

A COMPARISON OF THE ADVANTAGES AND DISADVANTAGES OF SATELLITE BROADCASTS, VIDEO
CONFERENCING AND DISCUSSION CLASSES IN ODL: A CASE STUDY IN THE COLLEGE OF HUMAN
SCIENCES, UNISA

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1. INTRODUCTION

Modern technology allows lecturers and students in a distance education institution to interact effectively even though individuals are far apart. Video conferencing (VC) and satellite broadcasts (SB) in particular are two types of distance learning technology that can enhance the student's capacity to engage in learning in a variety of ways. Both allow for a centrally-based lecturer to engage with multiple students in one or more decentralised venues. Both require lecturers and students to be in a particular place at a particular time (thus reducing some of the flexibility of distance education study) but costs of travel are curtailed since not everybody has to travel to a central venue. In case of satellite broadcasts it is possible to record the sessions and make the recordings available at the regional centres for students unable to participate at the scheduled time.

2 VENUES

2.1 Videoconferencing

At Unisa the venues for video conferencing (with the number of students the venue can accommodate given in brackets) are as follows:

Pretoria Muckleneuk (7); Pretoria Muckleneuk (25); Pretoria Muckleneuk (10); Pretoria Sunnyside (40); Florida (50); Durban (62); Cape Town/Parow (35); Polokwane (25); Port Elizabeth (25) (although this venue has been out of commission for two years due to an impasse between the central campus and regional office over security arrangements); East London (15); Mafikeng (20); Kimberley (10); Pietermaritzburg (10); Bloemfontein (18); Nelspruit (12); Middelburg (30); New Castle (25); Umtata (25); Benoni (20); Johannesburg (35); Rustenburg (40). Total: 539.

It should, however, be noted that it is extremely difficult to accommodate more than six regional venues during one video conference. The lecturer is able to see the students in the different venues on a screen in the studio. The more venues that are linked to the central venue, the smaller the image of the venues become on the screen. It also takes good organising skills to handle more than 6 venues at a time. This suggests that the facilities are best used for targeted, complementary interventions rather than mainstream, core teaching and that additional measures need to be taken to support students who needed to participate but were unable to at the scheduled times.

2.2 Satellite broadcasts

Venues for satellite broadcasts (with the number of students that can be accommodated given in brackets) are as follows:

Florida (50); Sunnyside (125); Johannesburg (125); Benoni (20); Durban (25); Durban (100); Pietermaritzburg (200); Newcastle (15); Nelspruit (50); Middelburg (20); Bloemfontein (20); Mafikeng (30); Klerksdorp (50); Rustenburg (20); Potchefstroom (20); Kimberley (25); Upington (25); Polokwane (35); East London (20); Port Elizabeth (20); Umtata (25); Cape Town/Parow (40); George (20); Stellenbosch (20); Worcester (12); Windhoek (25). Total: 957.

3 THE RESEARCH PROCESS

CODs were contacted by e-mail or telephone with a request to identify lecturers in their departments who make use of either VC or SB facilities. Individual and focus group interviews were then arranged with a random selection of lecturers identified by their COD. A total number of 21 lecturers were interviewed. Of these, five lecturers (all from the same department) were interviewed with regard to SBs and 16 with regard to VCs.

The following questions were asked:

1. Do you make use of satellite broadcasts or video conferencing?
2. Why did you choose to use the one and not the other?
3. How many times a year/semester do you use the facility?
4. Who initiated the use?
5. What is the service like?
6. What problems did you experience?
7. Did you get any feedback from students with regard to the use of the facility? If "yes", please explain.
8. What is the main purpose of the satellite broadcast/video conference? (E.g. discussion of assignments, examination guidelines, explanation of module content, etc.)
9. How is the use of the satellite broadcasting/video conferencing integrated into the overall learning experience?
10. How is the use of satellite broadcasting/ video conferencing evaluated?
11. What worked/works well?
12. What did not work/works well?
13. Do you hold face-to-face discussion classes? What are the relative advantages/disadvantages of discussion classes over satellite broadcasting or video conferencing?

If necessary, follow-up questions were asked.

With the permission of the participants, the interviews were recorded and digital recordings are available if required.

4 FINDINGS

4.1 Do you make use of satellite broadcasts or video conferencing?

Of the 27 departments in the College of Human sciences 13 make use of video conferencing.). Two departments make use of video conferencing in all the modules that are offered, whereas other departments use this facility in some but not all the modules. Sometimes it is used by as little as two modules offered in the department. Only one department makes use of satellite broadcasts. It

should, however, be noted that this facility is used in all the undergraduate modules and most of the Honours modules offered by the department. 14 departments do not make use of any of the facilities.

Reasons cited for not using the facilities:

- Used video conferencing up to 2008 but discontinued it because of poor attendance or a “no-show”.
- Students are scattered all over the world and can’t be reached by means of VC or SB.
- Prefer to do discussion classes.
- Student numbers are too low.
- Student numbers are too high and therefore the discussion class option is preferred.
- Students live in remote rural areas. Tutors meet students once a month. The type of students in particular programmes (e.g. ABET students) prefer face-to-face contact.
- Prefer face-to-face workshops. These are better options for addressing more practical activities in which lecturers need to respond to a variety of cues. An element of face-to-face interaction is considered necessary for professional development in a field based on inter-personal interaction (e.g. in Social Work).

Many departments still hold discussion classes, mostly because of large numbers of students and because they prefer to have face-to-face contact with students. Lecturers in these departments indicated that discussion classes are still the preferred method of learning facilitation.

4.2 Why did you choose to use the one and not the other?

Before analysing lecturers’ responses to this question, it should be noted that a number of lecturers were not familiar with satellite broadcastings. The concept had to be explained to them before they could answer the question.

Lecturers who make use of video conferencing indicated that they prefer it to SBs for the following reasons:

- Satellite broadcasts allow for a one-way flow of information only as in a traditional teacher-centred lecture, which leaves students passive.
- Video-conferencing allows for active participation and interaction and the building of relationships with students.
- Lecturers prefer a discussion with students. They want to see their students, facilitate question and answer sessions, have students perform practical activities and observe them when doing so.
- In some departments lecturers were not given a choice – the department had decided to use VCs (to replace discussion classes) and they had to comply.
- VC has been around longer. It has been used by some departments as far back as the early 1990s.
- Haven’t had the capacity to get round to SBs.

Lecturers who make use of satellite broadcasts cited the following reasons for their preference:

- Satellite broadcasts can be rebroadcast - even on Saturdays – which implies that students who missed a broadcast because of other responsibilities can still be reached.
- A DVD can be made of the presentation. Students can buy it and watch it repeatedly in their own time.
- Satellite broadcasts are more cost-effective than video conferences and more regional centres - and therefore also more students - can be reached in a single session. Most of the lecturers were very enthusiastic about the satellite broadcasts (Dr Elize Terblanche must be singled out as she is particularly enthusiastic about SBs and has also presented a paper on this topic at an international conference.)
- Discussion classes and VCs are mostly presented in the main regional centres (e.g. Cape Town, Durban, East London and Polokwane) and lecturers felt that this is unfair to students in remote areas. SBs can reach students in all the regional centres.

4.3 How many times a year do you use the facility?

The use of the facilities varies from department to department. Lecturers indicated that the semester system does not allow them to have more than one session per semester. VCs are usually scheduled early in the semester, which means that students haven't had time to go through their work. They are therefore unprepared and can't really take part in the group discussion. VCs can't be scheduled later in the semester, because then students are preparing for examinations.

In year courses the facility is mostly used twice a year.

Lecturers who make use of SBs indicated that the broadcasts are mostly rebroadcast once or twice. They also prefer presentations to be rebroadcast on a Saturday to give students who work a chance to attend as well. Students can also buy a copy of the DVD at R56.00. Regional offices get copies of the DVDs and students who do not have the necessary equipment to watch a DVD at home, or can't afford the DVD, can watch it at the regional office.

Video conferencing allows for a direct link between the central studio and a number of decentralised centres. Although one department indicated that they handle seven regional centres at a time, other departments indicated that the split-screen option does not always work. They prefer a direct link between the central studio and one centre, because according to them the ideal group size is 20 or less due to the active participation required. This is very time-consuming, however, as it implies that the same 'lecture' has to be presented many times in order to reach all the main centres. In some cases discussion classes are held in Pretoria, but the video conferencing facility is used to reach students in Durban and Cape Town. This implies that only students in the main centres are reached and emphasises the concern of lecturers about VCs and discussion classes not being fair to students in remote areas.

The length of the sessions varies. Only one department have VC sessions shorter than one hour (40 minutes). VC sessions mostly last from one hour to six hours. Students get short breaks in between sessions. In some cases one lecturer is responsible for the whole session, but in other cases lecturers take turns to present different sections of a particular module or a different module.

SBs mostly last two to three hours, with a short break in between. Lecturers indicated that three-hour sessions are a bit long and that students tend to get restless and tired. Lecturers also felt drained after a three-hour session.

VC is also used for assessment purposes in some cases (e.g. Linguistics).

4.4 Why did you decide to make use of VCs or SBs?

Especially in the smaller departments discussion classes became too expensive and the department had to look at alternative methods of providing student support and making contact with students.

Some of the lecturers indicated that they got the idea that Unisa had acquired the facilities at great cost and that lecturers were expected to use them.

It appears that the discussion class policy which requires a minimum attendance of 20 students for a particular session has compelled departments to consider alternative ways of making contact with students.

4.5 What problems did you experience?

The most common problems mentioned with regard to video conferencing were the following:

- Video-conferencing facilities are not available in other African countries such as Botswana, Ethiopia and Mauritius (where Unisa has many students). Lecturers overcome this by making use of teleconferencing, but it is regarded as second best.
- There have been occasions when telephone lines have been down at the scheduled time or when connections were broken during the conference. Such interruptions waste time and students get upset.
- Students arrive late and because the equipment is very sensitive, the smallest disruption creates a lot of noise. The equipment is very sensitive and amplifies all noises. It often takes up to 15 minutes for students to settle down.
- Students do not attend sessions – the turn-out at some centres is often very poor and according to one lecturer they “then later complain about the lack of contact”.
- Students are camera shy and tend not to take part in the discussions.

The most common problems experienced with the satellite broadcasts were the following:

- Students do not attend sessions – the turn-out at some centres is often very poor. To overcome this problem lecturers have arranged for SBs to be rebroadcast on Saturdays.
- Satellite broadcasts can reach students in Namibia but not in other African countries.
- It takes time to get used to the camera and to facilitate a session where no learners are present.
- The DVD is not always available to students (the problem apparently lies with Unisa Press).

4.6 Did you get any feedback from students with regard to the use of the facility? If ‘yes’, please explain.

For both satellite and video conferencing the feedback received was informal. In the case of video conferencing the feedback mostly included comments at the end of a session to the effect that students would have liked to continue the session/ were reluctant to leave; emails or postings on *myUnisa* commenting on how useful the session had been were also received.

According to lecturers the feedback from students is mostly positive. However, there were complaints about overcrowding at facilities. In Social Work this resulted in the splitting of groups at the larger centres into smaller groups.

A few students still express a preference for direct face-to-face contact with the responsible lecturer.

4.7 What works well?

Video conferencing

- It is noted that video-conferencing works for small group discussions but requires good facilitation skills in order to encourage full participation. Some lecturers indicated that video-conferencing does not work well for more practical activities such as role plays where it is necessary to be able to pick up on emotional cues etc., but other lecturers contradicted this observation.
- Visuals
- Good planning and preparation. It was suggested that one should book and plan well in advance.
- Informing students at the beginning of the session how the facility works and putting students at ease.
- Having a “monitor/class captain/spokesperson” in the regional centre to organise students.
- Having one person in the department responsible for handling all administrative issues, bookings and sorting out problems.
- Good support in the regional centres. It was suggested that tutors be used to make the students feel at home first.

Satellite broadcasts

- Explaining to students what a satellite broadcast is and how the facility works. This should also be done in tutorial letters with time tables for SBs.
- Regular activity breaks
- Variation, not only in terms of method of presentation but also variation of lecturers who present.
- Good planning and preparation
- Visuals (e.g. Power Point Presentation) with not too much text on the PPP.
- A lively presenter who knows his./her study material very well.
- A panel discussion between a group of lecturers (this takes a lot of preparation, but works extremely well).

4.8 What does not work?

Video conferencing

- Physical constraints have been noted above.
- Long sessions without any breaks are problematic.

Satellite broadcasts

- Power point presentations with too much text and/or a very small letter font.

4.9 Do you make use of face-to-face classes? What are the relative advantages/disadvantages of discussion classes over satellite broadcasts or video conferencing?

Face-to-face discussion classes are still the preferred method of learning facilitation for most lecturers. The perceived advantages and disadvantages of the three delivery modes can be summarised as follows:

| Delivery mode | Advantages | Disadvantages |
|---------------|--|---|
| DC | <ul style="list-style-type: none"> • Direct contact with students (can observe and “read” target group). • More dynamic. • More interactive. • Can continue discussions with individual students after class. • Students can show you what their problem is (e.g. an assignment that has been marked incorrectly). • More personal. Students can identify with/relate to the lecturer. • More students attend discussion classes than VCs or SBs. • Students prefer face-to-face discussion classes. | <ul style="list-style-type: none"> • Are presented only at main regional centres and therefore not all students are reached (unfair). • Time consuming. • Lecturers are out of their offices for a long time. • Expensive. • Once a DC is over it is over. No DVD that students can watch afterwards. • Venues are often overcrowded and facilities inadequate. |
| CV | <ul style="list-style-type: none"> • Cost-effective (not as expensive as discussion classes). • A good, but second best, alternative to discussion classes. • More interactive than satellite | <ul style="list-style-type: none"> • Some students are intimidated by the technology. • Can be very noisy. • Can reach only a few regional centres in one session. • Mostly only the main regional |

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| | broadcasts. | <p>centres are accommodated.</p> <ul style="list-style-type: none"> • Time consuming, because the same lecture has to be presented to different regions. • Turn out not always very good. (Students would rather attend discussion classes.) • Split-screen does not always work and therefore the same discussion class has to be presented several times to reach students in the regional centres. |
| SB | <ul style="list-style-type: none"> • Cost-effective (not as expensive as discussion classes and even cheaper than VC). • Cost-effective for students as they do not need to travel to the main regional centres. • Can reach more students. • Can be rebroadcast. • A DVD of the presentation can be made for students to view at a later stage. • Copies of the previous year's DVDs are given to new staff and are used to train them. | <ul style="list-style-type: none"> • Lecturer cannot see students. • Limited interaction. • Some students are intimidated by the technology. • DVDs are not always available to students (often out of stock). • Turn out not always very good. (Students prefer discussion classes.) |

5 CONCLUSION AND RECOMMENDATION

Although satellite broadcasts and video conferencing have many advantages and are a good substitute for some kinds of discussion classes, most of the lecturers that were interviewed indicated that these facilities are second best and that they would still prefer discussion classes. It, however, seems that financial constraints have forced them to resort to the use of SBs and VCs.

In all three modalities, the potential for interaction can only be realised if the session has been designed in this way from the beginning. The use of any of these strategies simply for the transmission of content – offering potted summaries of the course materials – will only encourage cramming and surface learning. Ideally, the use of any of these approaches needs to be designed into the programme/module delivery with clear pre-, during and post-activities. Strategies need also to be agreed for feedback to students who were unable to participate on the scheduled dates. Core learning resources/experiences MUST be delivered/mediated in ways that reach all the students. Therefore the programme/module design process needs to be informed by the learner profile.

The use of VCs and SBs should form an integral part of the module - it should not be an add-on. This implies that VCs and SBs should be taken into consideration when designing, developing and revising modules.

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