

Innovative Pedagogy for Geospatial Lifelong Learning

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SUMMARY

The core geospatial surveying body of knowledge that must be taught to students is generally well understood. As a vocational subject the focus on teaching has usually been on the student obtaining the core specialist knowledge via transmission from teacher centered activities. Students prove attainment of learning through traditional assessment methods such as: reports, calculations, field class results and exams.

These assessment methods can demonstrate attainment of subject matter however students should graduate from a University with more than just text book knowledge and competence at operating instruments and software. They should develop higher order skills as well as transferable skills, often called ‘graduate attributes’.

Pedagogy used to develop these skills typically receive less attention in geospatial literature.

There have been calls for a broader development of a Surveyor’s education, acknowledging the importance of lifelong learning. In order to be a lifelong learner certain skills and values must be developed. Development of these skills may be improved with pedagogic techniques that move towards student centered learning strategies.

This paper will outline two such techniques that have been introduced by the author on the professionally accredited, post graduate taught programmes in the School of Geographical and Earth Sciences, University of Glasgow.

Firstly, peer assessment, which can help students adopt deep learning strategies. It will be shown how online peer assessments are used as part of student’s summative coursework.

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Secondly, students write a personal reflective diary during a week-long land surveying field class. In this they track their own development of the Glasgow Graduate Attributes (GGA). Personal reflection allows students to take ownership of their own learning, vital for continued professional development (CPD) beyond University.

The relevancy of these techniques in professional practice and one's own CPD is explored.

With the introduction of pertinent educational literature and practical examples of implementations of these techniques it is hoped that others responsible for geospatial education may consider implementing these techniques.

Inclusion of a 'Geospatial Learning and Teaching' component (covering pedagogy and development of graduate attributes and lifelong learning) should be considered in any profile or model for geospatial education.

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