

Capstone units and the transition from university to professional life

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Abstract

Reports on the future of work in 2015 and 2016 reveal that today's graduates face up to seven career changes in their working lifetimes. So it is vital that they develop the skills to adapt to these transitions. Capstone units and experiences have been chosen by the Australian higher education system as the most appropriate mechanism for assisting final-year students to manage the transition from university to professional life. Capstone units are also favoured by journalism educators in Australia. This paper reports the findings and agreements of an 18-month Australian National Teaching Fellowship study that investigated how capstones are viewed and used by journalism educators. The second part of the paper argues that capstone design is often limited to the demonstration of knowledge and skills, but in the ever-changing world of work, graduates also need well-developed personal and professional identities, solid reflective practices and lifelong learning skills.

The importance of capstone units

Internationally, the term “capstone” has most commonly been used in the United States, where a capstone often takes the form of a “senior seminar”. As a graduation requirement, this may comprise a service or workplace experience and project, a significant paper or a series of culminating activities in a major or interdisciplinary area. In the simplest terms, capstones are substantial culminating learning experiences that take place in the final stage of an educational course, offering closure and a focus for the sense of achievement that comes with completion. From a quality assurance point of view, capstones can also provide a means of demonstrating course-level learning outcomes (Krause et al., 2014). Authentic experiential learning programs such as capstones provide students with invaluable learning experiences and prepare them for professional careers (Castles & Hewitt, 2011).

The terminology is relatively new in Australia, and appears to have come into common usage gradually over the past decade or so, although there is clear evidence of capstone-like activities occurring for a much longer period. It is certainly the case that a significant final-year integrative project has long been a common feature of undergraduate degree programs and course majors in

many disciplines in Australia and elsewhere, particularly in engineering and design. A cursory glance at the undergraduate degree offerings of Australian higher education institutions suggests there is increasing adoption of capstones in a variety of formats. For example, an Australian audit of undergraduate business degrees found a similar prevalence of capstones, at 82 per cent (Bailey, Acker & Fyffe, 2013). However, Kift et al. (2013) argue, “it is unlikely that a single capstone subject will be able to bear the burden of assuring the entirety of a particular course’s learning outcomes” (p. 63). Regardless of these challenges, and given the potential benefits to students and their capacity to provide a focus for evaluation, there are indications that capstones will play a key role in establishing and assessing course-level learning outcomes in Australia. The most common capstone curriculum models are project or problem-based, at 89 per cent (Hauhart & Grahe, 2015).

The Australian Qualification Framework (AQF), which is the national policy for regulated qualifications in the Australian education and training system, now requires all university degrees and course majors to rigorously map learning outcomes against agreed national standards. In particular, there is a need to map and evidence the relationships between generic attributes and disciplinary capabilities; skills and knowledge and their application; disciplinary communities, professional bodies and industry; macro course structure and micro subject design. As a result, many Australian universities have introduced capstones with the twin aims of providing students with an enhanced undergraduate experience and a locus for quality assessment. Furthermore, the Australian Tertiary Education Quality Standards Agency (TEQSA) will apply the threshold standards, including the qualification standards, when deciding whether to grant registration or renew a provider’s registration or to accredit courses. It seems sensible, therefore, to ensure capstone units adhere to these standards (Australian Qualification Framework, 2013).

Lee’s (2015) research on capstone curriculum in Australia emphasises transition and independence. Capstones are the culminating experiences for undergraduate degrees, and they serve a long list of functions. They provide students with the context in which to integrate and apply prior learning, provide depth and complexity, engender independence and confidence, and orient and assist in transition to life after graduation. They are special, significant, challenging and exciting. Increasingly, they are also conceptualised as the key location for identifying whether students can demonstrate the achievement of many, if not all, degree program learning outcomes. Lee (2015) identifies six common capstone models used across disciplines: externally oriented projects; academic inquiry projects; practice-oriented simulations; practice-based consultancies; task-oriented simulation; and professional placement (Lee, 2014, p. 1).

Other researchers highlight the opportunities that capstone courses give students to contextualise their professional development:

An opportunity for final year students to both look back on their undergraduate study in an effort to make sense of what they have accomplished, and to look forward to a professional existence where they can build on that foundation. It is during the capstone experience that students complete the transition from their primarily student identity to embrace the beginning of their professional identity. (McNamara, Field & Brown, 2012)

Billett (2011, p. 14) stresses the need to be clear about specific learning outcomes and to consider options other than supervised placements to secure intended educational purposes. It is clear that a “one-size-fits-all” approach will not succeed. As St Clair (2015) highlights, the ever-changing world of journalism is a current challenge that requires journalism students to develop and demonstrate new capabilities such as enterprising and entrepreneurial skills:

The world of journalism in the digital age is changing faster than university curricula can keep up. News is now produced in forms and on platforms that were non-

existent 10 years ago. Journalists may increasingly generate their own work opportunities in entrepreneurial news outlets and start-ups, rather than as employees in legacy newsprint and broadcast media. Substantial workforce contraction has also occurred since 2012 as revenue in print and other traditional media has found new homes in social media and search engines, and over 1000 journalists (or 15 per cent of the journalism workforce) were made redundant. Journalism graduates therefore need to be flexible, innovative and enterprising to survive professionally in this evolving setting. (St Clair, 2015, p. 128)

Embedding capstone units in undergraduate journalism degrees and majors gains even greater importance and momentum when one considers the reports in 2015 and 2016 on the changing world of work. The 2015 *New work order* report, published by the Foundation for Young Australians (FYA), shows nearly 7 per cent of young Australians find their first jobs in roles that will either look very different or be lost in the next 10 to 15 years because of automation. The report looked at three economic forces – automation, globalisation and collaboration – and their impact on the future of work. It concluded that young people today can expect to have upwards of 17 jobs in five industries over the course of their working life (FYA, 2015, p. 2).

The 2015 Committee for Economic Development of Australia (CEDA) report on Australia's future workforce claimed that more than five million people – up to 40 per cent of Australia's workforce – could be replaced by automation within the next 10 to 20 years. CEDA's report highlighted that almost five million jobs face a high probability of being replaced in the next two decades, while a further 18 per cent of the workforce had a "medium probability" of their jobs being eliminated (CEDA, 2015). In 2016, the World Economic Forum (WEF) stated that in the past 25 years, Australia had lost one million jobs in both manufacturing and administration, but more than one million jobs had been added to the knowledge and service industries (WEF, 2016). These findings do not imply that there will be fewer jobs in the future, but rather that there will be different and varied ones. The consequences of the new world of work mean journalism graduates will experience many changing roles throughout their careers. So, it is vital that students develop the skills to adapt to future transitions. Capstone units and experiences have been chosen by the Australian higher education system as the most appropriate mechanism for assisting final-year students to demonstrate their acquired knowledge, analytical capabilities and job skills, and to manage the transition process from university to professional life and work.

But not everyone agrees. Ivison (2015) argues that there is too much focus on graduates being job ready. He criticises the economic approach to higher education which focuses on a market-led agenda, and argues that this is leading to an identity crisis for higher education because universities have become an inadequate mix of research and vocational training that sees far-reaching changes to course content with more emphasis placed on vocational outcomes. Ivison (2015) argues that the uncertainty of the future should not be used to reduce the importance of disciplinary depth as well as a broad range of generic capabilities. A focus on narrow occupational competencies will not serve students well: "Remember that university is not a job training centre and that graduates could be left with a huge dose of career paranoia" (Ivison, 2015).

Journalism capstone units

Capstone units are the desired structure among journalism educators in Australia, especially in helping graduates transition from university to professional life with appropriate knowledge and skills. This fact emerged from the findings of an 18-month government-sponsored Australian National Teaching Fellowship study that reviewed undergraduate capstone units embedded in journalism degrees and majors in Australian universities. The study was conducted from late 2015 to early 2017, and it revealed that capstone units were in common use in 18 out of 30 tertiary

journalism programs. The study was divided into two stages. The first stage involved face-to-face interviews with journalism academics at 18 universities in five states, to discover what types of capstone unit they used, the principles they employed and the skills students needed to be able to demonstrate and apply. In the second stage, this data underwent a validation process to gain agreement on aims, models, principles and skills.

The study

In the first stage of the study, 30 face-to-face semi-structured interviews were conducted in the offices of journalism educators in 18 universities in five states – New South Wales, Victoria, Queensland, South Australia and Western Australia. The educators were either heads of journalism programs or course coordinators. The universities were selected because they offer journalism capstone units (often in diverse formats). The four interview questions were open-ended to allow each participant to describe, as fully or as briefly as they preferred, the reasons for their decisions. Every participant signed an information and consent form before each interview. The interviews lasted at least one hour, and all interviews were recorded and later transcribed. The universities were: Monash University, University of Melbourne, RMIT University, Swinburne University, University of Canberra, University of Sydney, University of South Australia, University of Wollongong, University of Technology Sydney, University of Adelaide, Curtin University, Murdoch University, University of Notre Dame, Edith Cowan University, Deakin University, La Trobe University and QUT. Several follow-up telephone calls were made to obtain clarifications and further information.

To avoid extending the research process via more data collection and discussions, the author selected journalism educators from five universities in Melbourne who were representative of the diverse range of journalism academics in Australia, especially in terms of age and the time spent working as journalists or educators or both. This group met at the Victoria State Library to discuss the second stage of the study – the validation process. So, in the first stage, 30 educators were interviewed about capstone units; during the second stage, eight academics, selected from the group of 30, formed the validation group and developed an agreement.

One key aim of the two-stage study was for journalism educators to identify and agree on aims, common principles, types and skills, as journalism capstone units (before this study) varied in content, delivery and learning outcomes. For example, some degree programs opted for research projects, while others offered professional placements or a selection from a list of core units. Previous attempts to measure journalism graduate capabilities had been linked mainly to professional industry placements, with an emphasis on acquiring rather than demonstrating capabilities. In fact, there has never been a specific national strategy for the promotion of measuring the capabilities of graduate journalism students in the Australian university system (Cullen, 2016, p. 172).

Agreement on aims of capstone units

In the first stage of the study, the 30 journalism educators expressed a range of common understandings on the nature of capstone units, especially that capstones are final-year units designed for graduates to demonstrate the knowledge, skills and capabilities they have acquired over three years of study. Generally, the educators agreed that a prime aim of a capstone unit was to improve graduate employability. This was often achieved through the use of multimedia portfolios which demonstrated students' written, audio, visual, photographic, online and social media skills. Common phrases used to describe capstone units included: "bringing together of skills and knowledge acquired over a three year period", "a full stop on their course", "a throwback to the future", "rounding off their degree" and "making sure they are job ready".

A key issue, however, was whether capstone units should be primarily a means of learning new knowledge and skills or, while still being a learning experience, primarily aimed at allowing students to apply their mastery and synthesis of the knowledge and skills gained over the course of their degree or major in journalism.

There was general agreement that a journalism capstone unit should:

- ▶ Result in a publishable outcome;
- ▶ Provide an opportunity to demonstrate core journalism skills;
- ▶ Be student-centred and require students to articulate what they wanted to achieve and how they proposed to achieve their aim.

Agreement on capstone principles

After a lively and passionate debate, the validation group agreed on a set of seven principles, with the understanding that principles provide a guide to the nature and unique importance of the capstone experience in the student journey to graduation and beyond. While these principles echoed the five principles mentioned by the 30 academics in face-to-face interviews, it was agreed by the validation group that the new and longer list provided clearer content and direction.

- ▶ **Transition:** assist students to develop a sense of professional identity and support them to manage their career planning and development;
- ▶ **Integration and closure:** enable students to attain a sense of completion and an understanding of what it means to be a graduate and globally responsible citizen;
- ▶ **Diversity:** enhance students' capacity to engage with diversity in professional contexts;
- ▶ **Engagement:** require students to assume active roles and apply their learning in realistic, authentic and unfamiliar contexts, and to take responsibility for their own work;
- ▶ **Assessment:** align assessment practice to the agreed capstone principles; ask students to reflect on their own capabilities and performance;
- ▶ **Evaluation:** regular evaluations contribute to the demonstration of student attainment of discipline learning outcomes;
- ▶ **Skills:** identify core pivotal journalism skills for demonstration and application – writing, storytelling, digital broadcast competencies across all platforms, publishable content, producing to deadline and reflective analysis.

Agreement on types of capstone units

Findings (in the first stage of the study) from the interviews with journalism educators revealed that there were three types of third-year capstone units in use: newsroom simulation units, projects and internships (a term commonly used to describe a professional industry placement). The educators used at least one and often two (and sometimes three) types of capstone. The internship was the most popular, followed by newsroom simulation and then a project. The internship usually consisted of a four-week full-time placement at a media organisation. This involved consultation with the journalism coordinator about the suitability of the placement. High-performing students were commonly selected for these internships rather than those who were average or struggling with the course. However, several educators argued against using an internship as the only capstone unit as there was often little supervision and mentoring in the newsroom. Frequent discussions with students before, during and after the internship usually provided the most productive outcomes and experience.

The newsroom simulation unit was popular with the educators as it helped students demonstrate what they had learnt during their three-year undergraduate course. Part of this included a portfolio of published work and achievements.

The third type of journalism capstone involved a project, where students covered an event or a local social or political issue. Students were exposed to a wide range of journalistic skills including interviewing, writing, editing and keeping production deadlines. Critical reflection was considered a key part of the project.

Generally, the educators were satisfied that the benefits of a capstone unit far outweighed the negatives. For example, several of them said the capstone units enabled students to produce portfolios of their work or showreels – a basic requirement when students apply for jobs at media organisations. Others spoke of how internship and newsroom simulation capstone units allowed students to think and act like journalists, and to develop a confident and professional approach to their work. They could also identify gaps in their learning. On the negative side, there was divided opinion about whether to rely solely on one capstone unit, and university timetables often lacked the flexibility to cater for an intensive vocational course. Only RMIT University was able to structure its newsroom simulation unit into a whole day, once a week. Weak students struggled with internships as industry was more willing to employ highly motivated, intelligent and determined students.

When the eight educators from the validation group reviewed these findings from the face-to-face interviews, they considered the industry placement to be valuable but increasingly difficult to secure, of variable quality and non-inclusive, and recognised that only one institution offered a placement to all students in their final year. The newsroom simulation offered an authentic learning experience and an opportunity to demonstrate strengths. At the same time, it was resource intensive. The journalism project was seen to offer scope for platform-neutral and cross-platform journalism practice and the opportunity to engage in extended research and analysis. It was also seen as a means by which students could demonstrate course learning outcomes, namely knowledge, skills and abilities. In summary, the validation group believed each of the models had value and should be retained, perhaps as Capstone 1 and Capstone 2. There was general agreement that a project unit should be supported by rigorous intended learning outcomes which, while not overly restricting student choice of topic, should ensure that unit outcomes were comparable for all students.

Agreement on list of skills

The list of skills collated from the interviews with 30 journalism academics was seen by the validation group as comprehensive. However, the group also stressed that students would not have to demonstrate every skill – rather, writing, research and analysis would be core skills. It was suggested that any skills list should make it clear that the essential journalism skills must be platform-neutral.

Additional suggestions for skills to be added to the list drawn up by the 30 educators were:

- ▶ Audio (to replace the medium-specific radio);
- ▶ Advanced media literacy skills;
- ▶ Knowledge of the contemporary and emerging media landscape.

Unresolved was whether a capstone unit, or indeed any other unit in an undergraduate journalism degree or course major, should necessarily include skills development related to future employment options, such as freelance operations, start-up enterprises, contract negotiation and fee-setting. Given concerns about crowded curricula and universities' varying policy requirements, this matter is probably best left to individual universities to decide. The list of skills includes:

Disciplinary skills:

- ▶ Storytelling skills;
- ▶ Writing/grammar skills;
- ▶ Ability to produce to deadline;
- ▶ Ability to create content of a professional publishable standard;
- ▶ Ability to generate story ideas;
- ▶ Ability to pitch ideas;
- ▶ Ability to edit;
- ▶ Verification skills;
- ▶ Extensive social media presence/branding.

Skills across all platforms

- ▶ Audio;
- ▶ Video;
- ▶ Photography;
- ▶ Broadcast in various formats;
- ▶ Ability to publish across platforms.

Professional skills

- ▶ Being an ethical practitioner;
- ▶ Seeking truth, accuracy – balance and fairness;
- ▶ Being a mindful practitioner – reflecting on consequences;
- ▶ Knowledge and understanding of media law;
- ▶ Media literacy skills;
- ▶ Self-development skills;
- ▶ Resourcefulness and resilience.

Personal skills:

- ▶ Good oral and communication skills;
- ▶ Interpersonal skills;
- ▶ Being a team player.

Entrepreneurial skills

- ▶ Building and sustaining audiences across platforms.

Research and analytical skills

- ▶ Learning, thinking and problem solving.

While this list was not seen as exhaustive or prescriptive, journalism educators who embedded capstone units in their programs were encouraged to select agreed skills from the five different sections – disciplinary, professional, personal, entrepreneurial and research.

Enlarging the scope of capstone units

From the skills listed above, it might be construed that capstones are designed primarily to demonstrate the knowledge and skills students have acquired during their three-year period of study. Journalism graduates, however, will experience many changing roles throughout their ca-

reers, and so it is vital that students develop personal and professional skills to adapt to future transitions. Despite an already crowded curriculum, the author argues that the current scope of capstone design is too narrow, and encourages journalism educators to broaden their understanding of capstones and include, wherever possible, other important elements such as career planning, lifelong learning and a strong sense of personal and professional identity. This idea supports the view that universities should focus on educating the whole person rather than only discipline-specific knowledge and skills. Bennett, Reid and Petocz (2016) stress the need to embed employability development into the curriculum and broaden the focus from a graduate occupational goal to a lifelong professional orientation.

The challenge is to help students effectively manage their learning across lengthening working lives. For example, over the course of their studies, journalism graduates should develop an awareness of what it means to be a graduate of their discipline. They should be encouraged and assisted in the formation of an emerging sense of professional identity that continues to develop beyond their university studies (Hovorka, 2009). Although the literature acknowledges the role capstone learning experiences play in assisting students to develop a professional identity as they transition out of university, it is less clear on how this objective is achieved (Kift et al., 2013, p. 46). Careful thought needs to be given to the various ways capstones can contribute to the development of professional identities across entire programs.

Reflective practice should also play a large role in capstone design, as it is through reflection that students can become more aware and intentional about their own professional identities. Reflective practice facilitates both personal and professional development by encouraging individuals to give thoughtful consideration to contexts, themselves and their roles. It contributes to the acquisition and development of higher-order cognitive skills such as critical thinking. Reflective practice promotes self-awareness and can facilitate personal transformation, a sense of purpose and a sense of citizenship (Hovorka, 2009). It is therefore crucial that capstones provide opportunities for students to reflect on their learning, on the profession and on their future roles in order to develop their professional identities. Reflective practice has been recognised as an essential lifelong learning skill, especially in the way it contributes to the acquisition and refinement of higher-order cognitive skills, including critical thinking (Kift et al., 2013). Students need opportunities that encourage them to consider and reflect on what they have learnt, and to contemplate how their knowledge is or could be used in a professional context (Dunlap, 2005).

Closely linked to professional identity is career planning and development. Students need a level of understanding about their professional identity in order to reflect on career planning and development aspirations. This is an important component of the capstone transition principle: the world of work is so fundamentally different from the world of education that it requires an almost total transformation on the part of the new graduate (Shea, 1999, p. 95). In addition to career planning, employment preparation skills such as résumé writing, interviewing skills, networking, and pitching are useful to enhance students' career development learning (Kift et al., 2013, p. 47). Indeed, there is a pressing need for carefully designed capstones that enhance students' career readiness in order to ease their transition into the professional world.

Ideas about building a professional identity, developing reflective practice and career planning are not new. Nearly 20 years ago, Shea (1999) stated that capstone experiences can address multiple and diverse needs due to the broad range and flexible manner in which they can be designed. As such, capstone units assist final-year students to develop essential lifelong learning skills such as managing uncertainty and increasing resilience:

Thoughtfully designed capstones can promote holistic thinking, self-confidence, and self-efficacy, better equipping students with the skills to deal with the challenge and change of the workplace. Through the provision of these experiences, programs can fulfill their responsibility to prepare the whole student for the process

of leaving the institution and equip them with invaluable life-long learning skills. (Shea, 1999, p. 95)

Conclusion

Final-year journalism graduates will experience many changing roles as they transition from university to start their professional lives. Capstone units and experiences have been chosen by the Australian higher education system as the most appropriate mechanism for assisting final-year students to manage these changes. Capstone units are also favoured by journalism educators in Australia. This is evident from the findings of an Australian National Teaching Fellowship study of journalism capstone units which involved face-to-face interviews with 30 journalism educators from 18 universities in Australia from late 2015 to early 2017. One major outcome of the study was agreement on the aims and types of capstones, together with the principles and list of skills to be demonstrated by journalism graduates. While this is commendable, the author sees gaps in the design of current journalism capstone units, and urges educators, in the face of the ever-changing world of work and university administration duties, to include, wherever possible, a focus on the development of personal and professional identities, solid reflective practices and lifelong learning skills. The ultimate goal is to use capstone units to prepare graduates for a lifetime of work, not just their first professional job.

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