Transforming learning through Scholarship

Session Abstract

TILT ALTC 5.07.16

Enhancing students' understanding through flipped learning techniques to strengthen conceptual thinking

Chris Sweetman, New College Nottingham

The session described the research process undertaken for Land Navigation- Coaching Concepts as a case study, via a PowerPoint presentation.

Established methods to coach land navigation techniques focus on teaching to a set of instructions or to a 'recipe'. Are there other ways to assist learners in acquiring these skills? Attending a seminar on 'Understanding the Art of Flip Learning' at Loughborough University [1] a method of teaching through ideas (concepts) was put forward so the answer was: maybe there are.

The rationale behind developing concepts and defining critical characteristics is to provide insight and promote a lasting understanding in land navigation to students progressing onto/ in university or in employment within public services.

After drafting a set of concepts there was the requirement to develop critical characteristics for each area. There was a feeling that this could be developed further by including a wider audience in this research.

For this the services of students studying a higher level vocational qualification were engaged. Some of these students were studying a unit within this a qualification involving land navigation. Two separate groups of students were asked to come up with critical characteristics relating to each concept.

This proved to be an ideal arena for investigating ideas as each group came up with differing critical characteristics and included ones not previously thought of. Although the ones originally listed were not disclosed to the students they also came up with similar ones to this control sample. This provided evidence to confirm all parties were adopting similar approaches on selecting critical characteristics.

Further discussions involving these students supported the need to continue with this study. After these discussions the next stage involved developing, refining and collating comments arising from this interaction.

Applying this information it was decided to name this model as 'The 4 D's of Land Navigation'. At present application of 'The 4 D's of Land Navigation' model is very much a work in progress and further research is being conducted at present and in the future with a variety of groups.

The findings were published in the Institute of Outdoor Learning 'Horizons' magazine Spring 2016 issue 73.

In summary, the presentation highlighted the wider application of flipped learning to heighten conceptual learning and the transferability of this case as a model across

disciplines. This also exemplifies Boyer's [5] scholarship of 'application', whereby real-world problem solving is stressed as a form of higher academic research.

Questions were invited from delegates who may wish to follow up on the main themes of: conceptual learning to solve problems in practice; flipping learning to appraise assessment more profoundly; and the model's application to other disciplines.

References

[1] 'Understanding the Art of Flip Learning' seminar held on 2nd September 2014 at Loughborough University

[2] Walter Parker in Concept Formation http://teachinghistory.org/teaching-materials/teaching-guides/25184

[3] Professor Kate Jeffery 'Navigation Networks in the Brain' published by the Royal Institute of Navigation in "Navigation News" September/October issue (2014)

[4] More on concepts http://cmap.ihmc.us/docs/concept.php

[5] Boyer, E. (1990) *Scholarship Reconsidered: Priorities of the Professoriate*. New York: The Carnegie Foundation for the Advancement of Teaching.

Acknowledgements

[1] The following were speakers at the 'Understanding the Art of Flip Learning' seminar:

Prof. Simon Lancaster *University of East Anglia*
Dr. Marcus Collins *Loughborough University*
Dr. Jeremy Pritchard *University of Birmingham*
Dr. David Nutt *University of Reading*
Dr. David Dye *Imperial College London*

The seminar was organised by Dr. Mark Jepson, Dr. Simon Hogg and Dr. Nicola Jennings from Loughborough University.

Chris Sweetman has been teaching adventure activities in the Further Education sector, including HE levels, for 25 years. Chris has the Mountain Leader Award, is an MSc and holds a PGCE in PCE. He is an Associate Fellow of the Royal Institute of Navigation and a Fellow of the Royal Geographical Society.