

**TEACHING ADVANCEMENT AT
UNIVERSITY (TAU)
FELLOWSHIPS PROGRAMME**

**FRONT PAGE (TEMPLATE) FOR INDIVIDUAL PROJECT
SUMMARY**

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Introduction

The draft White Paper on Transforming Learning and Teaching through Information and Communication Technologies (ICTs) (Government Gazette Notice 1869 of 2004) states that: "The ICT revolution has had an impact on curriculum development and delivery and continues to pose new challenges for education and training systems around the world. These challenges can be summarised into three broad areas, namely:

- participation in the information society;
- impact of ICTs on access, cost effectiveness and quality of education; and
- integration of ICTs into the learning and teaching process"

The advances in ICT have made online learning possible for society at large today. The Discipline of Pharmaceutical Sciences, School of Health Sciences at UKZN has implemented two online Masters programmes (Pharmacy and Health Sciences) and the coordinator of the programmes is the investigator in this evaluation (F Suleman). Evaluation is an important part of programme improvement and accreditation and long-term success. The aim of this evaluation therefore is to examine student experiences of an online Masters programme in Pharmacy and Health Sciences in order to understand if the programme was implemented as intended by the University and the benefits of the programme to the students.

Literature Review:

E-learning is a popular term used to describe any learning that is electronically mediated or facilitated by transactions software. Quality of programme and module design and teaching are of great importance to the success of online education programs, as they are for traditional programs, and module design and teaching methods effectively adapted to the technology are more important than the types of technology used to deliver the programme (Hermans, Tondeur, van Braak, and Valcke, 2008).

Evaluations resulting in programme refinements or changes are critical if quality is to be achieved and maintained. Galbraith, Sisco, and Guglielmino (1997, p. 113) stated, "Evaluation is an essential element in effective programmes for any target group." Scriven (1981) reported that a common use of program evaluation is for accountability purposes. He also identified other uses to include (a) determining programme effectiveness, (b) identifying programme weaknesses to enable administrators or facilitators to improve programme effectiveness, (c) providing evidence of effectiveness to disbelievers, and (d) providing information that can be used for programme reaccreditation.

Although there are many approaches to assessing the effectiveness of e-learning, researchers often assess learning and affective reactions to the e-learning environment (e.g. satisfaction) (Arbaugh, 2001; Piccoli et al., 2001) because they have been identified by Kirkpatrick (1976) as appropriate criterion for assessing training effectiveness. For e-learning initiatives, satisfaction may play a more important role because individuals who are less satisfied with their experiences are less likely to enroll in future e-learning courses (Carswell et al., 2001). Researchers have also looked at factors influencing the success of online learning. The success in online education depends on some factors such as; the active participation of the students, the interaction between the facilitator and the student, (Dursun, 2006; Çalışkan & Gürsul, 2010; Çalışkan, 2002; Aydın 2001), the cooperation among

the students themselves, (Belikuşaki, 2006), the active learning methods used (Atici , 2002) , providing good feedback (Karataş, 2003), making a student focus on a certain subject/task (Balaban,2004), keeping the standards high for the students and preparing the syllabus considering the diversity of students.

Fraser and Dean (1997) suggest that flexibility in teaching and learning can be provided in a number of ways – through the resources made available, through the interaction between learners and through the support provided for learners, and that these variations in teaching approaches can have differential effects on student satisfaction, motivation and engagement. Literature also agrees that because online instruction and learning is still a new intervention in health sciences, research is needed examining the perceived student benefits of online programmes (Seok, et al, 2010).

This research thus questioned how the students perceived the online programmes in terms of the online learning vs face-to-face interactions; system quality and satisfaction with the programme and tried to determine the perceptions and challenges for effective online teaching and learning.

Evaluation approach/ methods

All students of the online masters programmes that registered between 2011 and 2015 were sampled. Online anonymous surveys were administered through an online survey tool, SurveyMonkey (SurveyMonkey.com, Portland, OR). All these students had completed the online coursework component of the programme. A survey tool derived from Ozkan and Koseler (2009) was used. The latter propose a multi-dimensional approach for LMS evaluation via six dimensions: (1) system quality, (2) service quality, (3) content quality, (4) learner perspective, (5) instructor attitudes, and (6) supportive issues. The survey instrument has been tested for content validity, reliability, and criterion-based predictive validity. Approximately 26 questions (most of which are Likert scale responses allowing for quicker response time by participants) were posed to students. Data was downloaded into EXCEL spreadsheets and analysed using descriptive statistical techniques (for this report). Open ended questions were coded and arranged according to themes and presented in a descriptive manner. For the purposes of this report, results relating to demographics, learner perspective, information quality and service quality will be presented.

Ethical considerations:

Gatekeeper request from Registrar to conduct the study was received. The proposal was submitted for expedited ethical review at UKZN (in accordance with the University's policies) and approval has been provided.

Results:

The response rate for the questionnaire was 90.82% (N=98). First year students constituted 53.93% of respondents, and 79.78% of respondents were from the Masters of Pharmacy programme. Majority were females (61.80%) and from the age group 31-45 years (51.69%). While general computer use was reported to be 1-5 hours (57.69%), use of the computer was reported to be 1-3 hours for education purposes (58.97%) and for the learning management system (LMS) (51.69%) respectively. About 78.33% of respondents were satisfied with the LMS overall.

In terms of learners' perspectives of the online programmes, there was a split between those that thought that face to face was better than online learning (39.08% and 28.74%). The rest were neutral on either option. Majority (80.68%) felt that they were self-disciplined

enough to manage their time and activities of online learning. There was a split between those that had prior experience with the LMS and those that did not (44.32% and 50% respectively).

Overall respondents found that content quality was good. The lowest scores were for the questions on interactive course notes (52.27%). This reflects the decision to build multimedia and interactive notes (with video) slowly into the course, module by module, to assess if the students had any bandwidth constraints. In the open ended section, students expressed a desire to see more video and interactive content. The students approved of having clear learning objectives (95.29%) and clear assessment criteria and questions (93.18%). 88.51% felt that the content was of sufficient breadth.

In terms of service quality, 96.43% found the instructor attitudes good to learners and 96.39% found the instructors friendly. There was unanimous agreement (100%) that the instructors were knowledgeable enough about the content of the course. Most (76.10%) preferred to take the course online rather than face to face. In the open ended section, the key theme emerging was that online learning required time management and self-discipline skills in learners (*There is a greater need to be disciplined and allocate time for learning in your schedule – 2013*).

Discussion

The positive results of this evaluation indicate that well organized courses, with clear structure, learning outcomes and assessments that are appropriate to these outcomes can be successful. In addition, the availability of facilitators that are responsive and knowledgeable further enhance satisfaction. However, while this evaluation provides a picture of student experiences, it does not measure how the programme has improved the quality of work, or in fact impacted on work and tasks undertaken by graduates. Nor does the evaluation measure whether graduates have moved to new and better positions within organisations. These are questions for further research.

Conclusion

The research has indicated that students in health sciences that are able to effectively manage their time and are self-disciplined, are likely to enjoy and take online courses. In addition, despite concerns regarding using videos and interactive materials on the University and instructor side, students' responses seem to indicate that they prefer and enjoy these materials in their courses. It would be interesting to see if the split between face to face education and online learning preference would change if these materials were provided, and if the University provided a brief commentary from past experiences of students to guide new students in terms of time management and task allocation.

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