Expert guide: Designing Successful Capstones

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Capstones are substantial culminating learning experiences that take place in the final stage of an educational program, offering closure and a focus for the sense of achievement that comes with completion. Capstone design is usually structured around

1. integration and extension of prior learning,

2. authentic and contextualised experiences,

3. challenging and complex problems,

4. student independence and agency,

5. a concern with critical inquiry and creativity, and

6. active dissemination and celebration.

Whatever the focus and scale of the capstone, it is an opportunity for students to take part in an exciting and challenging experience. The experience allows them to take charge of their learning and test their professional and personal capabilities, as well as developing confidence and preparing for the transition to life beyond their course or program.

How do capstones relate to employability and metacognition?

Capstones are usually designed to provide a bridge between the educational and post-graduation context, involving some form of project or problem-based learning processes, placements or simulation. Many capstones engage external partners from industry or community with student work in projects, mentors or sponsors, or as hosts for work-based learning. Capstone students may also take part in any combination of individual, team-based, discipline-focused or interdisciplinary activities.

Capstones provide a realistic experience of professional processes when they are designed with

1. sufficient space for iterative development,

2. opportunities for failure and resultant self-correction,

3. self- and peer-review involving critical reflection, and

4. external engagement: engagement beyond familiar environments, contexts and people.

The ability to critically assess and select information or tools that have utility in a particular context, and to navigate new and complex challenges, are key professional capabilities that can be drawn out through the capstone experience.

Capstones which use real-world problems, processes and challenges immerse students in topics and issues that further connect to possible post-graduation lives. Requiring students to independently identify and extend the limitations of their own knowledge in the service of navigating these activities helps them to determine the relevance of their educational experience to their personal and professional futures.

Five principles of a successful capstone

1. **Choose a model that works for you in your context.** Capstones may be projects, placements, simulations or any combination of these; they may have a research or practice focus, and they can be personal, community or industry directed.

2. **Give students sufficient space to make decisions.** Students need to make and own decisions about their topic and/or process: they can't demonstrate independent capability if we tell them what to do at every step.

3. **Help students to "see the point".** In the first few weeks of a new capstone, particularly in a course where students are unused to decision-making, some students can struggle to understand why the rules are different. Your goal is to help those students see the relevance and importance of the capabilities they are developing.

4. **Give students scaffolded support.** Capstones are transition experiences often with steep learning curves, so provide useful tools, guides and opportunities to seek guidance when they lose confidence. These include the employABILITY

thinking resources within the student starter kit. Remind students that failure is a crucial part of the learning process and teach them how to give and receive feedback. Ensure that students engage in regular critical reflection and that they incorporate their findings into their future learning.

5. **Try new things and take the students with you.** Capstones are a place to experiment with ideas, so be ambitious and work with external partners to create the most interesting and exciting opportunities for students.

Four things to avoid

1. **Don't micro-assess:** the assessment of capstones should be focused on the desired outcomes - the maturity and capacity to apply knowledge and navigate challenges in context.

2. **Don't over-teach:** capstones are the last chance students have to move to independence and so must be designed to allow space for students to work through problems and make decisions for themselves.

3. **Don't harness curriculum design to the demands of administration:** timetabling and workload planning tend to mitigate against the variable support students need across a capstone, but a course should never be designed to put regularity above learning needs.

4. **Don't give up!** Capstones can challenging, hard work and frustrating, but with a little experimentation and perseverance they can be joyful, illuminating and memory-making.

Further reading and resources

- The *Capstone curriculum across disciplines* resources and tools can be found at www. capstonecuriculum.com.au

- The *Rethinking final year projects and dissertations* Higher Education Academy project (from Professor Mick Healey) can be found at http://www.heacademy.ac.uk/projects/detail/ntfs/ntfsproject_ Gloucestershire10

- Participate in the Transition-out Network as part of the Students Transition Achievement Retention and Success (STARS) conference http://unistars.org/stars-network-groups/transition-out-network/

- Pertinent student resources include Writing a cover letter, Making the most of feedback, Using critical reflection and What's your persona?.

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