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Mentoring Undergraduate Bachelor of Arts Students at an Australian University Regional Campus

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Abstract

A personal teaching project, developed over six years at a regional university campus, offered mentoring to capable and engaged students with limited subject options. Providing individual or near-individual instruction enabled the mentored students to deepen their learning, extend their discipline knowledge and consider career steps. With their undergraduate experiences thus enriched many students excelled in their special subject. This individualised training and mentorship, above the general learning threshold available or expected, resulted in high grades and several research outputs: posters at conferences, conference presentations and refereed journal articles. Interactively mentoring students also provided a learning process for the academic mentor. Significantly, mentors' experiences in academic mentor-student mentee relationships receives much less attention than students' experiences and satisfaction. In the contemporary ethos of student-centred learning, the present study supports and exemplifies mentoring pedagogy as inherent in passionate teaching. Reflecting on the mentor's experience here identifies features and practices learned or consolidated in developing effective, caring, and productive undergraduate student mentoring. For the academic mentor, managing each relationship in terms of encouragement, ethics, expectations and transparency has been important to its success. Although the work did not receive a formal workload allocation, outputs have benefits for students in terms of their CVs and growth in personal confidence. Benefits for academic staff include achieving co-authored research outputs and the university benefits through additional outputs to its overall research activity and culture.

Keywords: Individualised learning, rural education, co-authoring, student mentoring, student projects, undergraduate mentoring

Introduction

Academic mentoring has features in common with other mentoring practices generally, but also distinctive elements (Burns, 2009). This article traces the development of an undergraduate academic mentoring project at a rural campus in the state of Victoria, Australia. This campus was one of the university's four regional campuses outside the metropolitan state capital. Even though linked to the larger main campus of this multi-campus university, this Bachelor of Arts (BA) program has continued to experience staff-student ratio cost pressures because of limited large-enrolment subjects to support smaller subjects with fewer students. Some academic travel between campuses and increasing use of screen technology provide additional options for regional students, as well as cost containment for management.

Three aims guide the present description of mentoring undergraduate students on a medium-sized regional Australian university campus.

1. To describe from an academic teachers' point of view what it is like to actively and progressively commit to a personal project supervising and mentoring students through an individually customised subject in the BA degree program. There are constraints as well as exceptional rewards in this kind of coaching and mentoring senior undergraduates keen to do well in a BA study program not offering all of what these students are seeking.
2. To document an example of academic mentors' perspective which is mostly absent in discussions of special projects, practicums and work placements. In many universities academics' perspectives take second place to orientation to students' experiences. It is largely axiomatic in contemporary education discourse that being "student-centred" is a good thing (Krishna, Toh, Mason, & Kanavarar, 2019). The necessary corollary of this is, however, that a primary contributor to such experiences being positive and providing learning opportunities, is the role of the mentor, supervisor, or placement academic. Monitoring students' progress, needs and providing a sounding board for ideas and concerns, is of primary significance (Long, Fish, Kuhn, & Sowders, 2010).
3. To reflect on the present series of student projects and development of teacher experience, reviewing constraints and strategies that positively shaped the project over time. Other circumstances and personnel differ, yet principles of mentoring and supervision have echoes or analogues across many situations, most closely in academia and postgraduate research, but even outside these teaching and learning institutions. This review supports other teachers considering similar work and assessing likely personal costs and rewards. From the present writer's point of view this could be a real gain for other academics and for their regional students (Devlin & McKay, 2019).

Thus, the present account is intentionally reflexive, narrating an autoethnographic stance, discussed later under method. This guides the conversation through personal experiences to summarise possible insights and contingencies of success. Having recently moved to another regional campus in another country, this distinct project has now ended. But members of this student cohort continue to develop beyond our engagement in the individual BA project, into postgraduate work and employment, and there is a positive sense of legacy and continuing relationship that is worth introspecting. From the first to the last individual project, 18 students completed 22 projects across six years, 2013-2019. These were capable and motivated students looking for learning opportunities and a significant percentage have gone on to further study.

There has been a several-decade increase in the numbers of tertiary students from around five percent to approximately one third of the young-adult age cohort in the population of western countries (Trow, 2005; Chatterji, 1998). This expansion has extended to include rural and regional campuses and degree programs. The classic flexibility of student subject selection in the BA that works well in large populations, too easily becomes fragmented in regional campuses. This is exacerbated if the logic of first-in-family to tertiary studies follows parental or student preferences for degree study in fields they perceive as "real" and useful careers. In practical terms this spreads BA resources even more thinly than in applied or professional fields.

Today the additional layer of universities' corporatisation processes redistributes spending between academics and other management functions and stress employment outcomes (Murphy, 2015). These confluences pressure universities to streamline subject offerings for students. Applied fields often have a base cohort moving through each year of the degree, even in regional campuses, all students attending most subjects rather than selecting subjects as is done in BA studies.

The alternative discussed here is not in opposition to technological linking of rural places to increase educational opportunity—this is an evolving space of possibility, options and quality of what analysts of future trends suggest is the emergence of “presence” as a key feature of the new digital society (Baldwin, 2016). At present video-link quality is improving but variable and city campus academics often do not understand how to speak in an inclusive manner to regional campus students on-screen, especially if they have city students in front of them.

Undergraduate special subjects may be final-year dissertations at a level below postgraduate thesis. They may in some cases be workplace integrated learning (WIL) or placements that incorporate student reflection on the experience. In other instances, the workplace learning resembles a Research Assistant experience that may interest students further in how research is conducted (Lopatto, 2010). These versions of individualised learning have parallels in applied programs, even when the institutional driver is not to accommodate the cost problem of smaller programs’ staff-student ratios.

Contextualising experience in academic-mentoring projects

Over six years I conducted special project subjects for regional students pursuing BA degrees at a regional Australian campus, mostly in sociology but also in planning, history, politics and English literature. This began as an effort at meeting the individual need of one extremely capable student seeking a subject choice and stymied by the subject offerings available. Together we approached our administrator and found already on the books a listed shell subject available across the social science and humanities called a “Reading Subject” that might be used. I would not be the subject controller/co-ordinator, a role held at the main campus, but could act as an individual supervisor, like a postgraduate supervisor but at an undergraduate level. We ran with that possibility and a high-quality extended essay resulted in the student passing with high distinction.

Previous experience mentoring undergraduates

I had previously been involved with final-year supervising and mentoring undergraduate dissertations in New Zealand, also within a regional campus, under two different conditions. The first version of this was within a new BA. A final-year BA degree subject was called “Research Project” and stood alongside other requirements including a third-year social science research methods subject, to complete the BA. Students were encouraged to apply one of the methods learned in their research methods subject to a research topic of their choosing. This required approval by myself as subject co-ordinator that the proposed topic was suitable in relation to students’ overall degree program; and also, able to be done in terms of issues such as a 14-week time-frame, level of difficulty in collecting data, and sensitivity of the topic. Unlike more recent experiences discussed here, undergraduates were not formally forbidden to engage in live research with participants outside the institution, but time, difficulty and sensitivity tended to push research projects in that direction. Student ambition was laudable but the exigencies of completion at appropriate quality and on time, were mostly identified in third-week discussion of the proposal. For some students, the requirement to include a time-and-steps-taken simplified Gantt chart often had the desired effect of helping show the limits of what was possible. For several years I taught this class as a cohort of 15-20 students in the third and final year of their BA degree.

That degree comprised three streams of professional training brought together and structured them into a new BA: the three majors were social work, psychotherapy and social science. A feature of the first two streams was the high proportion of mature students, in many cases parents returning to study as families were growing up, or individuals gaining a qualification for career change or return to the paid workforce. In addition to my student mentor role for the

final-year projects, I was appointed as Faculty Research Mentor. From that experience I gathered up many of the things I had learned into an article focusing on research mentoring of academic staff in a new degree environment (Burns, 2009).

The second experience of mentoring undergraduate students on that same regional campus was very different. The Bachelor of Business Studies degree (BBS) curriculum included a final-year “Special Project” and in this basic structural aspect, it was broadly similar to the BA, although developed earlier in a different degree-granting context, and not necessarily based on research. Compared with the present personally developed mentoring program, both of those two previous degree dissertations required a written output of 10,000 words. This is more than double the word length of the current program I have been recently involved in, set by the institution. The size may have been motivated at faculty level to ensure these degrees were accepted as robust measures of graduating students’ capacity compared to established degree programs. Several things made The BBS a different experience from the mentoring point of view from the BA: (1) There was no group cohort; (2) Although both subjects were conducted on a one-to-one basis between student and staff member, the BBS students consulted much less with staff about the topic and the options for writing and refining topics; (3) At week four, BBS students attended a proposal session presenting their topics; (4) Unlike the mature-age BA students, the younger male demographic often had minimalist intentions; (5) Many BBS students did little preparation, used few academic references; often writing skills were minimal.

In a useful overlap between those previous mentoring involvements with my present undergraduate mentoring, I was approached by a former colleague to co-author an undergraduate project he had supervised that showed promise of further development. Working interactively, this was eventually published (Yahanpath, Pacheco & Burns, 2018). Another intermediate experience in how undergraduate regional research can provide important academic insights come from collaborating with my PhD supervisor in writing up an undergraduate project he had conducted for several years in rural Australia. He had received major local responses because it was an issue of empty shops touching rural communities’ sustainability (Willis & Burns, 2011). In that article we cited Hoop (2009) for her exploration of how to engage students in rural communities to think in broader terms than just their rural locality, after she had moved from Chicago to Maine, the most north-easterly state in the United States.

The earlier Faculty Mentor role had two features of mentoring work I draw upon in the present reflections on undergraduate mentoring. First, mentees were academic colleagues, new and existing, in multiple BA disciplines, some with long teaching experience. There was an important peer dimension in helping people become research-active, but they varied in individual attitude willingness, ranging from keen to passively resistant. Those challenges caused me to develop several strategies I reported there. Second, in setting a reflective context for describing how to mentor colleagues, I worked through the literature and found myself distinguishing academic research mentoring from other mentoring relationships, including academic career support and coaching.

In the present discussion of mentoring late-stage, mostly final-year, regional undergraduate students, I want to distinguish the academic mentoring function of this ad hoc, non-compulsory subject, paper or dissertation. It contrasts with these previous experiences of (1) cohorts of undergraduates in BA and BBS degrees with common curriculum and formats for proposals and outcomes, (2) mentoring academic colleagues in lifting research outputs for staff newly teaching at degree level, (3) ongoing postgraduate supervision and mentoring of masters and PhD students.

These, in turn, can be distinguished as academic research mentoring with distinct features from other forms of colleague mentoring such as senior colleague sponsorship for career

development, and teacher mentoring a younger colleague reflecting within a safe relationship on what is working successfully and what things could be worked on.

Locating undergraduate mentoring

Useful mentoring principles are articulated across many fields. Individual circumstances borrow and adapt across domains to find value in applying and revising what works in given situations. In this section, a selection of material is considered that has worked with the ideas of mentorship and the dynamics of mentor-mentee relationships in the context of undergraduate studies in higher education (Law et al., 2019). As the discussion shows, even here it is worth recognising a variety of ways that mentoring takes place both formally and informally.

Among the diverse fields that utilise and write about mentoring, undergraduate mentoring has a long tradition of scholarship. Jacobi's (1991) literature review; Crisp and Cruz's (2009) review of the literature since Jacobi's work to 2007; and Gershenfeld's (2014) review from 2008-2012, provide solid summaries for scholars following these studies and scholarship. The present article is not an attempt to survey the subsequent literature and bring their review work up to the present. The focus here is on the experience of mentoring undergraduate students and ways that already exist in current individualised learning projects. Baker, Cluett, Ireland, Reading and Rourke (2014), for instance, compares group and individual supervision in undergraduate nursing, since "The challenge is to ensure that students develop independence and team working in a resource effective manner. The dissertation is one opportunity for this," finding benefits in both modes of mentoring (Nowell, Norris, Mrklas & White, 2017).

The undergraduate dissertation is a substantial piece of writing, similar but at a lower level, to graduate dissertations. The emphasis is on writing, and assumes some level of writing ability already developed. However, as Rowley and Slack (2004) observed nearly two decades ago:

Despite its significance, both in terms of student learning, and in terms of staff workload, there is very little literature on undergraduate dissertation supervision, and what there is does not examine either the total supervision experience or comment on the development of supervisors. Some of the work is relatively old.

Continuing development of university competition for students further elaborates the institutional demands for positive student experiences. Individual projects are not simply dissertations-extended essays. Workplace learning, practice placements or practicums, as they are variously called, also provide bridges between study and employment. In smaller regional centres these can make connections to local businesses and institutions seeking new staff, and post-study entry-level employment for students. It is often at this stage in undergraduate degree study that students come back from some weeks in an accountancy office, planning unit or hospital placement, enthused. They often have changed attitudes, having come to better understand the point of their academic study and its importance for their futures.

Other individual student projects in fieldwork, summer internships, law offices or laboratories may overlap with any of the above categories, for example, Cantelli's (2018) description of benefits. But the motivation and work satisfaction of hard-working placement academic mentors who experience changed student attitudes is equally significant in creating sustainable and positive ongoing student learning experiences. Mentors' satisfaction and motivation, or not, and experience of professional pleasure in this work is needed to counterbalance fractious, entitled, misguided, unsure, or disengaged students' participation. That cluster of professional feelings is the greatest reward in sustaining academic passion.

An example of a literature review gathering up mentoring from diverse fields is Holland's (2009, p. 3) point from workplace mentoring for training and apprentices, which applies also to undergraduates:

Two different models of mentoring are presented in the literature. The first is a restricted, functionalist model, where there is a formal distance between the learner and the mentor and where the focus is on learning outcomes rather than the learner as a whole person. The second is a relational model, where the learner is regarded as a valued equal who happens to have specific support needs, and where issues of respect and trust play a larger part. This relational model is regarded as the 'highest quality mentoring state'.

Long et al. (2010, p. 11) link the student experience to the academic mentor contribution:

My own interest in mentoring began during my first year of college. As a naïve freshman, I was surprised when a faculty member approached me after a large lecture class and mentioned that he had read my last assignment and thought I had a lot of "academic ability." I suggested he must have confused me with another more promising student. Upon his insistence, the conversation continued as did the relationship. Thirty years later, the fact that his interest focused on my person, rather than my understanding of a component of his course, still motivates me to pursue mentoring relationships with undergraduate students.

Long et al.'s work is an example parallel to the present article aim of giving prominence to the academic mentor's side of the relationship.

Shellito, Shea, Weissmann, Mueller-Solger and Davis (2001) also pivot the conversation from solely students' viewpoint to surveying both students as well as interviewing academics. From their research they suggested the following strategies for academic mentors:

- *Develop well-defined projects with student interest and ability in mind.*
- *Recognize and respect student time commitments outside the laboratory.*
- *Understand and communicate mutual expectations.*
- *Commit ample supplies and equipment.*
- *Spend time with your students.*
- *Know your students as individuals.*
- *Give positive feedback and encouragement.*
- *Be approachable and encouraging.*
- *Respect students as colleagues.*
- *Progress toward student independences.*
- *Encourage presentations and/r publications.*
- *Offer career guidance.*
- *Provide continued mentorship.*

These authors (Shellito et al., 2001, p. 462) report that "most of our faculty respondents indicated that mentor availability is the key to a student's successful research experience." Shanahan, Ackley-Holbrook, Hall, Stewart, and Walkington (2015) also draw on the views of experienced mentors of undergraduate researchers in compiling "ten salient practices of undergraduate research mentors":

1. *Do strategic pre-planning in order to be ready to respond to students' varying needs and abilities throughout the research process.*
2. *Set clear and well-scaffolded expectations for undergraduate researchers.*
3. *Teach the technical skills, methods, and techniques of conducting research in the discipline.*
4. *Balance rigorous expectations with emotional support and appropriate personal interest in students.*
5. *Build community among groups of undergraduate researchers and mentors, including graduate students, postdoctoral fellows, and any other members of the research team.*

6. Dedicate time as well to one-on-one, hands-on mentoring.
7. Increase student ownership of the research over time.
8. Support students' professional development through networking and explaining norms of the discipline.
9. Create intentional, ladder opportunities for peers and "near peers" to learn mentoring skills and to bring larger numbers of undergraduates into scholarly opportunities
10. Encourage students to share their findings and provide guidance on how to do so effectively in oral and poster presentations and in writing.

In these and other studies, laboratories or controlled environments applying for grants and other academic practices, make research seem more accessible than often in the BA disciplines. At the same time the possibilities opened up by comparing different fields and disciplines raises the bar for other academic staff understanding mentoring and what is possible and beneficial to students. Leeming (2016) describes a passionate teacher and her mentoring work:

Undergraduate research can and should be more than just a job. My undergrads have advanced in their attention to detail and are invested in the work itself. The outcomes from using my strategies are understandably difficult to quantify. However, within my lab, two undergraduates have received two grants for funding independent research, and one has used her experiences as the basis for an award-winning honors research paper on the impact of research students.

Many more comprehensive summaries can be found outside academic research mentoring in business, for young people, professional training in medical, teacher development, and other fields such as business management and elite sports coaching. This section has indicated the wealth of literature curating substantial volumes of research and commentary to help focus understanding support for mentoring undergraduates.

Questions of Method

Perspective

Using an autoethnographic method here draws on explanations articulating the mentoring experience from the perspective of the academic mentor-supervisor. This research method describes and reflects on individual experiences in a politically-charged or otherwise difficult-to-access environment that can be illuminated by recounting and analysing the experience. As a research method, the point is not biography or memoir, though obviously these genres overlap, but to illuminate a particular time, place and pattern of relationships or transition. Critics of the approach identify self-indulgence of memoir, fame or celebrity may occlude the social science focus delineating power relationships and mechanisms of resistance or socio-political change. A practical value of this approach, however, is often not talked about—the elucidation of professional work such as teaching, where autoethnography is able to achieve data gathering insights in an environment that is less accessible by surveys, focus groups and experimental designs.

Reed-Danahay (1997) and others following her such as Chang (2008) can be valued in relation to documenting professionals' specialised, complex and often tacit, advanced practice knowledge. Educators' experiences, as seen for example in the work of Peseta (2005, 2007), is just one sphere that could be a burgeoning field of research going beyond the training of professionals, and early career learning, to assessing the rich and mature experiences of high-level proficient practitioners. In the arc of research approaches from quantitative experimental research to qualitative inquiry, autoethnography sits at the extreme qualitative end along with phenomenological and interpretative approaches. Even more than conventional ethnography,

the researcher is the instrument of investigation and data collection. The field of autoethnography continues to mature with reviews and summaries beginning to emerge (Allen, 2015), exemplified for example, in the development of group or collaborative autoethnographies (Chang, Ngunjiri & Hernandez 2013).

Recruitment

The first step in the project developed in response to one A+ student asking whether there was some subject alternative to enrol in, because options on offer had already been completed, or what was currently available was not compelling. After consulting our administration, we were provided a code and enrolment details. We agreed to a topic between the two of us and met every 2-3 weeks between classes for an hour exchanging ideas about articles and books and the process of writing. As an avid reader, and highly motivated person with good writing and conceptual skills, the student's self-pressure was to cover a large enough volume of reading to develop in the writing an argument on the borders of intersecting interests in literature, politics and society. Despite a busy life directing local repertory and outstanding academic diligence, this student produced a long essay with modest mentor input in reading and revising, but mostly meeting three-weekly to discuss and link and explore ideas.

Two primary foci developed meeting the needs of this hardworking series of quality students. First, recognition of the limitations of BA course offerings that students were able to access beyond first-year, even with online and blended forms of instruction. The regional location in this respect acted as a constraint on students' possibilities, directing some options ahead of others. Second, an informal rule developed from the earlier inquiries of students who were clearly highly capable students. Over time it became apparent the mentoring arrangements made with motivated students was not so suitable to other students seeking merely a filler subject for their degree quota. After-class conversations about "doing a Reading Subject" it became clearer the purpose of the subject/project was assisting students to excel by them digging into a subject of their interest, but this required substantial personal effort. It became known the Reading Subject was not just to get students over the line with a minimal pass for minimal work and being able to avoid attending regular classes. Only a few occasions did this need to be made explicit.

Thus, how students came to express interest has been largely through informal regional campus networks. Often arrangements to do a Reading Subject came through conversations between students or student and staff near the end of the semester, as students looked around for other relevant subjects within their discipline area and focus. This has been an organic pathway developing from first-year sociology classes in which students and staff have the opportunity to make positive connections through the teaching process, experiencing being respected but also extended in their ideas and academic skills. With greater undergraduate study experience and capability, some of these segued into student focus or enquiry as to what else they might do, sometimes intimating a desire to do a particular topic at some depth than larger based classes are not so easily able to achieve. That continuing organic process through the individually mentored project can now be seen in further progress after this undergraduate mentoring experience, a number of these students have found their way into postgraduate work.

Student cohort

Eighteen students enrolled in 22 Reading Subjects, averaging 3.7 individual student projects per year or 1-2 per semester, but not in every semester. Only in the provisional first year was a single student mentored; in other years the number of students ranged between 2-4 per year, fitted into full-time teaching and regional campus outreach duties. In terms of gender mix, 8 women, 9 men and one gender diverse person undertook the subject. In terms of gender by individual subjects, one woman student took three subjects before we found two was administratively the limit, and the gender diverse person completed two. Overall, women took eleven Reading

Subjects, men took ten and the gender diverse person two. Of 22 projects attempted, only one was not completed for ill-health reasons. Grades ranged from between 70s to mid-90s. Mostly the group comprised mature students; four were undergraduates in the conventional 18-21-year age bracket finishing their BA in their early twenties. Other students ranged from the second half of their twenties through each decade to 60s, often with partner and family responsibilities. One man and one woman had full-time jobs as well as being students; two women had part-time employment they had adjusted to fit studies at different times of the year, but not without considerable study-work conflict. This article treats the data about these students as the basis of the findings section which reflects on personal and professional changes observed in teaching practice and sense of job-vocation as a tertiary academic.

Reading Subjects in the curriculum

The university's BA Reading Subject administrative codes indicate four options: taking the subject in either one of two main semesters; and at either second or third-year levels. Students could assign which BA major—Sociology, History, English, to which their Reading Subject contributed. Many of the topics chosen fitted within a sociology major, but as a sociologist my academic interests are broad and I have aimed to deepen students' understanding in terms of their disciplinary focus of choice. So long as students accepted that the university's marks/grade submissions and reporting occurred in the weeks after the official end of semesters, we could negotiate such timeliness issues as an early start, spreading work over a whole year, or varying the work-load in the first and second half of a semester to better fit other workload and family pressures.

Findings

Four themes provide reflection on the academic experience of mentoring able and committed regional students to achieve well and extend their undergraduate learning.

Passion for teaching and ethics of care

A passion for teaching to see students doing well and gaining multiple benefits from formal education systems is well documented (Hattie, 2003, 2008; Ruiz-Alfonso & León, 2016). Meeting students' needs during curriculum changes in two rounds of departmental restructuring, keeping them anchored and safe, continued throughout this project. Success in my project meant adjusting practices to more effectively support their learning to achieve in their individual projects. This is consistent with Lopatto's (2010, p. 27) observation that, "The positive effects of an undergraduate research experience on student learning, attitude, and career choice have passed from anecdote to systematic data." This comes from making mentoring relational and reciprocal, not just for the student but for the academic too. As Long et al. (2010, p. 21) state:

For the faculty-student relationship to flourish, the interaction between faculty and students must benefit both participants. Mentors need not be solely altruistic. Expecting faculty to act in selfless ways with students when there are already excessive demands on faculty is an unrealistic expectation. I am a mentor of undergraduates because the benefits significantly outweigh the costs. Students and faculty both benefit from the exchange.

Students' enthusiasm in turn nourished me personally and academically through the organisational change.

An important ethical consideration for autoethnographic research derives from the same reason the method is able to generate close insights of complex and often tacit practices. For the purpose of the present discussion names, gender identification and years of students have been avoided because the study is about reflecting on the academic's experience of undergraduate mentoring, not making statements about the satisfaction or actions of the students themselves.

Certainly, there is substantial pleasure in seeing personal engagement and willingness to work hard flourish as students feel they are being treated with respect and recognised as individuals.

At the same time, as Long et al. noted above, it has been a feature of my start-up conversations with each new student (1) that this is not credited to my workload so I need to gain “value” in other ways. Students taking the project seriously is one reward for me. I feel personally worthy if what I contribute, I can see is taken on board and helps students complete a significant piece of learning; (2) I often tell students that whatever their topic, I will intellectually engage with it alongside them, and learn things myself. Again, this honours them, and is the truth for me; (3) as I have gained greater confidence in reading the student and reading the project content, I discuss whether a conference paper or other publication might be possible. Care is needed here: for some students this is a huge “plus” to potentially be operating at that high level, and it would add to their CVs. My presenting a conference paper based on their/our special project often seems an attractive option to students. If for others it is a step too far and adds worries, there is no need to raise the issue. One intermediate position is to raise the possibility, but reassure students that a good project or assignment is the agreement we are making for Reading Subject, not the possibility of a later research output.

Writing confirming emails of meetings or getting students to write an email after we have met, listing what is agreed to do next, keeps a paper trail for them, for you, and for the main campus co-ordinator or any person with higher university oversight. I sometimes suggest to students, imagine our subject was being checked, our emails should show transparently an appropriate supervisory process was happening, not some “mates-rates” arrangement. Students need to be conscious of end-date and intermediate dates when work submission is expected. Given the need to be self-motivated and active between meetings, I say to students they cannot play the undergraduate game of leaving everything to the last—not fair to them, nor to me—and likely to fail; hence intermediate hand-ins. I have not required weekly hand-ins of summaries, but that could be a useful strategy to show evidence of regular work during semester—say, each week, articles listed and summarised for their relevance to the topic.

Mentor guidance—kinds of project methodologies

Thirteen projects were empirical in some form, collecting data using methodologies that conformed to the institution’s human ethics protocols restricting undergraduate research from using surveys and interviews. Visual and autoethnographic methods provided unobtrusive data.

Table 1: Typology of Methods Used

Methodological approach	n
Extended essay	9
Field-work	1
Visual	4
Historical document analysis	2
Literature review	1
Online search	1
Autoethnography	1
Group autoethnography	3
Total	22

The line between outputs during the project and subsequent work has become blurry as Shellito et al.’s (2010) tenth principle “provide continued mentorship” advocated. Since this has developed organically over time, through postgraduate training, employment contacts, or other

interactions, sometimes conference papers or other possibilities emerge later after finishing. This parallels Leeming’s (2018) remark: “I’m most excited about building a community where we rely on each other, can provide comfort and support during stressful times and a sense of belonging and purpose always.”

To frame student engagement, I suggest that to do a subject like this they must be self-starters, and take the initiative, acting on suggestions to do or read something. Defensively, there is no student right for mentoring—it is between us as academic and student by agreement and consent. Students need to know it is very costly on staff in terms of time and energy, and see what incredible kindness and value they are being given. For me the specific topic has to be explicitly agreed between us—student buy-in, but also a subject that can be interesting for staff and something worth working at. Sometimes students do not have a specific topic in mind, at other times they have a topic they wish to pursue. Several have wanted a Reading Subject on a topic I am working on, or we together find something that they are keen to explore and write up.

In matching a student to a suitable topic of inquiry, filters include checking whether a student is not strong academically. Although high previous marks are not a requirement sufficient motivation must be detected beyond primary interest in finding a convenient subject. Students without a track record of getting things in on time, or not having demonstrated an attitude or practice of finding and learning new things, is a real risk for this kind of mentor-supervision. It would be possible to put in a huge amount of effort—and hours—only to have a non-complete or a failing result. Hence the assertion of qualities such as persistence, reporting in regularly, or taking a hint to read a reference supplied.

Research outputs: excelling at individual projects

A feature of this project has been, subsequent to the first iteration, an increasing focus on the possibility of research outputs being achieved through the projects. This has been a reflection of teacher awareness of several things: the high quality of the students, the high motivation of the students, the dual win-win of any research output completions benefiting both students and academic staff member. Further, the time and effort given to students relative to demands on outputs and research productivity, pointed to the value of sustaining the academic mutuality for the mentoring provided to encourage students and grow their confidence.

Morales, Grineski and Collins (2017, p. 1) observe that, “Little attention has been paid to understanding faculty–student productivity via undergraduate research from the faculty member’s perspective.” Although this is only one part of mentoring, it connects to Shellito et al.’s (2010) point that “Part of being a good mentor is... providing opportunities that will challenge [students] but not overwhelm them.”

Table 2: Co-authoring Research Outputs

Type of co-authored outputs	n
Conference poster	2
Conference paper	10
International Conference paper	3
Internship	1
Refereed Journal article	2
Refereed Journal article under review	1
Total	19

This is a continuing process, with further potential outputs under journal review. Although the pattern varies, with several individual projects not resulting in research outputs, particularly in the essay-type projects, the average outputs has been approximately one per subject instance.

Because I actively locate references for students and suggest ways of writing, I position us as co-writers; this can be a bonus to them and facilitate their work on the topic since finding resources in databases is often a late skill students acquire. As we talk about reference tools and search skills, and interpreting articles found, I will commonly discuss producing a conference paper or article manuscript if that seems relevant. Since that is a bigger piece of writing, and at a higher level, my offer is always to actively participate in the writing and preparation so that encourages and draws the student along at a stronger level of engagement—aiming to be challenging but not overwhelming. Regular meetings allow many minor adjustments and sharing of information and clarification of ideas.

Refining mentor-supervisor expectations

In many ways, managing expectations is the functional equivalent within mentoring that classroom management is in larger group cohorts. For example, accommodating diversity, recognising responding to different reactions both positive and difficulties in encouraging students' different needs and concerns. This has been an interesting recapitulation of previous learning described above, but finding mentoring working differently in these individual BA projects in a relatively isolated regional campus. The consistency in this series of student mentoring relationships has been in the value of the regular extent of contact, sometimes weekly, sometimes two-weekly, depending on the preferences and needs of the students. Sometimes the arrangement to meet next comes from the academic, but at other times from the student, regularly checking progress and the need for discussion against elapsed time and weeks available before necessary completion and submission.

University of Kansas' Center for Undergraduate Research (2019) lists six features “for effective undergraduate research mentoring” that provide a background for the reflections raised here.

1. Establish clear expectations.
2. Make the steps of the research process explicit.
3. Teach students resilience.
4. Incorporate routines checks for understanding.
5. Foster increasing independence.
6. Address professional development.

One example of refining expectations has revolved around up-front discussion of subject equivalence to other BA subjects. This translates to 4000-4500 words or word equivalents, depending on the assessment, to be on par with other BA subjects. These have been mostly written projects, but one that could be called Industry Based Learning (IBL) or fieldwork/internship simply submitted a shorter report for the sponsor confirming the substantial work achieved. Students do not often ask about amount of referencing, but since it is like two or more 2000-word essays, I suggest when asked that the referencing amount should correspond.

Students will need to meet with their supervisor regularly. However, an hour with an individual student is a very different student ratio than a class of 30 students. Despite our best intentions that this can be for a briefer time to protect staff working time, meetings tend to be longer than they ideally should be, since exploring ideas with students is a complex process. In one semester I supervised 4 students in one semester as a group—each working on an agreed topic but meeting weekly or fortnightly to discuss common themes of literature, drafting etc. As a supervisor, initiating when we are next going to meet, is a necessary call, but highly-organised students are often on top of that kind of question. Another refinement process in between meetings, is to

email newly published articles that come through my inbox to students, or relevant articles and references I see when I am doing my own work.

In terms of producing writing, one method I find useful in structuring the project is to say to students I want to receive a third of their work (say, 1000-1500 words) by week 4 for comment and feedback. Then another block by week 7 or 8 and—negotiable with each student individually—then moving to a draft of the whole piece—we set dates. I read and give feedback on those first pieces of writing. Setting intermediate dates for actually producing written work (not just more reading or deferring) is important to flush out procrastination (personal style, indecision, employment busyness or getting bogged down). This also helps divide the project into more manageable pieces of writing, and focussing students on reading and writing to that sub-goal. Depending on the student and the initial purpose, co-writing can emerge at any stage.

Another method for the first weeks is to require students to find and summarise 3-4 articles each week that are relevant to the topic, and hand the correctly referenced items in for discussion. Side note: such written outputs document for the student, for the supervisor, and for any third party looking into the arrangement that work is being done and a process is being followed. Another strategy that may work in with these other methods is for the student to write up their thinking and questions about the topic, handing that to the supervisor for response. The need is for students to be actively working; the supervisor's contribution is to confirm, offer suggestions, re-direct, bring in a theory or an idea that may unlock the question, problem, etc. Different projects and students will make one method or mix of methods more useful.

Conclusion

Developing this individual undergraduate BA student project at a regional university campus built on previous experience, as noted at the start. It was interesting in reiterating earlier principles of encouragement and respect along with the need for structure and scaffolding to make each project achievable. With greater experience as a teacher and researcher it has been a real insight to reflect on the potential upside for individual students, staff member and university in producing research outputs. This, not as a discipline or neoliberal demand, but as an opportunity to customise learning and effort for committed and energetic students in order to extend their learning. This contributes to higher quality education in regional spaces (Malhoit, 2005).

Enabling this to happen on a regional campus without the broader culture, resources and staffing of larger city campuses, also suggests ways forward for learning opportunities. Clearly individual mentoring is time-consuming and even with passionate teacher motivation, requires balancing rewards of success, interest and potential outputs. In contrast to previous experiences the individualised interactions appeared pivotal to student learning in the present context. Choosing this subject was not just a matter of course as a capstone subject completing the degree. Thus, the mentoring implicit in supervising projects—in this case at undergraduate level—can be distinguished in the stronger mix of the supervisory function with coaching and conversational engagement on a regular basis with students. All were treated in adult, individualised ways that responded to their specific questions, passed on tips about details of writing references and accessing material for their work, and took an interest in careers and future pathways.

References

- Allen, D. (2015). Learning autoethnography: A review of autoethnography: Understanding qualitative research. *The Qualitative Report*, 20(2), 33-35.
- Baker, M., Cluett, E., Ireland, L., Reading, S., & Rourke, S. (2014). Supervising undergraduate research: A collective approach utilising groupwork and peer support. *Nurse Education Today*, 34(4), 637-642. [doi:10.1016/j.nedt.2013.05.006](https://doi.org/10.1016/j.nedt.2013.05.006)

- Baldwin, R. (2016). *The great convergence*. Cambridge, MA: Harvard University Press.
- Burns E. (2009). Research mentoring academic staff in a new degree environment. *Journal of Educational Leadership, Policy & Practice*, 24(2), 68-80.
- Cantelli, G. (2018). Mentoring undergraduates: All you need to know to help your summer student. *ASCB International Forum for Biology: Careers*.
<https://www.ascb.org/careers/mentoring-undergraduates-need-know-help-summer-student/>.
- Chang, H. (2008). *Autoethnography as method*. Walnut Creek, CA: Left Coast Press.
- Chang, H., Ngunjiri, F., & Hernandez, K. (2013). *Collaborative autoethnography*. Walnut Creek, CA: Left Coast Press.
- Chatterji, M. (1998). Tertiary education and economic growth. *Regional Studies*, 32(4), 349-354.
[doi:10.1080/00343409850117807](https://doi.org/10.1080/00343409850117807)
- Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the literature between 1990 and 2007. *Research in Higher Education*, 50(6), 525-545. [doi: 10.1007/s11162-009-9130-2](https://doi.org/10.1007/s11162-009-9130-2)
- Devlin, M., & McKay, J. (2019). Teaching regional students from low socioeconomic backgrounds: Key success factors in Australian higher education. *Australian and International Journal of Rural Education*, 29(3), 1-17.
- Gershenfeld, S. (2014). A review of undergraduate mentoring programs. *Review of Educational Research*, 84(3), 365-391. [doi:10.3102/0034654313520512](https://doi.org/10.3102/0034654313520512)
- Hattie, J. (2003). Teachers make a difference: what is the research evidence? Paper to ACER Annual Conference (pp. 1-18), Melbourne, Vic.
https://research.acer.edu.au/cgi/viewcontent.cgi?article=1003&context=research_conference_2003
- Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London: Routledge.
- Holland, C. (2009). *Workplace Mentoring: a literature review*. Wellington, New Zealand. Work and Education Research & Development Services. <https://ako.ac.nz/assets/Knowledge-centre/RHPF-n33-Professional-development-for-mentors-in-industry/957c864e6b/Workplace-Mentoring-a-literature-review.pdf>
- Hoop, K. (2009). Students' lived experiences as text in teaching the sociological imagination. *Teaching Sociology*, 37(1), 47-60. [doi:10.1177/0092055X0903700105](https://doi.org/10.1177/0092055X0903700105)
- Jacobi, M. (1991). Mentoring and undergraduate academic success: A literature review. *Review of Educational Research*, 61(4), 505-532. [doi:10.3102/00346543061004505](https://doi.org/10.3102/00346543061004505)
- Krishna, L., Toh, Y., Mason, S., & Kanesvaran, R. (2019). Mentoring stages: A study of undergraduate mentoring in palliative medicine in Singapore. *PLOS ONE*, 14(4), e0214643. [doi:10.1371/journal.pone.0214643](https://doi.org/10.1371/journal.pone.0214643)
- Law, K., Guthrie, D., Beaver, B., Johnson, S., Parys, J., & Toms, O. (2019). Faculty and staff perceptions of undergraduate mentoring. *Mentoring & Tutoring: Partnership in Learning*, 27(4), 399-415. [doi:10.1080/13611267.2019.1649918](https://doi.org/10.1080/13611267.2019.1649918)
- Leeming, J. (2018, 1 August). How to mentor undergraduates as a postgraduate, and why it's important. *Naturejobs*. <http://blogs.nature.com/naturejobs/2018/06/13/how-to-mentor-undergrads-and-why-its-important/>
- Long, E., Fish, J., Kuhn, L., & Sowders, J. (2010). Mentoring undergraduates: Professors strategically guiding the next generation of professionals. *Michigan Family Review*, 14(1), 11-27. [doi:10.3998/mfr.4919087.0014.104](https://doi.org/10.3998/mfr.4919087.0014.104)
- Lopatto, D. (2010). Undergraduate research as a high-impact student experience. *Peer Review*, 12(2), 27-30.

- Malhoit, G. (2005). Providing rural students with a high quality education: The rural perspective on the concept of educational adequacy (pp. 1-26). Raleigh, NC: The Rural School and Community Trust.
- Morales, D., Grineski, S., & Collins, T. (2017). Increasing research productivity in undergraduate research experiences: Exploring predictors of collaborative faculty–student publications. *CBE-Life Sciences Education*, 16(Art 42), 1-9.
- Murphy, P. (2015). *Universities and innovation economies*. Farnham, UK: Ashgate.
- Nowell, L., Norris, J., Mrklas, K., & White, D. (2017). A literature review of mentorship programs in academic nursing. *Journal of Professional Learning*, 33(5), 334-344.
[doi:10.1016/j.profnurs.2017.02.007](https://doi.org/10.1016/j.profnurs.2017.02.007)
- Peseta, T. (2005). *Learning and becoming in academic development: An autoethnographic inquiry*. (PhD). University of Sydney, Sydney, NSW.
- Peseta, T. (2007). Troubling our desires for research and writing within the academic development project. *International Journal for Academic Development*, 12(1), 15-23.
[doi:10.1080/13601440701217253](https://doi.org/10.1080/13601440701217253)
- Reed-Danahay, D. (Ed.) (1997). *Auto-ethnography: Rewriting the self and the social*. New York: Berg.
- Rowley, J., & Slack, F. (2004). What is the future for undergraduate dissertations? *Education & Training*, 46(4), 176-181. [doi:10.1108/00400910410543964](https://doi.org/10.1108/00400910410543964)
- Ruiz-Alfonso, Z., & León, J. (2016). The role of passion in education: A systematic review. *Educational Research Review*, 19, 173–188. doi:10.1016/j.edurev.2016.09.001.
- Shanahan, J., Ackley-Holbrook, E., Hall, E., Stewart, K., & Walkington, H. (2015). Ten salient practices of undergraduate research mentors: A review of the literature. 23(5), 359-376.
[doi:10.1080/13611267.2015.1126162](https://doi.org/10.1080/13611267.2015.1126162)
- Shellito, C., Shea, K., Weissmann, G., Mueller-Solger, A., & Davis, W. (2001). Successful mentoring of undergraduate researchers. *Journal of College Science Teaching*, 30(7), 460-464.
- Trow, Martin A. (2005). Reflections on the transition from elite to mass to universal access: Forms and phases of higher education in modern societies since WWII. Working Paper <https://escholarship.org/uc/item/96p3s213>. doi:10.1007/978-1-4020-4012-2_13
- University of Kansas Center for Undergraduate Research. (2019). Six tips for effective undergraduate research mentoring. <https://ugresearch.ku.edu/mentor/tips-for-effective-mentoring>
- Willis, E. M., & Burns, E. A. (2011). The empty shops project: Developing rural student’s sociological insight. *Teaching Sociology*, 39(1), 27-41. [doi:10.1177/0092055X10390648](https://doi.org/10.1177/0092055X10390648)
- Yahanpath, N., Pacheco, P., & Burns, E. (2018). Discussing a balanced scorecard for one local New Zealand church. *Journal of Management, Spirituality & Religion*, 15(1), 1-19.
[doi:10.1080/14766086.2017.1338612](https://doi.org/10.1080/14766086.2017.1338612)