The introduction of cohort-based e-learning in the South African Context: a case study of the South African Theological Seminary (SATS)

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Introduction

SATS is a distance learning seminary with approximately 1500 students in our Bachelor of Theology programme. SATS was amongst the first tertiary institutions to attempt to introduce facilitated, cohort-based e-learning in South Africa. Since beginning with e-learning in 2008, the seminary has developed 30 courses (almost the entire BTh curriculum), facilitated over 60 cohorts (8-20 students each), with some 250 people having completed one or more online courses.

The purpose of this paper is to describe and evaluate the impact of the introduction of e-learning on the seminary's throughput rates.

Background and objectives

After running some experimental groups in 2006, we realised that our environment was not yet ready for this methodology. This was evident in the difficulty we had in sourcing sufficient students to form viable cohorts, because too few had broadband Internet access. Our research during 2007 suggested that the ICT environment in South Africa had developed to the point that a significant minority of our students had the kind of connectivity to make participation in e-learning possible. We spent the latter part of 2007 preparing to launch the new methodology in 2008.

Since the majority of our students are part-time students with professional commitments, a low throughput rate in the BTh programme was a major concern to the seminary. Therefore, the primary objective for introducing e-learning was to improve long-term throughput rates, without compromising academic standards.

Implementation

The implementation process. Being aware of the successes of cohort-based e-learning in several countries, we believed it could also enhance the quality of our distance learning programmes. We received a donation of R392000 from a trust in the United States, which covered the costs of setting up the learner management platform, training our faculty to develop and facilitate e-learning courses, and writing the pilot courses.

We then consulted with Dr Neil Butcher from Neil Butcher and Associates, who advised us to choose cohort-based e-learning over other e-learning pedagogies. On Neil's advice, we set up a Moodle platform. Moodle is an open-source learner management system, which provides a range of tools for facilitating asynchronous e-learning activities. Seven faculty members underwent training to design and facilitate courses in the new format, and we launched eight pilot groups in February 2008.

The teaching and learning design. Students work in cohorts of 8-20 students, with 12-15 being ideal. Each 12-credit course runs over 12 weeks, and is usually divided into approximately six units. In each two-week unit, students must complete a variety of assigned learning tasks, including reading, listening to lectures, writing assignments, discussing issues with other students, working on group projects, or taking review tests. A faculty member tutors the group, devoting five hours each week to guiding the class and interacting with the students. The course design forces the students to (a) interact extensively with one another and (b) complete each unit's activities before the end of the unit.

Challenges. We encountered a number of challenges in implementing e-learning, mostly related to technology. Server failures and internet problems caused some frustrations. While most staff and students found the technology intuitive, some felt underprepared for the new methodology. We had to invest extra effort in staff development. Bandwidth limitations in South Africa still place many restrictions on the kinds of learning activities that can be incorporated in the course design. Many students work on 3G cards with about 500 MB of available bandwidth per month, so it has not been viable to include many audio-visual resources in the courses. Finally, course facilitators have witnessed an increase in the incidences of plagiarism—students doing e-learning seem more likely to plagiarise.

Impact

We are nearing the end of the third year of offering cohort-based e-learning. Some 1500 students are currently registered for the BTh programme. Approximately 15 percent have taken courses by e-learning, and around 10 percent are doing all their BTh courses in this methodology. These numbers align roughly with our expectations, and we expect a steady increase in the percentage of students preferring e-learning as broadband access becomes more cost-efficient.

In spite of the abovementioned challenges, we consider the project to be a resounding success. The most important impact is that students who have adopted e-learning have achieved significantly better throughput rates. For example:

1. Bert Barnes registered with the Seminary in April 2005. By the end of 2007, he had completed 54 credits in 36 months. In the first twelve months after starting on e-learning, Bert completed 120 credits.
2. Peter Adcock registered for his studies in October 2005. He completed 7 subjects in the first 28 months. After enrolling in e-learning, Peter completed 10 courses in the next 12 months.

3. Graham Parker registered with SATS in December 2004. By May 2008, he had completed only 2 courses. In his first year as an e-learning student, Graham completed 6 courses.

These are exceptional examples, but significantly improved throughput as a result of e-learning enrolment is archetypal. Many of the students who have made the transition have achieved an improvement of between 200 and 300 percent. One may wonder whether this is evidence of less rigorous and demanding coursework in the e-learning format. If our goal was to improve throughput at any cost, we would just have made our traditional courses easier and not incurred the expense and demands to starting e-learning. We are convinced that our e-learning courses are *at least as demanding* as our traditional distance courses. How then can we account for this dramatic improvement in throughput?

There appear to be three primary reasons for the improvement. First, the students are having a holistic learning experience which helps to combat the loneliness and discouragement that plague distance education. They are no longer studying alone without a support system. They have formed online communities, and enjoy the interaction and friendship they have with other students. This greatly improves their enjoyment and, consequently, their motivation. Second, the students have much more access to and interaction with the course tutors. Although each tutor is required to devote five hours per week to a class (cohort of 15), the time limit is uncapped with weaker students in mind. In our traditional model, most students' only interaction with tutors was in the form of assessment feedback. Third, the paced nature of e-learning courses has forced students to work steadily and keep to deadlines.

The three reasons just mentioned were confirmed in a recent impact study we conducted with a sample of 30 e-learning students (approximately 20 percent of the regular users). Almost all the participants in the study had taken traditional distance courses with SATS before switching to e-learning, and none of them had done cohort-based e-learning before.

The respondents indicated three primary reasons for attempting e-learning:

50%   the convenience of working online in a structured environment
33%   the desire for regular interactions with tutors and other students
23%   the objective of increasing their throughput rate

Seven respondents (23%) expressed initial reservations about the technological side of e-learning. In total, 85% of the respondents said that none of their reservations materialised. Although the remaining 15% felt that some of their fears actualised, none have abandoned the e-learning methodology as a result.

When asked what their primary reasons were for preferring e-learning to traditional distance learning, they responded as follows:

- 50% frequent interaction with tutors and fellow students
- 31% rapid and substantive feedback on assessment tasks
- 14% the accountability of due dates for each assessment

As concerns the most frustrating aspect of e-learning:

- 38% reported no frustration experienced
- 19% felt that due dates are often difficult to keep (due to family and/or work commitments)
- 10% expressed concern related to sluggish assessment and/or counter-intuitive course-site navigation

When asked whether they would recommend e-learning to a friend, 100% responded affirmatively (and several had already done so). Furthermore, 80% indicated that they would not return to the other methodology, while 20% preferred a combination of both methodologies because it permitted them maximum flexibility.

The introduction of e-learning has had a major impact upon SATS beyond the direct benefits of greater throughput for students doing e-learning. Prior to the introduction of e-learning, SATS operated on a study-at-your-own-pace philosophy. Students were not forced to work according to fixed submission dates. As a result of our experiences with Moodle, we have moved all our course management onto Moodle, introduced optional forums to allow students to contact tutors and classmates, and set fixed dates that force students to complete a 12-credit course in three months. This has resulted in a significant improvement in our throughput rates even for students who are not taking cohort-based e-learning courses.

Moving our traditional-mode courses onto Moodle, and running them with fixed submission dates, has increased not only students' throughput rate (students finish their courses faster), but also students' success rates (a higher percentage of students complete their courses successfully).

Comparing our success rates for students taking e-learning with those for students taking traditional courses in the new Moodle format revealed the following:

- 68% complete and pass courses by distance education
- 82% complete and pass courses by e-learning

Since both of these statistics (68% versus 82%) are based on 12-credit courses offered over a 12-week period on a Moodle platform, the only differentiator is the course format. It shows a significant variance between the two models, with e-learning courses having a 14% higher completion rate.

In summary, then, students doing e-learning have achieved dramatically better throughput and success rates than they did when taking traditional distance learning

courses. As a result of this, SATS revised its support method for traditional courses to harness some of the benefits of the e-learning methodology (i.e. fixed deadlines; online access to lecturers and other students).

Future hopes

The future of e-learning at SATS looks bright. Over the next five years, we hope to transition many more students from traditional distance learning to cohort-based e-learning. Due largely to bandwidth limitations, to date we have used mainly asynchronous methodologies, but we hope in the future to be able to include real-time meetings between lecturers and students (i.e. virtual classroom environments). Similarly, most of the learning activities we have used to date have been text-based, with a few audio materials; as bandwidth restrictions recede, we hope to include more audio-visual content (e.g. video streaming, interactive flash presentations).