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‘It feels more important than other classes I have done’: an ‘authentic’ undergraduate research experience in sociology

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Abstract

This article reports on research into the development, teaching and student experiences of a one-semester subject designed to provide an undergraduate research experience in the social sciences. The subject was offered for the first time in 2009 in a large sociology program at a major research-intensive Australian university. Our findings are significant because they confirm findings from research with students engaged in undergraduate research experiences from the science, technology, engineering and medical disciplines, and add a much-needed social science perspective to the important international conversation on undergraduate research in higher education. We conclude by suggesting that whether or not a subject of this kind is successful in motivating students to pursue research careers, it is clearly successful in raising levels of research literacy.

Keywords
undergraduate research experience, research literacy, transition to independent research, student research, student-research conference

Full Text:

We feel like we have achieved a lot more than just completing another assignment … This class produced three different pieces of research and it feels more important than other classes I have done.
(Steffi)

Introduction

This article reports on research into student experiences of a semester subject designed to provide an undergraduate research experience in the social sciences. The subject was designed to provide an authentic undergraduate research experience (Grabowski, Healy, and Brindley 2008; Harvey and Thompson 2009). The unit, Contemporary Issues in Sociological
Research, was offered for the first time in 2009 in a large sociology program at a major Australian research-intensive university. There is a significant and growing body of literature reporting on innovation in curriculum and pedagogy in undergraduate research experiences, and assessments of their benefits to students, particularly in making the transition to research. (Seymour et al. 2004; Lopatto 2004, 2007; Robertson and Blackler 2006; European Molecular Biology Organisation 2007). This literature emanates from the science, technology, engineering and medicine disciplines with, by comparison, very little research documenting comparable developments in the humanities, arts and social sciences. Crude but indicative measures of this disciplinary imbalance are the spread of disciplines in a Council on Undergraduate Research publication, which comprises 34 substantive research- and practice-based chapters on undergraduate research-oriented curriculum and pedagogy. Excluding chapters with a generic or institutional-wide focus on issues such as research ethics and extending research infrastructure to undergraduate students, of the remaining 24 chapters, merely two come from disciplines (education and critical thinking in the liberal arts) outside the science, technology, engineering and medicine fields (Karukstis and Elgren 2007). Similarly, an Academy of Higher Education compendium of undergraduate research case studies includes only three social science examples. (Jenkins, Healy, and Zetter 2007, 16–17).

Following a brief survey of research on undergraduate research experiences, the article sets out three key constituents of an authentic undergraduate research experience as described in the literature, primarily from science, technology, engineering and medicine. These three elements informed the design of the subject discussed here. We then present qualitative data gathered from the sociology students completing the research subject on their experiences related to these key elements. The article concludes with some reflections on research and teaching cultures outside the science, technology, engineering and medicine disciplines with respect to the prospects for including authentic research experience as part of undergraduate education in the social sciences.

**Undergraduate research**

While undergraduates have always engaged in research activities, the recent history of undergraduate research as an *explicit* topic in the undergraduate curriculum is seen to date from the Boyer Commission’s report on undergraduate education (1998) in the United States.
Some, though, consider the issue to have origins as early as the 1960s political and higher education debates around the distorting impact on teaching of the US ‘grant university’ (Sample 1972; Bauer and Bennett 2003). In the United Kingdom, undergraduate research experience has been taken up in programs such as the Undergraduate Research Opportunities Program in the period following the report of the National Committee of Inquiry into Higher Education (1997) as a form of experiential learning for the development of transferable skills (Goodlad 1998). In Australia, considerations of undergraduate research as a component of undergraduate curricula differ from developments elsewhere, due to the continued emphasis on the honours year as marking both the ‘capstone’ (Boyer Commission 1998, 27–28) moment in undergraduate study and the transition to research (Kiley, Moyes, and Clayton 2009).

Nonetheless, Australian developments since the 1990s, particularly those centred on the teaching-research nexus (Myatt 2009), have increasingly drawn on curriculum initiatives and research into the undergraduate research experience as a more or less integrated component of curriculum for all students (as distinct from it being a discrete, additional year, as in the Australian honours system). Several Australian institutions have well-established offerings of this kind. The Summer Research School for undergraduates at the Australian National University is a lead, but not the only, example (Australian National University, nd). In Australia, as elsewhere, there appears to be wider adoption of undergraduate research in science, technology, engineering and medicine undergraduate curricula than in those of the humanities, arts and social sciences.

Exposure to an undergraduate research experience in the first year in some cases (Grabowski, Healy, and Brindley 2008) has been linked with a range of favourable educational and personal/career outcomes. These include retention (Nagda et al. 1998); alumni reporting satisfaction with the undergraduate experience (Bauer and Bennett 2003); and positive motivation to pursue careers in research (Lopatto 2004, 2007; Myatt 2009), particularly for students who are members of minority groups under-represented in research programs (Alexander, Foertsch, and Daffinrud 1998). However, notwithstanding the generally positive claims made for and accounts given of undergraduate research experiences, some sceptical voices should be noted. For some commentators, claims for pedagogical innovation in undergraduate research experiences are not substantiated: do all programs claiming to offer undergraduate research experiences differ significantly from standard coursework offerings.
which might include a major research essay? (Reisberg 1998; Bauer and Bennett 2003). For other commentators, the claims made for the educational and other outcomes of students undertaking an undergraduate research experience are not substantiated by sufficiently rigorous research (Bauer and Bennett 2003). Others raise doubts as to the appropriateness of this form of learning for all students (Chmielewski and Stapleton 2009). As Bauer and Bennett suggest, formal assessment of the learning outcomes attained through an undergraduate research experience ‘are just beginning’ (2003, 212), and more research is needed to assess outcomes against claims.

While there is scepticism as to whether some undergraduate research experiences offer anything other than ‘glorified homework’ (Reisberg 1998), a subset of undergraduate research experience warrants attention. The so-called *authentic* undergraduate research experience is marked by features which endeavour to bring the experience of undergraduate students as close as possible to the experience of ‘real’ or ‘authentic’ research. The key constituent elements of an authentic experience are usefully summarised by Harvey and Thompson (2009):

1. A faculty-led project engages one or more students as intellectual colleagues.
2. Students understand the primary literature in the field, the significance and rationale for the project, as well as research methods, data analysis and interpretation of results.
3. Students conduct research directed toward presentation and publication, are capable of presenting the work at regional or national meetings of disciplinary societies, and can answer questions from conference participants. (adapted from Harvey and Thompson 2009, 13).

In the development of this sociology undergraduate research subject we drew on a range of published literature on undergraduate research experience. We sought to incorporate these key elements into the unit design. The relevant features of our subject design and pedagogy, embodying these, are:

1. Students joined us as intellectual colleagues in appropriately framed research on a topic in which we were engaged: post-separation parenting arrangements of Australian families.
2. Students were provided with tuition, support and mentoring in understanding the primary literature in the field, the significance and rationale for the project, as well as tuition in research methods, data analysis and interpretation of results.
3. Students conducted research directed toward presentation and publication in the form of a specifically convened research mini-conference in the final week of semester and the preparation of 5000 word research papers ‘as for’ publication.

**Methodology**
The unit commenced with 22 enrolments, of which 15 students successfully completed all assessment. A straw poll of withdrawing students indicated the major reason for withdrawal was timetable clashes, and was not related to the nature of work in the subject. The data reported comes from two questionnaires completed anonymously by students enrolled in this research unit in weeks 1 (16 responses) and 12 (11 responses) of a 13-week semester; and 8 qualitative interviews with students from the group of 15 who completed the subject. The questionnaires were directed to two broad research questions, and this article reports on data related to one of these. In this part of the research, we solicited student responses to the specific features of the subject design, its assessment and teaching, which correspond to those identified by Harvey and Thompson (2009) as constitutive of an authentic undergraduate research experience.

The interviews were concerned primarily with exploring students’ experience of ‘real’ or authentic research in comparison with their other university coursework experiences. Interviews also took up issues flagged by the students themselves in the questionnaires. The main student-initiated concerns were with the dynamic of team-based work, their criticisms of the subject as ‘disorganised’ and not being prepared for the work expected of them. This data is not dealt with in this article, which focuses on the students’ experience of those elements of the unit that are constitutive of an authentic undergraduate research experience. In relation to these elements, our participants are overwhelmingly positive; and our findings do not reflect the ambivalence about research or the sense that ‘research is not for everyone’ reported by other researchers (Howitt et al. 2010). The interviews were conducted by Dunja Licina, who worked with all students in the computer laboratory sessions (weeks 3 to 6), but played no role in their assessment. Interviews were audio-taped, transcribed and coded for analysis. All interview participants are referred to by pseudonyms.

The size of the sample is a key limitation of this research. However, given the scarcity of research on authentic undergraduate research experiences in the social sciences, the findings – limited and provisional though they are – make a useful and overdue contribution to the
international conversation on research-based education for undergraduates, a conversation which, to date, has been dominated by voices from the science, technology, engineering and medicine disciplines.

A further possible limitation to be borne in mind is that, even where interview data is collected by a researcher not involved in the assessment of the students’ work, as is the case here, there may be pressure felt by students to report positively on their experiences. However, in the case of this cohort, this is balanced by their forthrightness in speaking critically of those aspects of the experience they found challenging or unsatisfactory. Some students spoke of the difficult dynamics entailed in teamwork, some felt the subject was ‘disorganised’, and some expressed being initially ‘overwhelmed’ by the expectations of them.

A faculty-led project engages one or more students as intellectual colleagues
The 15 students who completed this subject researched post-separation parenting in Australian families, with a focus on the nexus between time and the quality of parent-child relationships and the factors (such as residency/custody arrangements, labour market participation and gender of parent) that impact on both time and quality of this relationship. This is a field in which Cuthbert and Arunachalam have been working collaboratively since 2007. We attempted to establish a framework for teaching in which students and teaching staff worked as co-investigators. Inquiry in this field lends itself to quantitative sociological research, through analysis of nationally representative longitudinal databases, in this case the Household Income Labour Dynamic Analysis data; to qualitative sociological research, in this case semi-structured interviews with young adults; and to legislative, policy and media analysis, in which the students engaged as required by their team’s research questions. Further, the issue of post-separation parenting has considerable policy ‘heat’ and topicality in Australia, as elsewhere. The Australian Family Law Act was reformed controversially in 2006 with the introduction of a rebuttable presumption of shared parental responsibility (Commonwealth of Australia 2006). Then, in early 2009, partly in response to several filicide cases involving separated parents and their children (ABC News 2009), the federal government announced a review of this legislative reform, with particular reference to shared parental responsibility and family violence.
The legislative and social context was mapped for students in the introductory lecture, supported by selected literature. Framing the issue in this way enabled students to see the high level of non evidence-based argument on the matter of post-separation parenting (Smythe 2009), and the contribution to policy to be made by social science research in the Australian context. For us as teachers, assembling this literature and introducing students to it was not onerous due to our close familiarity with the material and our own primary relationship to it as researchers. It may be noted that, in terms of workload for teaching staff, this subject (relative to the educational experiences as reported by the students and the quality of their work) represented less of a demand on time than was anticipated.

Teaching in this mode allowed us to occupy the much-vaulted ‘teaching-research’ nexus in ways not possible in other teaching. The subject required a different sort of work from other undergraduate teaching in sociology. Relatively less staff time was spent in the often burdensome work of assessing several smaller pieces of work; and more time was spent in the comparatively more rewarding work of working directly with students, and reading and commenting on draft material. Classes operated like research team meetings or consultations. Team teaching allowed staff to work with students on areas of their expertise: quantitative work was overseen by Arunachalam, assisted by Licina; and qualitative work was overseen by Cuthbert. As outlined below, students responded very positively to this mode of working with teaching staff.

‘This is what university should have been like from the start’: student responses to the collaboration with staff in research

Confirming findings from research on undergraduate research experiences in the sciences, technology, medicine and engineering disciplines (Lopatto 2004; Seymour et al. 2004; Myatt 2009), for the students engaged in this subject, the experience of working on components of an ongoing research project with academic staff proved very positive. The students felt empowered by being entrusted with work on a research project in which the academics were currently engaged:

[T]he fact that teachers were putting trust in us to be able to do this made me feel good, made me feel more confident. [One teacher] was telling us we can do it and we felt good about it. It certainly helped. I knew she knew that we can do it and we certainly made it. (Tami)
Collaboration with staff on a real research project was the major determinant of the ‘authenticity’ in the educational and personal experiences of the students in this subject. While the word ‘authentic’ is not used by the students, other recurring words with related meanings are used by them throughout the questionnaires and interviews. Chief amongst these words is ‘meaningful’, as applied to the nature of the relationship between staff and students, the nature of the work, its public presentation and relevance to the world ‘outside’ the classroom, the bonds which formed between the students and between students and staff working as co-researchers, and the personal and educational transformation experienced by the students themselves in the course of the 13-week semester. Other recurring words are: ‘important’ (relating to the ‘real’ research in which the students were engaged), ‘real’ and ‘adult’. All convey the sense the students had of being engaged in something that ‘relates to outside [i.e. beyond the classroom] issues’ (Stella). Stella’s sense of the work in this subject being ‘so much more’ than just another series of essays because it might ‘make a difference’ is echoed directly by Beulah:

[It] feels like I have done something that works and counts – not just an essay – it is going to be out there and make a difference. It will get published and make a difference to outsiders which is one good thing about this work. (Beulah, emphasis added)

For Steffi, the staff-student collaboration in research was ‘meaningful.’ For this final-year student, the dynamic between staff and students is ‘what university should have been like from the start’:

Our relationship with lecturers was not just superficial. It was meaningful… Our relationship with lecturers and tutor was more informal and less hierarchical… This is what university should have been like from the start. (Steffi)

Confirming Steffi’s views, Jacob speaks of how the experience of working collaboratively with staff helped to ‘bridge the gap between the student and lecturer’:

They [the teachers] end up on the same level and the teachers are helpful and encourage the students to get through their research. (Jacob)

The comments of Eliza confirm the positive views of many students. For her the group effort clearly included teaching staff working alongside students:

The teachers were more approachable. The experience was something new. We were all working together, they were here to assist us. It was all one big group effort and teachers were also part of big effort. (Eliza)
For Stella, working ‘with’ the teaching staff opened a new space of inquiry and interaction; she felt that everyone, both students and teachers, were ‘in the same boat’ working toward a group goal:

I felt like there were no barriers between us. I could just say what I thought about the topic or an issue without feeling stupid for suggesting anything or asking a question. Everyone was in the same boat and we understood we were ok … There was no feeling of hierarchy and I could ask questions freely. (Stella).

John valued the combination of independence and intimacy in the differently configured relationship with teaching staff:

Working with my lecturers was different. It was different to being in a lecture and listening to them speak and be removed from us students. We don’t have the same connection in the large lecture like we do in a research environment like this. This was much more intimate but at the same time we were not getting closely monitored by the lecturers. They let us do our work but were always there when needed. (John)

In the questionnaires, students write enthusiastically about the teacher-student dynamic, especially as compared with the more hierarchical dynamic with the teacher as ‘figurehead’ that they are more familiar with in their undergraduate studies:

They [teaching staff] are more like mentors rather than teachers. It is a good way to do it. (second questionnaire)

I feel more at their level, they are advisors rather than just teachers. (second questionnaire)

Teaching staff appear more approachable as opposed to more [of a] figurehead at the front of the lecture theatre (second questionnaire)

As well as being more personally rewarding and engaging, the less hierarchical dynamic between teachers and students enabled, for this student, a greater understanding of university teachers as researchers and of the kind of work they do:

I now have a greater understanding of the kind of work they [the teaching staff] do in research and can now relate more. (second questionnaire).

We label this outcome, which is evinced in a number of interviews and questionnaire responses, increased research literacy, and identify this as a major educational outcome of this subject. Our research confirms the findings of other researchers that, even in the context of a research-intensive university, research literacy is not inevitable (Jenkins, Healy, and Zetter 2007). As responses to the questionnaire in the first week indicate, the students’ self-
rated baseline knowledge of research, its processes and objectives, was either ‘low’ or ‘very low’. Over the semester, students came to understand the nature of research and gained insight into the research mission of the university and the research roles of academic staff, whom they had previously viewed only as ‘teachers’.

**Students understand the primary literature in the field, the significance and rationale for the project, as well as research methods, data analysis and interpretation of results**

The syllabus and assessment were designed to introduce students to the primary literature in the field of post-separation parenting and children’s outcomes, and relevant literature on the 2006 amendments to the Family Law Act. The students were introduced expeditiously to the literature in the field and to the techniques of critical literature reviewing, through a study of a review essay by an Australian sociologist working the field (Smythe 2009). Smythe’s essay assisted the students’ rapid immersion in the Australian literature; and, as Smythe critically identifies gaps in the evidence base on post-separation parenting, it identified scope for further research. Following the analysis of Smythe, students, organised into three research teams, completed their first assessment task in week 2, which was a critical analysis of research published on the standard variants of post-separation parenting arrangements by a team led by Smythe (2004). Literature searching and analysis continued throughout the semester as each team settled on its particular research focus.

**Quantitative research methods, data analysis and interpretation of results**

In the first part of the syllabus, students were introduced to the Household Income Labour Dynamic Analysis (HILDA) database. HILDA is a nationally representative longitudinal survey offering rich data on the dynamics of family relationships, parenting and attitudes of young people and adults amongst other issues. The students were introduced to the questionnaire used in Wave 7 of HILDA to become familiar with the richness and depth of data. In week 2 of this section, students were given a small subset of data, customised by teaching staff, which included a limited number of variables on family issues from the family formation section of the survey. The key information included in the subset for resident and non-resident children/parents comprised: age and sex of youngest (non-) resident children; child/parent frequency of day and night visits; geographical distance between households of the parents; parental financial support; educational qualification of parents; employment
status; religious orientation; and relationship satisfaction of resident parent with non-resident parent. Students used SPSS statistical software for data analysis.

As reported in other undergraduate research experiences (Myatt 2009), this represented a new experience for many students who had not used SPSS before. Students were trained to identify the dependent and independent variables within the subset, how to set data filters, and run simple frequency tables to identify the variables’ distribution within the sample. This was followed by instruction in the analysis of the frequencies of their chosen variables. Once they had their variables defined, and frequencies analysed, students were introduced to bivariate analysis. This involved obtaining and analysing cross tabulations and chi-square statistics derived from SPSS. Members of each of the three teams focused on two or three different variables. All the members of each team then pooled all the variables analysed into a research report.

**Qualitative research methods, data analysis and interpretation of results**
The next section of the syllabus was originally intended to give students the opportunity to explore in greater depth issues arising from the quantitative analysis of data from post-separated families in HILDA, through a series of interviews with young adults (18–24 years) with experience of their parents’ separation or divorce. However, we were unsuccessful in getting approval from the university’s human ethics committee, as it considered work with individuals from separated families as ‘high risk’ for novice researchers. This necessitated a re-direction of the inquiry to intact families and a focus on the time-quality nexus in parent-child relationships question, which has dominated recent Australian research on post-separation families. This emerged as a highly original line of inquiry, with a major finding being that there is significant continuity between the experiences of children in intact families and post-separated families. For example, our students found that ‘weekend’ dads are not produced solely by divorce, but by other factors such as labour market participation. However, this change in research direction represented an unplanned and highly ‘authentic’ research experience and was for some students initially unsettling, contributing to the criticism of subject as ‘disorganised.’

The students, again working in small teams, developed research inquiries around the gender of parent and child, time spent in the parent-child relationship and the quality of that relationship, and embarked on interviews with young adults to investigate this issue. A total
of 18 qualitative in-depth semi-structured interviews, of between one and two hours duration, were completed by the class. Findings from interviews formed the basis of the final assessment of the unit: presentations at the mini-conference and jointly authored written reports of 5000 words length.

‘Real’ research: ‘not just something abstract’

For the majority of students in this subject unit, who had previously completed a subject in research methods (compulsory for all sociology majors), some of the skills acquired in this subject were not entirely new, while others (such as SPSS) were new to them. However, the processes of reviewing literature, analysing quantitative data and undertaking qualitative social research in the context of a ‘real’ research project appear to have given these experiences and the research methods themselves greater meaning, more concreteness and less abstraction than the same tasks in the context of a ‘methods’ subject. This finding confirms research on the difficulties in teaching compulsory ‘methods’ subjects, which are a feature of many sociology programs and other social science undergraduate programs (Artaraz 2007). This, combined with negative student perceptions of methods courses, risks creating a ‘methods ghetto’ (Payne, Lyon, and Anderson 1989, 262). The comments of participants point to the experiences of research provided in this subject as far superior to their research experiences in other subjects, whether in the compulsory methods subject or a research project in another undergraduate subject. Stella’s comment is indicative of student responses: ‘I got a huge understanding of what is really going on in research work. It makes sense now and I see the difference it can make – it’s not just something abstract’ (Stella). She compares this experience with her research methods experience:

I have never done a subject quite like this. I have done research methods … before this and it was one huge assignment based on data already there. We did not go out and do our own research. We discussed the existing literature but it was nothing like this [subject]. This [subject] gave me the taste of what it’s like to be a researcher. (Stella)

For Eliza the research experience in this subject compared favourably with the experience in all her other subjects in her final year. It was her ‘favourite’ because the class got to ‘do something’ other than the usual reading and writing of essays:

This subject in research is my favourite this year because we get to do something as opposed to read and write an essay … It is also challenging and it pushed me to think in different ways
that I did not before – fantastic experience. It gives you an idea what it’s likely to be in the future should you pursue research. (Eliza, emphasis added)

For Rose, the focus on original research (‘we have created our own study’) signals both the ‘consolidation’ of all her undergraduate learning as in a capstone experience (Boyer Commission, 1998, 27–8), and a quantum leap in a new direction. Rose registers her awareness of having made the significant transition from being primarily a ‘reader’ to becoming a ‘writer’:

The research consolidated all my undergraduate learning and experiences. It was much different to other subjects. In all other subjects I was using journals and studies to write analytical essays about those studies. Now we have created our own study and have our own results. I have gone the whole circle from the reader to the writer. (Rose)

The literature on the transition to research from coursework figures the central transition for students as the shift from being primarily a consumer of knowledge to becoming one of its producers (Lovitts 2005; Gardner 2008, 328). As evinced by attrition rates and long completion times in doctoral programs, this transition is often a fraught and difficult process. A number of the students in this undergraduate research subject indicated, like Rose, a critical awareness of the crucial epistemological and subjective shift to becoming a producer (as distinct from a consumer) of knowledge. Findings from this study tend to confirm other research which points to the potential benefits of an undergraduate research experience in the transition to graduate research (Myatt 2009).

Students conduct research directed toward presentation and publication

Harvey and Thompson (2008) posit ‘regional or national meetings of disciplinary societies’ as the benchmark for the public presentation of student work for an authentic undergraduate research experience. In the case of this subject, a mini-conference was convened for the purposes of student presentation. The audience included researchers from within the faculty and elsewhere in the university and others, such as a member of the Family Court of Australia judiciary, who are stakeholders in this research. This event, scheduled in the final week, reproduced some conditions of an externally convened event but kept the timing within the teaching period.

Students were advised at the commencement of the subject that their final, major assessment task would be the public presentation of their research findings. The mini-conference was of
two hours duration, and comprised a brief introduction by one of the teaching staff, half-hour presentations supported by PowerPoint slides by each of the three research teams, and an open session in which the student researchers took questions from the audience about their work. Following this event, students had a week in which to write up their final reports in the form of articles of 5000 words ‘as for’ submission to a targeted journal. The process of ‘marking’ these final reports took the form of staff reading the papers as reviewers for a scholarly journal. Feedback was provided in the form of a reader’s report, indicating what changes might be required to bring the piece to the standard required for publication. While the formal assessment for the unit was completed at this point, all students were subsequently invited to attend a workshop approximately two weeks after the end of the semester to go through the ‘readers’ reports’ on their papers. All students attended this workshop, and each research team elected to undertake the revisions suggested.

As reported by participants, and confirming the findings of Garde-Hansen and Calvert (2007), the prospect of a ‘public’ presentation of their research findings focused the minds of the students in ways that other – even major assessments – do not. As the response of this student to the prospect of the research mini-conference reveals, the event was viewed with mixture of excitement and anxiety: ‘Daunting! Yet positive because [it is] something different’ (questionnaire response, week 1). Students revealed degrees of anxiety mixed with positive excitement about the mini-conference. John’s comments are more expansive:

I was also not very confident about the presentation we had to do and especially about the research [mini-conference] … I did not think our research would be taken seriously. It might not be professional enough. I was scared of being scrutinised by experienced professionals. But once we presented at the mini-conference I felt so proud. We received a lot of praise from everyone. I felt proud especially when the Family Court Judge told us how meaningful our research was, and that he can use it in his everyday work. Someone had acknowledged how hard we worked. It was not just another university assignment. (John, emphasis added)

The mini-conference emerged for many students as a very positive aspect of the subject. For all students interviewed, the public presentation of their research findings to an audience, which included other researchers and a judge from the Family Court of Australia, contributed to their experience of research as meaningful and important:

Presentation at the [mini-conference] was meaningful … We put in a lot of work and we did well but did not realize that it would become so important. We feel like we have achieved a
lot more than just completing another assignment. I also got confidence in my ability and work and take it a lot more seriously. (Steffi, emphasis added)

For Steffi, the work and effort entailed in completing the research and presenting it at the mini-conference are matched by the *meaningfulness* and *importance* of the event. For her, the mini-conference was important for the opportunity for her and her team to present their work; and she shares that sense of achievement with the whole class: ‘This class produced three different pieces of research and it feels more important than other classes I have done’ (Steffi, emphasis added).

Echoing Steffi’s sense of achievement, increased confidence and a heightened capacity for work, Stella also uses the word ‘meaningful’ in relation to the mini-conference:

> For the mini-conference we wanted to ‘wow’ [the audience]. I never thought of this quite as just another subject or essays – it was so much more – it relates to outside issues, it’s *meaningful* and we were all inspired and wanted to do it … to make a difference. We had to step it up – it was not just another subject assignment. (Stella)

The public presentation of the research marked an important difference between this unit and other subjects. Stella’s comment that ‘it was not just another subject assignment’ is echoed, almost verbatim, by other students. Both the ‘real’ research on an important topic and the public presentation of findings contribute to the sense that this subject took up ‘outside issues’, and that the work produced might ‘make a difference.’ The students’ sense of the meaningfulness of the research prompted them to ‘step it up,’ to raise the level and quality of their work on par with their perception of its importance through its public presentation.

> My view of the overall research process is now different. Before I did this project I had no idea of the work involved – nobody told me what was involved. I always enjoyed sociology, now I know what the process involves. Well, at least have an idea of what it could be like working as a real researcher. It is a lot of work but it is very rewarding! The idea of being able to find things on our own and help people in the wider community, as well. If I do research that can help people out there then I know I have done a good job. (John)

John’s excitement here is not only with the research he has done and the contribution it can make, but also with the idea of research itself, of which none of his earlier studies in sociology had given him any ‘idea.’

With respect to the outcomes of the student research, it can be reported that revised research papers from the three teams emerged over a four-to-six-week period following the final
feedback session. These papers, while much advanced on their quality at the point of submission, were not of a consistently publishable standard, notwithstanding the originality of the data and the innovative line of inquiry into the time-quality nexus in parent-child relationships in intact families. The shortfall in all three papers was a lack of theoretical sophistication in handling the data and in embedding the case studies in the wider literature. One semester of intensive research, and additional weeks of time given to the task by students for no additional credit, proved insufficient for the three teams of third-year students to produce a final publishable outcome, although their research generated original results. An authentic undergraduate research experience in sociology, with a publishable outcome by student researchers would, on the basis of the experiences outlined here, require two semesters’ work, with significantly more structured time for writing and revision, and degree credit for students for this work, than this subject allowed.

**Conclusion**

This article goes some way in addressing the relative scarcity of work from the humanities, arts and social sciences in the growing body of literature on undergraduate research. We contribute a rare perspective from sociology to the educationally and strategically important international conversation on the role of research within undergraduate curricula and pedagogy generally, and within the social sciences in particular. Our experience of teaching this subject, and the experiences of our students reported in this article, confirms other work that demonstrates that undergraduate research experiences offer the potential to ‘rejuvenate’ undergraduate education, as advocated by the Boyer Commission (1998) over a decade ago. Our findings also point to the possibility, also signalled in other research (Lopatto 2004, 2007; Myatt, 2009) that undergraduate research may also have the potential to enhance and strengthen the research and innovation missions of the university in alignment with current policy and funding imperatives, particularly in Australia. Our students indicate the importance of this authentic research experience to them in heightening their understanding of research, and in motivating them to consider a future in research as a possible career path. Whether the latter is borne out, time and further research will tell.

It is clear that this subject has played a part in increasing the research literacy of a group of undergraduates with low or very low understanding of research at the commencement of the subject. This outcome of our research is not generally recognised in other work on
undergraduate research experiences. Research literacy – understanding what research is, what
it can achieve and the difference it can make (to the formulation of good social policy and
legislation, as in this case) – is not only a pre-condition for a research career but for the
advocacy of research in communities beyond the university, whether government, industry or
the wider community. It is on these communities that researchers ultimately rely for their
support.

Our research indicates that, even in a research-intensive university, students do not simply
arrive at this research literacy. For many students in the social sciences, the disjuncture
between what their teachers teach them and what their teachers might also be engaged in as
researchers may persist for the duration of their studies. As John explains, even as a final year
sociology student, he had no idea about what was entailed in sociological research because
‘nobody told me.’ He now knows that sociological research is about ‘finding things’ out
which can ‘help people in the wider community’. Academics, who are researchers as well as
teachers, need to share this knowledge and this experience with their students. Our
experience in joining our students in this sociological research, and our research into their
experiences of this, demonstrate that this can be done as effectively in the social sciences –
and no doubt in the humanities and creative arts – as it can in science, technology,
engineering and medicine.

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