

Challenges in online tertiary education delivery modes for veterinary nurse educators



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Introduction

The goal of tertiary education is to authentically prepare learners for their careers and to provide the necessary skills and knowledge in accordance with industry requirements (Nieves et al., 2019). Some online delivery modes are better suited for theoretical learning while others are more appropriate for the development of practical skills. However, in a field such as veterinary nursing, the diverse range of industry requirements, including hands-on practice of interpersonal and clinical skills as well as academic knowledge, can make online delivery challenging. Since there are very few published articles focusing on Vet Nursing Education (VNE). A review of current literature was conducted to extrapolate pertinent information encompassing skills-based tertiary education. The application of two pedagogies— Universal Design for Learning (UDL) and Culturally Responsive Teaching (CRT)— in fields in which theoretical knowledge needs to be applied to practical scenarios was analysed for their outcomes from participant feedback and learner results. With the goal to aid in pinpointing key areas of challenges from current learning aspects for VNE.

Universal Design for Learning (UDL)

UDL is an educational framework based on research that aims to foster learning environments that are accessible and inclusive. Students are diverse and no two learners are the same. At the core of UDL, education must provide multiple means of engagement, representation, action, and expression (Galkiene & Monkeviciene, 2021). These can then be expanded into strategies to fit individualistic approaches.

Culturally Responsive Teaching (CRT)

CRT aims to recognise the diversity amongst cultures, fostering a welcoming environment to which cultures can flourish rather than mellow out. Motivational goals include inclusion, curiosity, building meaningful relationships, and critical reflection (Hargraves, 2022). By highlighting and sustaining true cultural experiences away from social constructs can improve student's potential and success regardless of their socio-economic background.

Methodology

In August 2025 a systematic literature review was conducted using a key word search on Google Scholar. Target words included “online delivery”, “tertiary education”, “universal design for learning”, and “culturally responsive teaching” were used. Four peer-reviewed publications were selected by their relatability to the topic, credibility, and similarity to VNE. Pertinent data were collected and summarised to form the results table.

Results

Reference	Study brief	Issues identified	Theoretical framework	Challenges to consider
(Nieves et al., 2019)	An online course is designed in alignment with UDL principles.	Online deliveries can feel exclusive and relies on varying factors to be accessible.	UDL	Technology faults that cannot be fixed in a timely manner, the student's self motivation skills, online delivery also take time to set up, adjust, and develop in order to work smoothly and fully encapsulate the possibilities.
(Thibodeau, 2019)	The author specifically selects the UDL in the usage of videos in online delivery modes, then applies it to a case study.	The approach to UDL in online delivery modes can be too broad with no specific considerations on how to increase inclusivity.	UDL	Setting up applications to fit with the learning outcomes takes trial and error and time. Each component of the online delivery mode needs to be tested for usability and UDL principles otherwise can have opposite effect of inaccessibility.
(Adams et al., 2022)	A critical analysis of indigenous students studying healthcare with a global perspective.	Differences in cultural socio-political imbalances need to be accepted and recognised as a factor in exclusive learning.	CRT	Online learning and AI can be difficult to gain a sense of community. The course needs to be created by educators without deep-seated judgement or bias. Content needs to align with standards as well as cater to students.
(Heitner & Jennings, 2016)	Pilot study to experiment on quantitative measurements of how culturally responsive the students perceived an online course to be.	Stakeholders have different perceptions on how well courses are delivered and received and there are no qualitative ways to measure success.	CRT	Gaining the data and successfully implementing theoretical pedagogy knowledge into online courses. Using a larger sample size with global and varying culturally different groups.

Discussion

The finding for literature suggest there cannot be one single pedagogy used in the teaching of veterinary nurses. Tertiary veterinary nursing education encompass academic teaching and practical skills that although can be learned through online delivery modes, need to be refined through real life clinical experience. There are vast selections of online delivery modes and applications and not are created equal (Adam et al., 2022))to target veterinary nursing education. From the resources, there has been benefits and challenges, that outweigh the negatives. The future of vet nursing programmes can be both universal and culturally inclusive.

Further research

To better understand the pedagogies and their effects on tertiary learners, more pedagogies and cross-sectionals need to be explored. Data on longer online courses would offer insight to long term effects of UDL and CRT. Different aspects of online learning such as assessments, interactive activities, and personalisation may also be factors that determine education success.

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