READY AND ABLE GRADUATES: GIS as a tool for dispositional development

Michael Horswell and Harry West

To acknowledge, please use:
Students have changed...

• Students realize that subject knowledge is only one outcome of higher education
• Students expect content to be relevant to their career / vocational aspirations
• Students expect to be prepared for the workplace
• Graduates expect to be able to compete successfully for employment
• Student expectations of us are shaped by forces outside of the academy
• We have to be both anticipatory and responsive to these forces
...and what we do has changed!
Problem based learning

- opportunities to develop professional skills and dispositions, to explore ways of thinking about, and practicing, within discipline areas
- opportunities to fully engage in the experiential learning cycle - planning and preparing for practice experiences - engaging in practice - reflecting, interpreting and making connections during and after practice

Challenge

Geography

Ability

Independence

Confidence
Life beyond university

Figurative context
Processes and products
Professional conditions
Learning and instruction
Curriculum and practice

Authentic assessment
The temple of authentic learning

Subject
knowing, technical skilling,
and dispositional development

Engaging
Planning
Preparing
Applying
Interpreting
Reflecting

Problem-based learning • Spatial thinking • Problem solving • Creativity • Authentic assessment
Disruptive assessment
“I made a lot of progress with my **technical skills** and **self-confidence** during the task. I have learned that a **good quality of work does not come from quick decisions, processes or techniques.**”

“The experience of this project was enjoyable, learning to deal with constant setbacks created a **resilience** within me - which is a **key life skill,** showing that I **can adapt to adverse situations. My confidence has improved** since this project. I am proud of the final product.”

“By learning to be reflective, I have come to **identify my weaknesses and strengths.** It is another GIS project where **my confidence in my abilities has grown** despite the inevitable setbacks. Instead of dwelling on mistakes, I **chose to be proactive** and learn from them.”

“I have learned to **rely on others** more and also found that I **can help others when they are struggling** with something. This is a key lesson.”

“I have become much **more confident** through the process because we utilised the **strengths of all team members** to our advantage. I have learnt a new and exciting way to present data which I feel will help me in **furthering my career.**”

“I am very **pleased with my progress** throughout this project and the three years of using GIS and **never thought I would be able to produce work like this** when I first used the software.”
The ready and able (GIS) graduate

- Theoretical knowledge
- Technical skills
- Spatial thinking
- Data management
- Data analysis
- Numerate
- Graphicate
- Literate
- Articulate
- Organized
- Confident
- Ethical
- Resilient
- Lifelong learner
- Resilient
- Ethical
- Confident
- Influencer
- Collaborative
- Problem solving
- Analytical
- Enquiring
- Integrating
- Creative
- Reflexive

- Cognitive
- Specialist
- Generic
- Communicating
- Acting
- Behavioural
- Knowing
- Thinking