

Vocational training for veterinary nurses

E-assessment case study

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Background

Assessment that is judged to be valid, reliable, fair and flexible is a pillar of the Australian vocational education and training (VET) system. The Australian Quality Training Framework 2007 (AQTF 2007)¹ is the set of standards which assures nationally consistent, high quality training and assessment services in VET.

The Australian Flexible Learning Framework ([Framework](http://flexiblelearning.net.au))² commissioned research to examine and promote a greater understanding of e-assessment and the AQTF 2007 among VET auditors and practitioners. This research involved 48 targeted interviews with respected auditors, quality managers and practitioners, to build a picture of the key issues around how practitioners are using e-assessment and the auditing of current e-learning assessment practices in public and private registered training organisations (RTOs). The final research report – *E-assessment and the AQTF: Bridging the divide between practitioners and auditors* – is available at: <http://flexiblelearning.net.au/research>

To support these findings, three case studies of e-learning assessment practices in the VET system were developed.

Introduction

Brisbane North Institute of TAFE (BNIT) is one of the largest institutes of its kind in Queensland. BNIT has five campuses and numerous delivery points servicing over 30,000 learners across Brisbane's northside and throughout the wider South East Queensland area as well as external learners throughout Queensland.

BNIT is continuing to meet the evolving needs of its staff and learners, and the introduction of the My.TAFE online learning environment is a key part of this. My.TAFE allows enrolled learners to participate in their courses and access teaching material at any time and any place. My.TAFE is also the learning management system (LMS) used by BNIT teachers to manage and deliver learning content to support classroom, blended and online learning.

One of the numerous qualifications offered by BNIT is RUV40404, *Certificate IV in Veterinary Nursing*. This program has a small animal focus, and is the industry qualification for persons operating as veterinary nurses within veterinary clinics. A qualified veterinary nurse performs a wide range of veterinary support and animal care operations that may include conduct of the total clinic operation; the implementation of animal housing and kennel organisation; the supervision of other clinic employees; provision of support to the veterinarian for a wide range of medical and surgical procedures; and patient monitoring in both the kennel environment and during surgical or medical procedures.

Enrolment numbers in the *Certificate IV in Veterinary Nursing* at BNIT have increased exponentially over the last few years. The job of delivering and assessing the Certificate to over 300 students throughout Queensland is managed by a relatively small teaching team. The team uses ICT to facilitate delivery and assessment, and has been willing to continue to develop the program over time. The

¹ <http://www.training.com.au/aqtf2007/>

² The Framework is the national training system's e-learning strategy: <http://flexiblelearning.net.au>

program has evolved from being delivered face-to-face with traditional assessment, to increasingly include e-learning, blended delivery, and online forms of assessment.

This case study describes the continuing journey at BNIT to increase its online learning focus within Veterinary Nursing training. The Veterinary Nursing project team have experienced a paradigm shift around how to best use new technologies to deliver training and associated assessment. Significantly, this change is now being linked to improvements in the overall learning experience of learners in Veterinary Nursing qualifications.

Drivers for change

In late 2006, BNIT strengthened their commitment to blended and distributed delivery using newly available ICT. Several policy documents highlighted the need for more flexible approaches to training made possible using digital pedagogy and ICT. The importance of more accelerated and flexible pathways were also emphasised in the Australian Government document, *Skilling Australia*³.

The Veterinary Nursing team began to transfer its paper-based training program to the My.TAFE LMS. The Veterinary Nursing team reported that the relationship between technology, pedagogy and content knowledge was not initially considered when they began “putting everything online”. However, the need to manage the relationship between these issues was critical to enhance learners’ learning experiences.

The ultimate goal of the Veterinary Nursing team was to provide a personal, positive and enjoyable learning experience, and to encourage the gathering and sharing of knowledge and flexible learning and assessment. However, these objectives had to be realised in the context of resource limitations, and while ensuring that as many learners as possible completed their qualifications.

Putting the course online meant that learners (who might begin the course at any time of the year) had access to the latest and most up-to-date learning materials, as they were only associated with competencies when they were ready to undertake them. Under the previous paper based model, trainees could be working with learning materials that were up to two years out of date.

Moving to e-assessment

Traditionally, assessing critical aspects of knowledge involved a combination of paper based exams, assignments and workbooks. Examinations were posted to a nominated supervisor who was usually an employer. They agreed to supervise the examination and return the examination papers upon completion to the RTO.

However, with learners distributed across Queensland, this process was lengthy and time consuming, with negative flow on effects for learners. In some locations, it could take 10 days for an examination to reach the supervisor then another 10 days to be returned to the RTO for marking – thus limiting the amount of time a learner had to complete the study. Marking the examination and returning feedback to learners by post added another two to three weeks to the process. In total, a learner’s semester was reduced from 20 to 13 weeks, which was not enough time for study.

Security was also an issue. On occasion, hard copy examination papers were left lying around the workplace or were photocopied for other learners to see. When two

³See <http://www.mskills.com.au>

learners from the one workplace were completing the same competency, copying occasionally occurred. The use of examination sites and paid supervisors were never accepted as an option due to reluctance to pay for supervisors or for travel to examination sites. Many of the learners were working as well as undertaking study, and their employers would not release them to attend examinations.

Advantages of e-assessment

- Using an LMS, paper-based exams were converted into quizzes which could be randomised, so learners would not receive exactly the same questions.
- Teachers reviewed each quiz and provided almost immediate feedback.
- Learners agreed to the e-assessment examination conditions before commencing the quizzes.
- Cheating was more difficult as the quizzes were timed, so there was not enough time for learners to source answers on the spot..
- E-examinations could be undertaken when the learner felt they were ready, and could be completed in the learners' own homes where they were fewer interruptions than at work.

However, even when instructions are provided, some learners do not have the technical ability to create a Word document and attach it to the LMS .Following the introduction of the online facility, the Veterinary Nursing team still received some hand written work. Also, teachers were required to invest considerable time and effort to master the LSM and the various forms of e-assessment.

The Veterinary Nursing team introduced discussions and blogs for the higher level courses. Previously, peer networking did not occur in non face-to-face delivery, so this was an attempt by the teaching team to resolve the need for greater connectivity. Again, some learners struggled with this level of technology.

Videoconferencing was used to provide teachers with some contact with each other. The Veterinary Nursing team are currently experimenting with a web conferencing tool, and with using an online text chat tool with learners. However, the online chat was poorly subscribed and abandoned as a result.

Lessons learned

The Veterinary Nursing teaching team report that unfortunately, the implementation of the online Veterinary Nursing course began with a focus on technological toys, rather than starting with the learning needs of the learners.

To address this, the team adopted Laurillard's Conversational Framework ⁴. This framework promotes the teacher as action researcher, allowing teachers to better achieve the complex integration required of technological, pedagogical and content knowledge. In this framework, ICT became just an added dimension of complexity to teaching.

Turning to training and assessment issues, the Veterinary Nursing team realised that the group work or collaboration that they were using in the face-to-face classroom would be more challenging in the online environment. Online collaborative tools such

⁴Laurillard, D. (2008). The teacher as action researcher: using technology to capture pedagogic form. *Studies in Higher Education*, 33(2), p. 139-154.

as discussion forums provided one platform for learners to actively engage in such collaboration. Another concern was that learners receiving on-line tuition report poorer experiences than those receiving face-to-face tuition.

The Veterinary Nursing team explored options for training teaching staff in how to communicate online. Also the group were aware of evidence that some learners have a psychological block in responding to new technology. Their current Veterinary Nursing learners were described as 'digital natives', and many did not have ready access to quality computers and fast broadband. As Veterinary Nursing is not a highly remunerated profession, the cost to learners of purchasing the technology was also a concern.

Given these factors, the teaching team recognised the need to support learners as the new online program required more independent and self-directed study. Support was provided through online groups and collaboration, whereas previously this was provided by workshops and videoconferences.

The Veterinary Nursing team also identified issues around their professional development. Because this innovative program was started with a misguided focus on technological toys, there was a need for some reprogramming around what the teaching team thought should be made available online. Figure 1 presents a mind map of the major issues and their relationships with each other that were considered as part of this re-thinking.

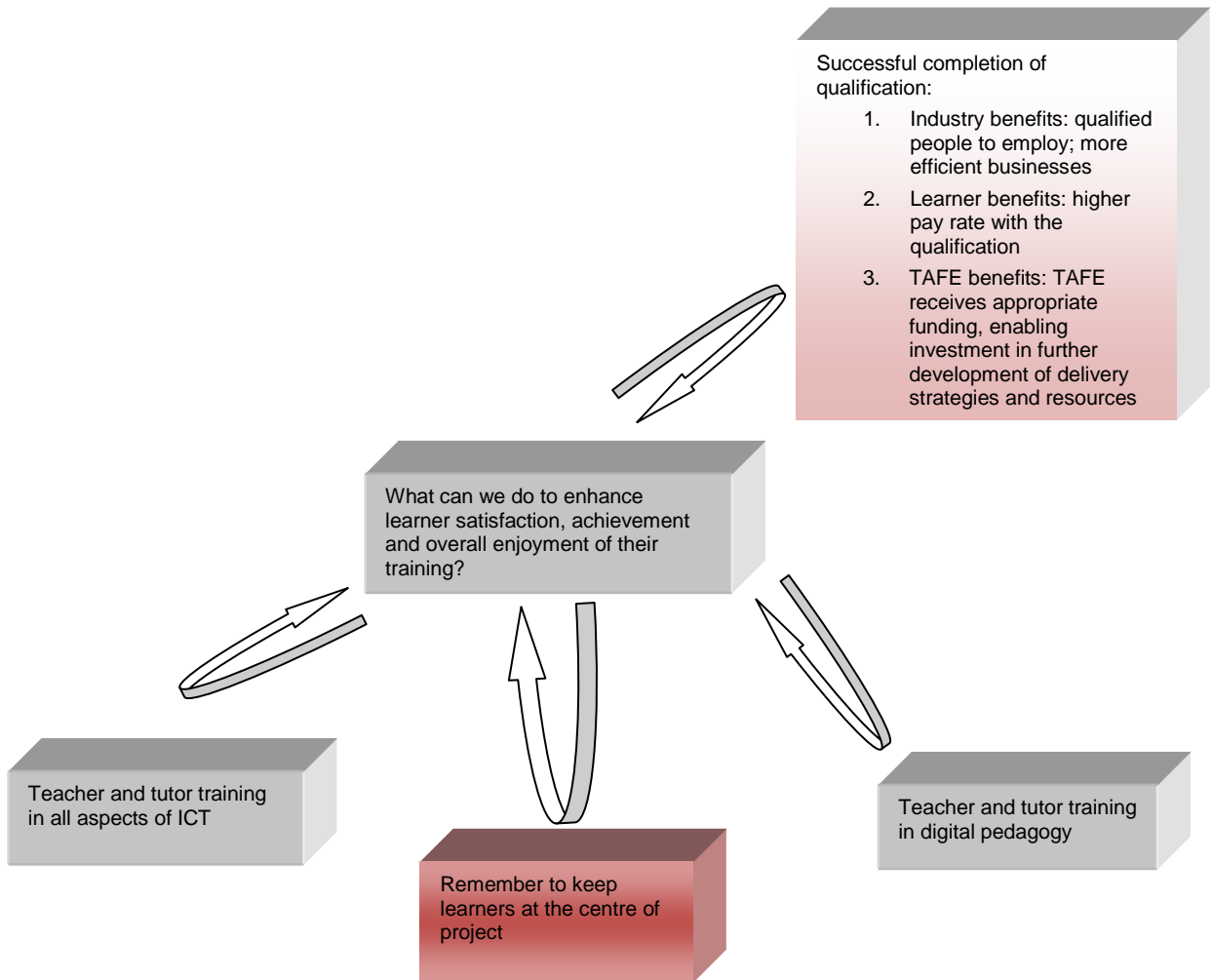


Figure 1: Mind map used to explore factors impacting positive training experience

As the teaching team expected, learners needed assistance and preparation before embarking on an online course for the first time. Despite the Veterinary Nursing teaching team developing an online orientation program, less than five percent of learners attended this training. Many learners still do not see the need for an orientation program. This issue remains a challenge for the team, although it is anticipated the enhancement of web conferencing facilities in My.TAFE will enable increased learner participation.

Teachers are also developing due to their willingness to accept that they will make mistakes, learn from them and to move on. These lessons are promoting better efforts at providing more collaboration and a better sense of community online.

The tools within the LMS system are also better understood. For example, “Discussion” is a tool in My.Tafe and there is a reasonable amount of on-line help with in this software program. Also My.Tafe enables the designer to work in a development shell. Figure 2 demonstrates the ease with which one team member was able to create a couple of gradable discussion topics.

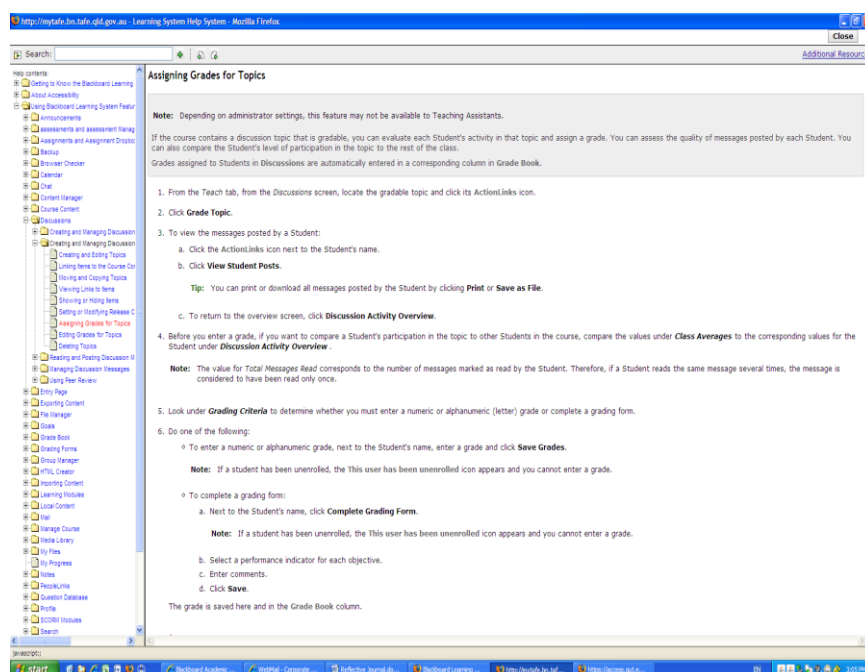


Figure 2: On-board help for grading discussions

The teaching team reported that provision for collaboration is still largely missing from the BNIT Veterinary Nursing online course. This is partly because of a lack of technical skills in terms of how to use these facilities. There is also still a lack of pedagogical knowledge in the teaching team. The leading teachers in the Animal Science team have accepted the need to further promote the need for professional development to other members of the teaching team (eg tutors). This development will include not only the 'mechanics' of using My.TAFE, but also in learning more about digital pedagogy. Unfortunately for the teaching team, it was felt that the TAA40104 *Certificate IV in Training and Assessment* does not assist them here as it does not do justice to the area of digital pedagogy.

There are specific lessons around moving to an online assessment environment, and away from more traditional forms of assessment. The Veterinary Nursing team are trying different approaches to try to resolve these issues. Their biggest hurdle is that some learners do not read materials sent to them. As they do not attend classes on campus, the teaching team cannot talk to them face-to-face, so to get learners started they have to rely on paper based instructions. Videoconference orientations are used, but many learners do not attend or a suitable site is not available. However, this orientation sessions are recorded.

In terms of e-assessment, some learners reported that they did not like online quizzes. The Veterinary Nursing team think there is a lack of confidence in learners' technical abilities. Also there are technical issues and students have computers freeze during an examination. This experience is very stressful for students, and while teachers are available, more support for students when doing such examinations is being explored. There is an 1800 number but more support by the institute is required.

The transition to these new forms of e-assessment have created some issues around audit. A point of debate is that auditors argue that online quizzes used to assess critical aspects of knowledge should require a 100% score, otherwise the questions students get wrong are not necessary. On the other hand, the BNIT Veterinary Nursing team propose that there needs to be some allowance for human error due to misinterpretation of wording or through choosing the wrong response due to examination anxiety. The teaching team usually insists on 80% as a demonstration of

sufficient knowledge. They also note that a Certificate II student is still fully under supervision, and they have still much to learn.

The teaching team gain third party reports on essential skills often from the employers who are highly skilled professional veterinarians. However, teachers make the judgement of competence, not the workplace supervisor. A lot of paper is still filed for auditors, but the teaching team are challenging this action. The LMS courses are archived every semester, and if an auditor wants to see materials, they can be retrieved. Again the teaching team believes that the technical limitations of their students also limits their audit compliance. For example, there is an assessment coversheet with every assignment submitted and there is an electronic version for online submissions. However, not all students seem to cope with the electronic cutting and pasteing that is required.

For more information

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