecturer first did a needs analysis assessment with the students to determine their learning needs or wishes for that session. Students also had to answer questions, such as, “What have you learnt so far?” and “Where do you want to go to from here?” The informal and personal nature of the video conferencing sessions fostered a student-centred, actively participating, trusting and sharing environment which made the needs analysis session easier to conduct.

Additional guidance interaction
This type of interaction involved both individuals and groups. The facilitation was done by the supervisor or coordinator and focused on a particular issue (or issues) which needed discussion. These sessions could be requested by both parties, students or lecturers. The interaction was structured along the same principles as those mentioned above, usually around unclear theory and its integration into practice, or around practical problems the students had experienced with their clients/groups. These sessions could also have been around personal issues or problems that prevented the students from completing their work. This interaction type should quite clearly not be confused with therapy or therapeutic sessions; if necessary, lecturers referred students for therapy. Video conferencing guidance was useful for both individuals and groups. It was often used at short notice.

**Discussion interactions**

Discussion type sessions allowed students contact with the lecturer, in order to comprehend issues, integrate theory into practical situations, share experiences with other group members, and to illustrate Social Work theory with practical examples.

Discussions were also scheduled to clarify issues not understood by either students, coordinators or lecturers concerning theoretical issues or practical case study aspects. Video conferencing made the scheduling of such discussions practical, and they could be scheduled timeously at short notice, and conveniently for all parties.

**Evaluation interaction**

This type of interaction allowed the supervisor, student and lecturer to analyse and share experiences gained during the learning process, with the focus on establishing growth and development, and also to plan future learning opportunities. This was a time for self-reflection which took place biannually; in the middle and at the end of the year. Students also had the opportunity to make recommendations to the lecturers on improving the course contents and practical work. The use of video conferencing made it possible to manage the evaluation of Social Work students, to establish personal growth of students, and to have personal contact with students far removed from the campuses.

**Examination preparation interaction**

This was a participatory and cooperative type of interaction to confirm and adjust the focus of the year's work. Students' views on the examination were explored and discussed. They were encouraged to view the examination in terms of what they had discovered about their learning process during the year.

Students were also prepared for the examination. The Social Work lecturer could, for example, ask the students to draw up examination questions in order to see what they regarded as the core issues of what they had learnt. The coordinators in the different regions often emphasised different aspects of the work, and these sessions helped the lecturer to pick up the differences and clarify issues to students before drawing up the examination papers. The lecturer was then in a position to compare questions from different groups with one another to see what the various loci were. The video conferencing sessions made such coordinating sessions between different locations throughout the country quick and easy.

All the above video conference session types contributed to making the overall learning experience a successful one for both the lecturers and the students.

**CONCLUSION**

This research showed that the use of video conferencing changed Social Work practical interactions and provided quality contact. The department also achieved a considerable saving in costs for short contact sessions. This occurred without decreasing vital contact sessions for practicals, guidance, evaluation or motivation. Although learners still had to travel
to different video conference centres, the distances travelled were reduced and students outside South Africa could now also be contacted. (This point is also listed as an advantage by Dallat et al (1992)).

Students were generally appreciative of the contact session interactions that took place. Various researchers have focused on the important aspect of improved interaction and teaching opportunities during video conference sessions. Spirou (1998:984) refers to a few initial aspects which influence the dialogue and interaction, some of which aspects are supported by Dallat et al (1992). The researchers found the following aspects to be important for lecturers to focus on during a presentation, and the fact that these factors influence lecturer-student “apartness and psychological distance” was confirmed during this study:

- minimising the “watching the TV” effect
- reducing technophobia towards the hi-tech or strange environment
- putting the student “in the spotlight” through camera power and forced dialogue (for the Unisa contact session types the group seating arrangement has many advantages)
- applying the “prompting the student ten times” rule as a technique to plan dialogue
- creating a trusting and relaxing environment
- requiring questions to be asked and answered
- using the “student talkers” to create interaction
- ensuring technical effectiveness, especially sound quality
- throwing questions back to students to answer
- reflecting on positive experiences of interactions
- planning and providing supporting materials, especially summaries and visuals
- knowing the characteristics of students and the individual sites
- allowing students to get to know one another and grow in social coherence
- planning seating arrangements to improve eye contact and interaction (large classes benefit by using a group seating arrangement)
- preparing and presenting as a confident facilitator within the learning environment
- striving towards a democratic learning environment; being flexible and sensitive towards the learners’ needs and the presenter’s style
- integrating other media and a variety of strategies to increase interest.

Some of the above aspects enhanced dialogue, while in other cases the dialogue and interaction were hindered. These aspects were all important for the lecturers to consider.

During this study, different types of video conference interactions emerged: those for evaluation, needs analysis, guidance, discussion, and examination preparation of the students. The combination and repetition of these interaction sessions made the contact via video conferencing successful as a medium for focused guidance in Social Work studies. However, interaction has to be planned and deliberately implemented between individual students, student groups at a site, students at different sites, or students and the lecturer; it does not just happen, either in audio or video conferencing (Robson 1996:330; Spirou 1998; Dallat et al 1992).

The lecturers did return to the office after the short on-campus video conference sessions, which meant office absenteeism overall was reduced, and necessary student contact was increased. Lecturers concluded that the time savings were accompanied by other advantages. Lecturers also felt that these time savings could contribute to reducing perceived stress and burnout as experienced by Social Work lecturers at distance-education institutions. Burnout and stress of Social Work lecturers and supervisors and the factors that affect them need, however, more research.

In this study curriculum changes focused on an integrated approach to theory and the components of process education, improving communication and dialogue, good interpersonal relationships, better teamwork, improved critical thinking, ease of use of technology, and appropriate assessment innovative problem solving, honing decision-making
skills, and participatory collaborative learning and needs-based active participation towards an inclusion of moral sensitivity, awareness, understanding and reflection. Students focused on interdependent outcomes and individual learning, empowerment through what was learned, meta-reflection on how the learning was done and on the structure and pace of the learning. The researchers in this study found that the deep learning needs of the students and the needs of the society presented in the case studies guided the changes in the curriculum.

Lecturers effectively used video conferencing strategies to develop the knowledge and skill components required for social work in Africa geared towards an emerging knowledge society.

REFERENCES


ABOUT THE AUTHORS

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