

Series: Vocational Pedagogy

Article 2: The Complexities of Occupational Teaching on the TVET programmes

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FE News. <https://www.fenews.co.uk/featured-article/43968-the-complexities-of-occupational-teaching-on-tvet-programmes>. Accessed @ 18 Mar. 2020.

Introduction

This second article focuses on technical and vocational education and training courses, and it is structured according to the conceptual framework (Loo, 2018) in the first article. The next two sections are on knowledge acquisition and application with a summary at the end.

Knowledge acquisition

OP1, a gas servicing-engineer teacher in an FE college, discusses the relevance of disciplinary knowledge in his teaching of Level 3 National Vocational Qualification (NVQ) in gas servicing. He refers to knowledge of physics, mathematics and chemistry not as knowledge forms in the related disciplinary fields of Level 3, but as bits of knowledge that have relevance to his occupational area.

The selected forms of disciplinary know-how are modified (content recontextualization) to assist the occupational practitioner in engaging with his/her practice or the teacher to use to teach his/her learners. This activity involves the selection, relocation and refocusing of the relevant aspects of the related disciplinary knowhow. For example, in the equine studies, as discussed by OP3, the related disciplinary know-how of the 'Riding and Training Horses' specification involved the development of the students' equitation skills. It also includes understanding so that the learner may work with horses from the ground, on the flat and over fences while maintaining a safe and balanced position.

Occupational know-how is also required in the content recontextualization process. OP1 referred to real-life experiences in relating his occupational experiences to his practices and teaching. This experience includes teaching safety procedures. OP3 viewed practical knowledge in his equine area as part of his occupational knowledge. He gave the example of practical knowledge in the old days where a rider like Harvey Smith would "get on the horse and get on with it". He mentioned theoretical knowledge relating to showjumping and dressage and the theories of a horse getting in and out of the box. OP3 acknowledged the lack of expertise in this area and how the import of technology could assist in research in this area, such as a rider's body alignment with the horse. The above forms of know-how include explicit and tacit varieties.

Knowledge applications

“I know what they need to know to be safe and for others” espoused by OP1, the participant who specialised in gas servicing. He requires the disciplinary knowledge of physics, mathematics and chemistry to make it appropriate to his occupation (as discussed earlier) via the Content Recontextualization process. For him to make it safe for householders when he worked in the sector, he had to apply this knowledge via the Occupational Recontextualization process. This stage involves not only the occupational know-how but also the ‘work knowledge’ such as the organisation’s systems, protocols and ethos.

From the ‘knowledgeable practice’ concept (Evans, 2016), the approach to a specific show jump fence, the showjumper develops a deeper understanding through learning by taking part in these contests as occupational experiences. The ‘workplace’ is viewed as being surrounded and supported by the team members in a collaborative manner. These experiences also include observations of others such as his/her competitors (both show jumpers and horses), through mentorship, coaching and peer learning and drawing from their past and ongoing occupational know-how. One can also draw from new ideas and experiences such as research findings especially with the use of technologies (e.g. digital replay of the showjumping events), and beyond occupational practices (e.g. an appreciation of animal paintings by George Stubbs).

The decision-making system propounded by Kahneman (2012) offers another insight into perhaps a different area of occupational activity. System 1 may kick in when approaching a specific fence, which may be new to the jumper and horse and using both previous experiences negotiate the approach in a split-second decision. System 2 requires effortful mental activities, which reflects the previous training and practices and the decision-making process is slower to prevent irrational and intuitive behaviour. Both methods may be applied in this specific situation depending on the contexts. The contexts included knowledge of the approach jump and the degree of preparedness of the horse and rider etc.

Turning to the pedagogic applications, the social constructivist approach is helpful in that it offers a starting basis of knowing where the learners are coming from regarding their know-how of the occupational subject and learning requirements. Using this conceptual approach, a deliverer can interpret the curriculum. The curriculum may concern the specifications and recontextualised (Content Recontextualization) to the needs of the learners as well as adhere to the constraints of resource availability, etc. It also offers insights into timetabling and pacing issues. The ‘ongoing recontextualization’ process (Loo, 2014) offers insights into how the disciplinary knowledge between subject areas (e.g. between anatomy and equine studies) interacts. The process provides insights between theoretical/explicit knowledge (e.g. occupational know-how) and every day/tacit experiences (e.g. riding a horse in a showjumping or dressage event). The knowledge is continuously combined and modified due to different occupational, pedagogical and work practices and experiences. A deliverer becomes more informed of her/his practices, and these can be applied in the educational activities. The Integrated Applied Recontextualization (IAR) process offers insights into the complexity of combining pedagogic, occupational and work know-how (Occupational Pedagogic Knowledge or Occupational Teachers’ Capacities). IAR assists the deliverer in choosing the appropriate teaching strategy for the specific learners and setting.

Summary

This article provided an understanding of the complexities of occupational teaching on TVET programmes regarding the know-how types and their applications as viewed from the conceptual framework (Loo, 2018). The next and final article will centre on an FE lecturer in art and design.

References

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Short bio

Sai Loo (PhD, MA, BSc, FHEA, ACA, FETC) has taught in FE and worked in industry as a Chartered Accountant. Sai has published over 120 articles, conference papers and keynotes (84 per cent are single-authored) including six research monographs with Routledge. His research area is 'occupational education' across teaching, learning and work settings from pre-university to professional education.