

Increasing the use of e-resources in mainstream teaching and learning

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Abstract

Making technology relevant and appropriate to teacher needs and skill levels is the key to achieving an increase in the uptake of e-resources in mainstream delivery. This article outlines my Flexible Learning Leader (FLL) project, which was to incorporate online and e-resources into mainstream delivery at the Sunraysia Institute of Technical and Further Education (TAFE), based in the remote north-west Victorian city of Mildura, Australia. The findings of my research and consultation with teachers are described and outcomes achieved and future opportunities for my organisation, are outlined.

Introduction

Making technology relevant and appropriate to teacher needs and skill levels is the key to achieving an increase in the uptake of e-resources in mainstream delivery.

The aim of my Flexible Learning Leader project was to incorporate online and e-resources into mainstream delivery at the Sunraysia Institute of TAFE, based in the remote north-west Victorian city of Mildura.

I came to this goal with broad knowledge of the advantages and disadvantages of online and e-resources, having been involved as Technical Consultant and Assistant Manager of the Victorian-government funded Sunraysia Mallee Flexible Learning Network (hereafter referred to as the Network).

The Network comprised a number of Registered Training Organisations (RTOs) who joined as provider partners, as well as some valuable community and industry organisations that provided support as associate partners. A focus of the Network was providing professional development for partners' staff and support for them to deliver online through the TAFE Virtual Campus (TAFEVC). This proved extremely successful with two Group Training Organisations delivering Occupational Health and Safety units online to secondary school students.

The Network also took the lead role in a range of community capacity building projects, initiating an email Crime Alert (in partnership with Mildura Police) and coordinating the Sunraysia My Connected Community (mc2) project: a state government funded program designed to encourage computer skills and the uptake of technology among disadvantaged sectors of the community.

Both were closely aligned to the Sunraysia Mallee Flexible Learning Network's objectives of encouraging people to use technology in ways relevant to their lives, thereby preparing them in some small measure for the 'knowledge era'. Basic training provided for some participants, who had little or no computer skills, has been highly

successful in demystifying technology and demonstrating that training (and lifelong learning) is suited to all people and all skill levels.

Through my work with the Network, it became apparent that while online and flexible delivery was well-suited to the needs of students and teachers, particularly in remote rural areas, there was resistance among TAFE teachers in particular. Many felt they had neither the time, confidence or information and communication technology (ICT) skills to successfully integrate e-resources into their delivery.

Interestingly, my initial research revealed many teachers were already embracing flexible delivery, albeit unwittingly, by using a combination of learning resources to cater for differing student needs. This included the use of websites, Toolboxes, compact disks (CDs) and email in conjunction with print-based resources.

However, they thought of 'online' and 'flexible' delivery as more technical terms involving the delivery of entire units or courses online. There were some negative associations with online learning among Sunraysia staff, due to previous experiences where the use of e-resources was effectively imposed upon them, without adequate support, training or identification of student needs.

As a result of the previously unreliable TAFEVC Version 1 platform, inadequate teacher professional development and, at times, irrelevant learning materials, online delivery had been a disaster that some teachers never wanted to repeat. Recognising that many teachers lacked an acceptable level of ICT skills, the Victorian Government implemented the Notebook Computer initiative where teachers were given a Notebook upon signing a contract to undertake approved professional development.

In addition, I developed a local definition of online learning to include:

- courses that students access from TAFEVC or any other online delivery platform such as Author, NetG or Tutor
- resources that students access via Sunraysia TAFE servers or networked drives
- time spent on the World Wide Web (WWW) for research or websites that students are directed to as part of their learning
- interactive CD ROMs that students access as part of their learning
- assignment submission or communication via email or delivery platform.

The local definition closely reflects the strategies of the Institute Information Communication Strategic Plan 2002-04.

Teachers were already adopting innovative customised delivery modes to meet student needs, but did not recognise this as flexible delivery.

My FLL project aimed to increase the number of Student Contact Hours (SCHs) delivered using online resources as per the local definition. Strategies were put in place to increase the use of online/e-resources to an acceptable level. The Sunraysia Mallee Flexible Learning Network investigated the low uptake of online learning and

consulted with teachers to identify opportunities for improvement and professional development appropriate to their differing skill levels.

The consultation process, which involved a broad cross-section of Sunraysia staff, revealed teaching departments that belong to state-based validation and moderation groups. For example, the Plumbing Department participates and contributes to the Computer Delivery Quality Assurance Committee (CDQAC). Plumbing departments across the state meet four times a year to validate and moderate. Each TAFE represented on the CDQAC is responsible for developing and maintaining resources (predominantly print-based) and assessments (tutor Q Bank) as the proven format.

The CDQAC makes recommendations to the Plumbing Education Training Committee (PETC) and is reluctant to change from their tried and tested format for resource development. The flow-on is for teachers to use PETC approved resources and assessments in delivery. The CDQAC has, however, recognised the need to provide learning resources for students in remote locations and is investigating the feasibility of using electronic resources.

My research in the area of online resources revealed teachers want options that allow them to use electronic resources suited to their individual needs and the needs of their learners. The focus of online resources being delivered solely via TAFEVC has effectively hindered the use of electronic resources in mainstream delivery because teachers, in the past, did not find the TAFEVC platform or available resources user-friendly.

The focus of my study was to collate e-delivery models being used successfully by isolated rural RTOs. I visited three rural TAFEs: C.Y. O'Connor College of TAFE, in Northam Western Australia, Centralian College of TAFE, Alice Springs, and Goulburn Ovens Institute of TAFE. I also visited Northern Melbourne Institute of TAFE (NMIT) - one of the largest providers of online delivery in Victoria.

These rural RTOs used electronic resources to some degree in on-campus mainstream delivery. Web Course Tools (WebCT) and other online delivery platforms housed a small percentage of electronic resources. My research found teachers from isolated rural RTOs were reluctant to use electronic resources due to:

- lack of appropriate infrastructure i.e. poor or intermittent power supply and internet service
- students being unable to access appropriate hardware and equipment
- excessive download times
- low student literacy and numeracy skills
- unavailability of appropriate resources
- teachers being unwilling to move from tried and tested print-based resources
- the ease of using print-based resources with minimal reliance on ICT and associated issues.

Teachers were also wary of embracing a new learning technology that they had little or no experience with. Other issues that arose included concerns about ICT skill levels

required, the ICT skill levels required by students, teachers' ability to use online delivery platforms, content development requirements in terms of download times and content customisation and maintenance.

In summary then, my extensive research and consultation with teachers and resulted in the following findings:

- teachers were not embracing e-delivery because of low ICT skills among both teachers and students and other technical issues, such as slow download times and unreliable internet service
- teachers were affected by previous negative experiences with e-delivery because resources and delivery platforms were not user-friendly or relevant to students.

As a result of my research, a document titled 'E-delivery at a Glance' was produced to provide teachers with some guidance in the first instance. The guide outlines the ICT skills required by teachers and students and the advantages and disadvantages of different e-delivery, as well as hardware and software requirements.

These models range from print-based resources to full online delivery via a platform such as TAFEVC. The document is dynamic and not intended to be definitive due to the evolving nature of ICT as a learning technology.

During the period of the FLL project, the use of online and electronic resources in delivery at Sunraysia TAFE increased by 11 percent (from the equivalent of 3% of the Institute profile to 14%).

Sunraysia Institute of TAFE benefited directly through the implementation of practical solutions for e-delivery. Departments are benefiting from the increased use of ICT and are taking ownership of electronic resource development and delivery.

Personally, the Flexible Learning Leadership program has provided me with invaluable professional development opportunities particularly in the areas of leadership, change management and public speaking, including the highly-acclaimed Leadership Development Program, at the Mt Eliza Business School, and a Public Speaking program at the Macquarie Graduate School of Management. Beyond 2003 I will continue my involvement in Learnscope projects and mentor teachers in the development and delivery of e-resources.

I believe the state and national VET systems benefit from the FLL program through the networking and exchange of information, formally and informally, through the FLL bulletin board, journal postings, site visits and the NET*Working conferences.

Through the Sunraysia Mallee Flexible Learning Network, I have had many opportunities to communicate the results of my FLL research and findings, via the reference group, TAFE Educational Standards Board, the Network newsletter, Heads of Centre meetings, internal staff forums and the internal Sunraysia TAFE newsletter.

The following outcomes have been achieved:

- a local (Sunraysia TAFE) definition of online learning was developed
- a 'ready reckoner' (E-delivery at a Glance) resource developer to help teachers decide on the best use of flexible and electronic resources, and
- an 11% increase in the use of online and electronic resources in delivery at Sunraysia TAFE .

Many future opportunities exist for e-resources development and delivery. Logical achievable opportunities should be embraced but not overcome by ambition. I consider the key elements for progressing ICT in the future are:

- consolidate the current status
- continue consultation with teachers to understand their needs and the needs of learners
- progress teachers through e-delivery models where and when appropriate
- continue enabling strategies that assist teachers in the development and delivery of e-resources.