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Visual tools as a learning and teaching strategy within healthcare education

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NET conference
Tuesday 2 - Thursday 4 September 2008

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Caroline Taylor, Senior Lecturer, University of Huddersfield
Dr Rob Burton, Senior Lecturer, University of Huddersfield

Tuesday 2 - Thursday 4 September 2008

Applicable to the theme: *Learning and Teaching Strategies*

Abstract

There are a wide range of visual tools that can be used within a structured approach to support learning and teaching. Visual tools include mind maps, concept maps and various other diagrams that can each be used in a variety of ways to aid, develop and represent learning.

Caviglioli et al (2002) state that we all have schemas formed by our external and internal experiences. By representing schema externally they can be added to, adapted and changed, particular aspects can be scrutinised in detail and explored for further analysis. Visual tools can be used by students to develop maps which enables them to absorb and understand information. The utilisation of visual tools also enables students to identify and externalise their models of understanding. Through this process, problem-solving approaches to learning and teaching can be promoted. The visual tool is therefore used as a vehicle which enables students to develop conclusions after working through a problem.

Buzan (1995) states that, traditionally, education has been built on the structural patterns of speech, which are in the main linear in nature. However he argues that the human brain does not simply think in a linear fashion. What is not accounted for is the multi-modal nature of the human 'holographic' brain. Vision is a symbolic process and as images are inputted into the brain any number of representations of it can be formed. Visual tools can be used in order to assist students to assimilate their findings/conclusions and provide visual explanations of these representations.

Visuals tools may be used by students within educational institutions in a variety of ways to support them in both the planning and presentation aspects of their work. Within the practice based learning environment, students may use visual tools to develop their skills of problem-solving and decision making. The tools also enable students to develop their time management and organisational skills. All of which contribute to their overall professional development and growth as they work towards becoming an effective practitioner delivering high quality nursing care.

In addition, nurse lecturers can effectively utilise visual tools to support the planning of lectures tutorials and practice learning opportunities. Once experienced in the use of mapping and presentation of data using visual tools,

healthcare professionals can further use the tools to enable them to plan their personal and professional development associated with life long learning.

These tools can be used for higher-level thinking and not just the merely descriptive. In using them, analytical thinking, where a subject is rigorously examined in a logical step-by-step manner (Rose and Nicholl, 1997), can be made easier, hence the suggestion for their use to provide portfolio evidence of information and reflections. This would fit the notion of Williamon and Valentine (2002) of hierarchical organisation as a cognitive principle that applies to the encoding and retrieval of both motoric and symbolic information. There is no Visual aspect that cannot be used within these and they can be adapted and developed in however the individual wishes to do so. The use of the tools relate to the representation of levels of sophistication of information, Burton and Bodenhamer (2000) suggest that humans make representations in the forms of nominal (sorted into categories), ordinal (compared or ranked against the qualities of other representations), interval (comparison with even more detail) and ratio data (highlighting interrelationships and meaning between representations). It is by recognising the tools used to represent types and levels of data the student and facilitator can utilise them in the presentation of data and demonstrate problem-solving

An original project, funded through a teaching and learning grant, resulted in the development of a teaching package to support the use of visual tools within higher education. This work was undertaken within the School of Human and Health Sciences at The University of Huddersfield, the use of these tools is now integrated within the curriculum for pre-registration nurse education. Workshops for students and staff are facilitated by the project designers to support its dissemination across the school and university.

Aim of presentation:

The aim of the presentation is to discuss the use of visual tools as a learning and teaching strategy within healthcare education.

Objectives:

1. Identify the use of how visual tools can be used within healthcare education as learning and teaching strategy.
2. Share ideas on how these visual tools are used within the curriculum at The University of Huddersfield.
3. Discuss how these can be used as an assessment strategy and the development of there use within higher education to demonstrate levels of understanding and problem-solving.

References

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