Analysis in Educational Design

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Introduction:

The need for careful analysis of all factors involved before embarking on any educational design project has been pointed out by many authors (Rouda and Kusy, n.d.), and yet we could wonder why it would need to be. After all, no other type of designer would miss out such a vital step. Perhaps it points to a touch of arrogance on the part of educators (myself included) – we know what learners need, we know what they need to learn, and we know best how to impart these pearls of wisdom! Then again, our administrators may not always provide the resources for a needs analysis. Perhaps *they* know what's best for the learner. If, however, we wish to go further than a mechanistic doling-out of information, we need to acknowledge that the learner herself knows a great deal about her own learning needs, the context of her learning, and how she learns best. However, Wilson (1997) warns that analysis, particularly of content and task, should not drive instructional design at the detailed level. Instead, he advocates a more holistic approach "integrally connected to the context and the surrounding culture." (p. 10). This resonates with my experience of distance veterinary nursing programmes and their workplace context.

The learner:

Veterinary nurses are, almost without exception, women. Perhaps this suggests that we who are involved with their education are practising "gynaegogy" rather than "androgogy"? They are dedicated, hard-working generalists who are poorly rewarded considering the responsibility expected of them. The proposed course is particularly aimed at those already employed in veterinary clinics, typically mature with family responsibilities and unable to attend a fulltime programme. Some of the learner characteristics outlined by Campbell (1999) are apparent to me from past experience – the self concept is often that of a practical person rather than an academic; prior experience varies but can be extensive; and there is a readiness for and a positive orientation to learning. However there is also, sometimes, an apprehension stemming from past schooling or the length of time since study was last undertaken. My impression is that the most common learning style (Kolb 1984) is that of concrete experience combined with reflective observation. But here I have been committing the very crime I spoke of earlier – assuming that I know the learner and her needs. A survey would appear to be indicated, and this could readily be done on email as most veterinary clinics in New Zealand are online.

The context:

Most NZ veterinary clinics are small businesses with 1 to 4 nursing staff. Veterinarians are supportive of nurse education, and would assist in workplace-based training as long as their practice was not greatly disrupted. In the past, such training has occurred within the framework of tertiary institutions, but these have not been able fully to provide meaningful, authentic contexts for learning as in "case-based problems…situated in the real world with all of its uncertainty and complexity" (Mergel 1998, p.18).

I propose to involve workplaces much more, and I suspect that the response will be variable. Again, an email survey would be helpful, and could include questions on the possibility of a nominated supervisor at the clinic, the time available for training opportunities, and the possibility of release time for the student to attend face-to-face sessions. Some veterinarians might also be interested in training as registered assessors. I would also need information on technology available to veterinary nurses.

Learner needs:

Arising from the above, needs for particular kinds of instructional techniques will present themselves. Bridging materials, including computer skills, may be needed to plug gaps. Technological constraints will need to be taken into account, including the availability of broadband connections in NZ. Traditional enrolment in tertiary institutions includes fees for health services, library access, student associations, learning support and other services aimed at students who are on campus and usually straight out of secondary school. These are poorly used by distance students and rarely needed, and it may be that an enrolment more tailored to the needs of flexible learners can be developed.

The social context of distance learning can be one of perceived loneliness. I would like to reduce the "distance" as much as possible by utilising peer tutors both online and as visiting mentors. Wilson (1997) points out that experts (in this case, veterinarians) are not always the best tutors as they have moved into the realm of unconscious competence – that is, their expertise may not be readily accessible for sharing with others. Qualified veterinary nurses would be more valuable in this mentorship role, and the use of threaded discussion to connect students with mentors and with each other has already proven its worth when students apply understanding in a public forum, integrating and constructing their own meanings (Gardner,1999).

Instructional goals and learning outcomes:

As the proposed course is part of a national qualification, there are already existing constraints as to content and assessment. However, the performance criteria used are based on extensive consultation with the veterinary profession and are continually reviewed; accordingly, the overall programme certainly reflects the employer's needs. This should be regarded as an absolute minimum; veterinary nursing educators have an additional agenda of improving the status of veterinary nurses.

The familiar learning outcomes for the proposed module will be revisited in the light of learning in the workplace. For instance, one of the most obvious resources available for free in the veterinary clinic is a constant procession of sick animals – not usually a part of most tertiary institutions' campus life! Case-based study and real emergencies are a valuable part of veterinary nurses' learning already, and harnessing these opportunities in a more formal way, and sharing them with other students as part of their learning, will help to meet the educational outcomes.

The design of the materials and learning experiences employed will be team-based, as a small team of designer, SME and multimedia producer already exists. It will be documented, as

suggested by Inglis (2003) by means of a conceptual map approach, with ongoing evaluation and revision.

References:

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