Secondary school students' ideas of learning and schooling.

A case-study of an intensive, experiential middle-years program.

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Abstract

This article reports on an empirical study of a curriculum innovation at a Victorian government secondary school. The aim of the study was to explore students' ideas of learning and the purposes of schooling, and how these were influenced by participation in an intensive, experiential middle-years program. Group interviews were held with students who were currently completing the program, recent graduates of the program, and senior students who had completed the program in past years. Photo-elicitation was used during interviews to encourage storytelling, multiple perspectives, and use of metaphor. Although somewhat predictable responses were initially given to abstract questions such as: “what is learning?” and “what is the purpose of school?”, student narratives supported by visual imagery and metaphor reveal more subtle, rich and diverse interpretations. These include deeper and more transformative conceptions of learning, a critical questioning of the purpose of schooling, as well as efforts to interpret and navigate the, at times dissonant, pedagogical environments they inhabit within schooling. Multiple layerings, ambivalences and incoherences in student narratives are explored with references to neoliberal discourses of education and notions of pedagogy arising from complexity theory.

Introduction

Teachers and educational researchers fill vast numbers of hours (and journal pages) speculating, theorising and debating about the nature of learning and the purposes of schools (although, regrettably, the latter usually loses out to the former). Rarely is it acknowledged that the students in our schools might have their own ideas on these topics, and that these might *mean something*. With these considerations in mind, this article summarises an empirical study, conducted in 2013, into how students understand and navigate the different learning environments they encounter at secondary school. Student narratives about leaning and the purpose of schooling are read using the ideas of “discursive dissonance” and disequilibrium, as well as concepts from complexity theory. From this analysis, implications are drawn regarding the potentials and pitfalls of middle-years pedagogy, as well as educational research into middle-years programs.

The motivation for the study emerged from the author's experience within a Victorian Government secondary school, teaching in both traditional classroom learning environments and a special Year 9 program - “The Explore Program”. Within a total school population of approximately 1300 (Years 7 to 12), the Year 9 cohort numbers approximately 200. Students in this year level are 14-15 years of age. Pseudonyms are used for the program name, and all participants, to preserve anonymity. Over three years teaching in the Explore program it became clear that students perceived Explore and their mainstream learning environment (“mainstream”) as fundamentally different worlds. It seemed important to attempt to gain an understanding of the nature of the students' experience of these two worlds, and how they might manage the potential dissonances between them.

The research questions motivating the study were as follows: In the context of an urban, high-performing government secondary school - What are student ideas of learning and the purposes of schooling, and are these ideas influenced by participation in an intensive Year 9 program employing “middle-years” pedagogy? If so, how? In particular, the focus was on how students' experiences and ideas were given meaning through the use of metaphor and narrative.

Middle-schooling and the middle-years

Academic and policy discourses regarding the middle-years emerged in Australia in the 1970s and 1980s, and are grounded in the notion that this age-group possesses specific characteristics which warrant particular kinds of attention with respect their schooling (Prosser, 2008, p. 154). The middle-years are conceived psychologically, as containing particular developmental processes relating to identity and socio-emotional needs; and sociologically, as a time of potential alienation or re-engagement through particular social and institutional arrangements (McLeod, 2012, pp. 44–45). Correspondingly, advocacy is made for separate institutional structures, “middle-schools”, and specific kinds of pedagogy and curriculum, which are responsive and appropriate to these characteristics (Chadbourne, 2001, p. 2). In Australia, the middle-years are often seen as a “problem-time”. Many schools, in response, have incorporated curriculum reforms for this stage of schooling (Dinham & Rowe, 2009; Yates & Holt, 2009, p. 28). The implementation of the Explore Program may be read as an example of such a reform.

As part of the school’s compulsory Year 9 program, students participate in Explore for one full school term (approximately 10 weeks), and complete mainstream schooling for the remaining three terms. During their term in Explore, each cohort of approximately 50 students works intensively with the three dedicated Explore teachers, spending 24 out of their 30 weekly school sessions within the program. Explore’s pedagogy is grounded in experiential learning (Dewey, 1997; Kolb, 2014), constructivist and social constructivist theories of learning (Gordon, 2009) and inquiry learning (e.g. Hoepper & McDonald, 2004). Although the theoretical jargon from these frameworks is not used on a day-to-day basis by the teaching staff, they manifest in the program as an emphasis on:

- learning through direct experience, through extended, weekly, student-directed excursions (“trails”); contact with experts, games, role-plays and simulations;

- the integration of oral and written reflective activity into the weekly curriculum, including an end-of-term student-led conference with parents and teachers;
- connecting learning to students everyday lives; eliciting student knowledge, opinions and perspectives on themes and issues; often through discussion-based lessons;
- community engagement with adult workplaces, local primary schools and other organisations;
- team-based and collaborative activities involving both short-term and sustained student groupings;

The program also foregrounds attention to diversity, well-being and individual development via:

- community and team-building activities;
- extensive opportunities for student choice and self-regulation;
- explicitly recognising and working with the diversity of each student group;
- the teaching of communication skills, social awareness and other “life-skills”.

Overall there is pedagogical emphasis on “process over content”; students set their own learning goals, monitor their progress and make structured reflections upon their learning. These focuses are consistent with Australian understandings “middle-years” pedagogy (Chadbourne, 2001).

Whilst there are many advocates of middle-schooling and its associated pedagogies, the notion has encountered various criticisms (Prosser, 2008), including lamentations about a lack of “hard-evidence” (in particular, randomised-control-trials) to support claims regarding the positive effects of middle-years programs (Dinham & Rowe, 2009). Whilst a critical reception of middle schooling is necessary, this dissatisfaction must be read in the context of broader managerial and neoliberal discourses of education. These discourses prioritise certain narrow notions of “achievement” against other potentially important outcomes, which may be less susceptible to simple operationalisation and statistical measurement. neoliberal conceptions of schooling are driven by

economic imperatives, and structured around concerns for global competitiveness and human capital (Brown, 2015; Thomson, Lingard, & Wrigley, 2012), rather than the public purposes of education (Cranston, Kimber, Mulford, Reid, & Keating, 2010). Institutionally, this manifests as a concern with standardised testing (Polesel, Dulfer, & Turnbull, 2012) and standardised curricula (Gough, 2010). These concerns and imperatives run counter to the distinctively democratic, holistic and open-ended qualities of middle-years pedagogy. The study undertaken was deliberately qualitative in nature, and sought to generate a rich picture of the students' experiences in Explore, rather than a narrow focus on quantifiable outcomes.

Importantly, however, it must not be assumed that the ideals and processes of middle-schooling are necessarily liberatory, or positioned neatly outside/against the influence of neoliberal transformations of schooling (Connell, 2013). McLeod (2012, pp. 46–48) warns of how the construction of the middle-years as essentially risky, transitional and disruptive, and the corresponding “redemptive” narratives of middle-schooling, may inscribe “a normative model of linear development” as a form of bio-politics, by which “normative youth identities are invented and regulated”. The middle-years as a “liminal time”, and middle-schooling, thus represent a highly complex and contested field within education.

A similar study of the implementation of a middle-years program by Yaes & Holt (2009) illustrates the complex and potentially conflicted spaces which middle-years programs inhabit within educational policy discourses. In this case (as with Explore), teachers sought to do things differently, within the context of a whole-school culture which remained mostly unaltered. This potentially generates friction between two contrasting sets of expectations. As the authors note: “If middle school is to be “done differently”, schools...need to find ways to bridging the different sets of expectations” (Yates & Holt, 2009, p. 39).

Following these themes, the present study asked: What, exactly, *is* the different kind of meaning that Explore has for students? How do students interpret, narrate and integrate this meaning, as a

potentially marginal element amongst more dominant meanings set by the whole-school culture and pedagogy? How do students manage two such potentially dissonant sets of expectations?

Student ideas of learning

It is reasonable to suppose that students will model, to an extent, their ideas of *what learning is* on the learning contexts and activities they experience during everyday schooling. From this assumption, we may ask what occurs when students experience a significant change in their daily learning activities, such as when they participate in an intensive, alternative program such as Explore.

Extending foundational work by Saljo (1979), Marton, Dall'Alba and Beaty (1993) used a phenomenographic approach (Barnard, McCosker, & Gerber, 1999) to identify conceptions of learning amongst tertiary students. Phenomenography aims to build a systematic description of the “qualitatively different ways in which people experience, conceptualize, realize and understand various aspects of phenomena” (Ornek, 2008, p. 2). The authors identified six conceptualisations of learning:

- A) increase of knowledge;
- B) memorising;
- C) acquisition of facts, procedures;
- D) abstraction of meaning;
- E) an interpretive process aimed at the understanding of reality;
- F) changing as a person (Marton et al., 1993, pp. 277, 283).

A large-scale study of European secondary students (Cano & Cardelle-Elawar, 2004) confirmed these categories. The authors conducted a statistical analysis, grouping together Types A, B and C as being concerned with the reproduction of knowledge (“reproductive conceptions”); and Types D, E and F as being concerned with the construction of meaning (“constructive” conceptions). A significant association was found between “reproductive” conceptions and students in junior- and middle-school; and between “constructive” conceptions and students in senior school (Cano & Cardelle-Elawar, 2004, p. 176).

The current study did not seek to replicate a full phenomenographic description, nor to confirm or deny the existence of regular changes in conceptions of learning over time. The focus was on exploring the narrative and metaphoric content of student descriptions, and exploring potential relationships to the different learning environments of Explore and mainstream. The phenomenographic categories identified in the literature provided useful interpretive tools in this process.

Student ideas of the purposes of schooling

Labaree provides a conceptualisation of three broad purposes of schooling, which are described according to their orientation towards public or private aims:

- *Democratic equality* - preparing young people to be active and competent citizens (public);
- *Social efficiency* – preparing young people to be competent and productive workers (private purposes, leading to a public good - the economy);
- *Social mobility* – providing credentials to advantage people in the competition for desirable social positions (private) (Labaree, cited in Cranston et al., 2010, pp. 183–4).

In their review of the impact of neoliberal reforms on Australian schooling, Cranston et al. (2010) argue that policy shifts over the last four decades towards marketisation and managerialism have led to a substantial shift away from public, and towards private, purposes of education. In their conclusion, the authors pose the following questions about the broader impacts of policy decisions:

"What messages do our young take away from their school experiences as to their understandings of the purposes of schooling? How do these messages shape their understandings of, and the priority they might give, to being an engaged and contributing citizen in their community? Or do they see school as mainly about providing a competitive advantage for them as individuals and getting a job at the expense of a more collective and inclusive future?" (Cranston et al., 2010, p. 193)

These questions situate the concern, in the present study, with students' own conceptions of the purposes of schooling.

Rich illustrations of the ways in which students make sense of their experience of schooling emerge in qualitative studies, such as those by McLeod and Yates (2006), as they track the interactions of class, gender, school culture and individual agency in the shaping of young peoples' identities. Whilst students' views on the purposes of schooling appear in indirect forms in such ethnographic accounts, few academic studies explicitly foreground students' conceptions of the purposes of schooling. The collection of studies that do so (Lau & Nicholls, 1992; Nicholls, Patashnick, & Nolen, 1985; Thorkildsen, 1988) have used survey instruments to track statistical associations between students' perceived purposes of schooling and other variables such as perceived causes of success and school satisfaction. The survey instruments in these studies are based upon four categories of purposes: "wealth and status", "commitment to society", "understanding the world" and "achievement motivation." The basis of the choice of the categories is not made clear by the authors, and it appears that students themselves were not involved in the process of generating them (see Nicholls et al., 1985, pp. 683–4). This does not invalidate the statistical results, but raises the question of whether the categories sufficiently cover the range of student ideas about the purpose of schooling. Thus, whilst emphasising the importance of considering student perspectives, these studies simultaneously erase the students' voice. The present study sought to avoid this kind of closure.

Methodology

The study took the methodological form of a qualitative case-study (Bogdan & Biklen, 1992, p. 62) which, although encountering criticisms from positivist positions, is ideal for providing useful context-dependent knowledge (Flyvbjerg, 2006; Stake, 1978) and illustrations of the social world which approximate the natural, lived experiences of most readers (Stake, 1978). Broadly, the research approach sat within an interpretivist theoretical paradigm, insofar as it “emphasises the meanings individual actors give to social interactions, and the use of symbols, such as language, in the creation of that meaning” (Walter, 2009, p. 21). Correspondingly, this study did not seek to assess the accuracy or validity of student ideas, but to trace how these ideas are constructed, communicated and given meaning in the context of a particular curriculum reform – the Explore Program. An important theoretical assumption was that children are viewed “...as beings able to express opinions and make judgements about particular reforms, and in so doing offering unique insights into the everyday life of schools” (Blackmore et al., 2011, p. 3).

The primary source of data for this study was a series of small-group student interviews, focused on eliciting the meaning students made of their experiences (Ortiz, 2003, p. 36). The group interview model was selected to provide both richness of data, and efficiency (Barbour & Schostak, 2004, p. 46; Travers, 2009, p. 314). A semi-structured interview schedule was used, allowing for a focus on key research constructs (ideas of learning, purposes of schooling), and also for probing, elaboration and the exploration of productive tangents (Opie, 2004, p. 118). Five major questions were discussed:

- How does learning happen in the Explore Program?
- How does learning happen in mainstream classes?
- How would you define “learning”?
- What is the purpose of the Explore Program?
- What is the purpose of school, as a whole?

Purposive, maximum variation sampling (Ortiz, 2003, p. 38) was used to ensure a diversity of viewpoints, which is standard for group interviews (Barbour & Schostak, 2004, p. 43). Three categories of students were recruited: current Explore students (Year 9, 6 participants); recent Explore graduates, currently participating in mainstream school (Year 9, 9 participants); and past graduates in Year 11 (4 participants) and Year 12 (3 participants). The selection of the three student groups was made to illustrate potentially “critical moments” in the students' experience: immersion in the program, transition back to traditional schooling, and immersion in traditional schooling. The eventual pool of participants (22 students) consisted of a relatively even gender mix, and also included students from different ethnic, cultural and linguistic sections of the school population.

Photo-elicitation was used to enrich the group interview process. As a visual methodology (Rose, 2005) photo-elicitation can work to reduce interviewee shyness or reticence (Thomson & Gunter, 2007, p. 334), induce richer content through building rapport, provide a springboard for interviewer questioning, enable participants in group situations to compare and contrast, and also may allow for “hidden” or “unconscious” narratives to arise (Meo, 2010, p. 155). Whereas focus-groups can tend towards consensus due to the social nature of the process (Barbour & Schostak, 2004, p. 43), “...the familiarity of the photograph and its domesticity supports multiple readings and perspectives, and legitimates interpretation from diverse points of view” (Thomson & Gunter, 2007, p. 334). In addition, metaphor appears to be central to human thought and understanding (Lakoff, 1986), and previous studies note metaphorical elements in conceptions of learning (Marton et al., 1993). Visual stimuli thus may contribute rich metaphorical content, and therefore support participants to articulate ideas existing in partial or implicit form.

A generic set of 75 full-colour, visual images, measuring 170mm x 125mm each, (St Luke's Innovative Resources, 2007) were offered as stimuli during the group interviews. The picture cards depict, photographically, various aspects of the human and natural world, and are relatively benign.

Twice in each interview students were asked to sort through the cards and select one or more which represented their experience, or would help them tell a story regarding a particular question.

[Image 1: Interview room and picture cards]

As Rose (2005, p. 89) states "Visual images do not just emanate meaning in some kind of vacuum...Meaning is made with them, from them, against them, by particular people in particular places. Their audiences are fundamental to their effects." A wide variety of images were chosen by students to aid their descriptions; notably, at times, the same image was used to convey quite different meanings by different students. Students made use of the images in both literal and metaphoric forms, and at times introduced their own, original metaphors. On occasion, tension emerged between the meaning made of an image by a student, and other meanings that image seemed to evoke. Examples will be given in the analysis below (images are reproduced here in black and white, with permission of St Luke's Innovative Resources).

Framing a reading of student voice

This study brings into discourse students' ideas of learning and schooling. Attending to the dynamics of power and representation in the creation of research knowledge calls on us to problematise the notion of “student voice” (Fielding, 2007). Whilst the student voice “may need to be heard...the cautionary tale is to avoid essentializing that speaking position;” the operation of representing student voice always involves the potential violence of speaking for others (McLeod, 2011, pp. 183, 185). Constructed in the context of clear differentials in power, such as research interviews, student voice as represented in academic discourse cannot be assumed to be authentic, nor pure (Blackmore et al., 2011, p. 3).

My presence as an adult authority figure and (in the case of the Year 11 and Year 12 students) ex-teacher has to be taken into account in the reading of the material. The existence of significant positive and negative commentary about both mainstream learning and the Explore Program demonstrates that, to some extent, students did not feel overly obliged to “talk up” or “talk down” their school experiences. However, social desirability effects are especially influential in group interview contexts (Travers, 2009, p. 314). It is clearly plausible that, given my explicit concern and history with Explore, students could have made interpretations about my attachments to the program in their choices to air certain grievances, or to air them in a certain manner.

These considerations reinforce the sense that the research data cannot be considered simply as a neutral condensation of a set of unified, coherent and pre-existing student opinions (Thomson & Gunter, 2007, pp. 229–230). Frequently, students produced accounts of great poetry, elegance and clarity. However, the interview transcripts also contain examples of uncertainty, hesitation, struggle, ambiguity and tension. For example, one Year 9 student remarked that the way of learning in Explore didn't work for him, that it was “meaningless” and “not as important as mainstream” - “I prefer the other way of learning”. The same student, later, exhorted that “the whole Year 9 should do it [Explore]...For the whole year...not just one term!” Beyond mere

methodological concern, it will be argued that the dynamics of coherence and incoherence in student voice provide some of the key insights in relation to the aims of the research.

Results and Discussion

It is difficult to capture here, in print, the sometimes poetic synergy and tension which emerged from the combination of student talk and the images chosen during the interviews (indicated *in italics*, where relevant). A few particularly rich examples will be chosen for more extensive discussion. Images are reproduced with permission of St Luke's Innovative Resources.

Within mainstream school, students encountered a variety of new ideas and challenges, illustrated by the repeated choice of an image of a *busy marketplace*. Students chose images of a *roller-coaster ride* and *farm work* to support their descriptions of experiencing various states including enjoyment, stress, ease and difficulty. The learning goals laid down for students are clearly defined, providing a welcome sense of direction (*train tracks*), although not always seen as meaningful (*a dog chasing a ball*). Learning was at times felt to be closed and restricted (*barbed wire*). Students report a fast-paced and cyclical experience of learning, a heavy workload, switching rapidly from topic to topic, with a pressure to memorise materials for tests and examinations. Key social and emotional factors included a perceived pressure to conform amongst the middle-years students (*a row of telephone booths, a boy looking in a mirror*); a mixed relationship to teachers, at times supportive and close (*abseiling harness*), at others unequal; and learning as a solitary and sometimes daunting endeavour (*a lone farmer on a horizon, a girl reading alone on a lawn, a ladybird adrift on a large leaf floating on a pond*). There was a mixture of frustration, acceptance and adaptation to structures clearly beyond their control.

[3rd party image removed]

[Image 2: A Boy Looking in a Mirror]

In regards to the Explore Program, students identified the importance of learning outside, in the open (*a row of telephone booths, a roller-coaster, sunset*) and through direct experience. Hands-on

activities (*man working in metal workshop*) and the immediate relevance and the application of skills learned in the program, were commonly noted. Students valued the ongoing practice of personal reflection and inquiry (also connected to the image of a *boy looking in a mirror*), a heightened sense of voice, and the ability to ask and pursue their own questions. A sense of freedom, choice and openness, was commonly identified. Notably, at times this was experienced as empowering and, at others, disconcerting. Key social and emotional factors of learning in Explore included a heightened sense of enjoyment (*man wake-surfing, roller-coaster, ferris-wheel*) and relaxation (*sunset*); but also unpredictability, interest, excitement and hard work. Relationships with teachers were generally close and egalitarian. Students identified within the program an appreciation of individual diversity in the capabilities and learning preferences of students (*set of candles with flames alight*); and a complex set of relationships with other students including new friendships but also various forms of conflict. Overall, the emotional and social features of learning in Explore evoke a sense of newness and change. The “rules of the game” are temporarily suspended and a space is created which is variously exciting, unsettling, empowering and accepting.

Discursive dissonance, disequilibrium and complexity

With mainstream, you have to colour inside the lines and be inside this specific range where every teacher wants you to be at. But whereas in Explore, it was... you could colour outside the lines and be more creative...

Steph:

Notwithstanding the diversity of experiences that students have within Explore and mainstream, what emerged was a picture of two distinct and contrasting worlds - in terms of learning activities, space and place, levels of freedom and independence, relationships with teachers and peers, emotional experiences, workloads and work-cycles. In some cases, this differentiation is expressed implicitly; in others the two learning environments are literally “on different tracks” (*train tracks*). Indeed, the environments are seen as *so different* that two students argued emphatically that it would be *unjust* to compare the two. The relationship between these two worlds is not one of

simple, binary opposition. However, the student comments clearly reveal a level of incompatibility amongst the core assumptions regarding the role of the learner and the processes and purposes of learning.

In this sense “mainstream” and “Explore” can be understood as embodying two incommensurable educational discourses, where “discourse” “refers to groups of statements that structure the way a thing is thought, and to the way we act on the basis of that thinking” (Rose, 2005, p. 79). As read by the students, mainstream school expresses aspects of neoliberal discourses of education in its focus on grades, memorising knowledge and the cycle of testing. Explore, as an example of middle-years pedagogical discourses, expresses a very different set of priorities, grounded in “utopian hopes of personal and social transformation ... reflected in a greater focus on alternative pedagogies and ways of being than on developmental problems” (McLeod, 2012, p. 48). As noted in the case-study of Yates and Holt (2009), the co-existence of such contrasting discourses opens the potential for friction in the school-lives of students.

The transition from Explore back to mainstream provides a context to examine this dissonance. Although some students found the move back to mainstream easy, the change held potentially unsettling and difficult challenges. During Explore, students were not only exposed to a different way of “doing” school – some found their beliefs about school significantly altered. One student introduced the metaphor of “shredding”:

[3rd party image removed]

[Image 3: Shredded paper]

Sean: *...because it [Explore] shreds the ideas of what normal school is, or any ideas that you had before, it makes you reconsider them in a different way...*

For another student, the difficulty of transition stemmed from the stark contrast in learning environments, moving from a place where “you had a choice”, to having “no room to move”.

Unaided by any picture cards, this student developed the metaphor of surfing to communicate his experience of returning to mainstream and having it “all thrown at you”.

*I don't know how to say it ... OK. It's like mini-waves, in Explore, getting bigger,
Bruce: and you learn how to surf properly, but then it's just like a tidal wave back to,
back to...[mainstream].*

The ideas of “shredding” and the “tidal wave” evoke the sense of unease that can result as students attempt to work within and between the dissonant discourses of their school lives.

“Disequilibrium” describes a state of unease or discomfort arising from the encounter of the learner with a problem, challenge or context for which their current set of emotional and intellectual resources are not entirely adequate (Joyce, 1984, p. 27). A range of different theories of learning propose that disequilibrium is a necessary condition for significant learning and change (Joyce, 1984). From the place of disequilibrium, learners are forced to move “beyond themselves” in order to find a new place of stability.

Narratives of disequilibrium appear in various forms in the student accounts – both as discursive dissonance, and from the experience of Explore itself. For one Year 9 student the mainstream “way of learning” was “easier for me because they basically direct you”, compared to having to “choose your own road or direction” in Explore which was much more difficult. He employed the image of a skateboarder in mid-air, completing an acrobatic trick, to express his sense of “not being as stable” and not being able to “move as freely” within Explore. This particular use of the picture was notable, as it seems to run directly counter to a sense of serene mastery that the picture evokes:

[3rd party image removed]

[Image 4: Skateboarder]

This tension between the two levels of reading directs our attention towards the complexity and ambivalence amongst the students' responses to the central role of freedom and independence in the pedagogy of Explore. It is this moment of weightlessness, the discomforting feeling of negotiating the space between familiar structures of learning and new, uncertain spaces of freedom, that encapsulates the notion of “disequilibrium.”

The opening of spaces for movement, uncertainty and emergence is one of the core features that defines the Explore pedagogical environment. This contrasts to the structural features of mainstream, which were experienced by many students as closed and restricted. In the space it gives for students to set goals, attempt to solve their own problems, experience social conflicts, and endure various types of disequilibrium in the process, Explore builds a pedagogical environment consistent with the view of education as a “complex system” (Fenwick, Edwards, & Sawchuk, 2011). From this perspective the open, recursive, non-linear and emergent features of educational processes are seen as positive and necessary, rather than “problems” to be removed (Biesta, 2010). As a complex system, learning contexts exhibit features which are fundamentally unpredictable, complicating a simple, linear relationship emerging between educational “inputs” (teaching) and “outputs” (learning) (Biesta, 2010, p. 6). By emphasising “process” over “content” Explore embraces the notion that learning outcomes cannot be rigidly-defined or specified in advance, but must “emerge” over the course of the program. This holds for the learning of individuals, as well as for the “emergent” level of each cohort of Explore students, as a whole. “Inputs” are provided in the forms of the structures, processes and general goals of the program, but the specific “outputs” are left to emerge, discovered dynamically by the students and teaching staff via ongoing reflection.

The student experience of this emergent pedagogical environment manifested in the interview data as the dynamic tension between seeking/requiring support, and feeling overly constrained. Clear goals were a source of security (*an abselling harness, train tracks*), but at times were painfully constricting (*barbed wire*). Unquestioned short-term, achievement-based goals obscured much more “daunting” questions about the purpose of life after school; of simply *not-knowing* what to do

when one is *supposed to know*. Explore incorporates an appreciation that the disequilibrium of *not-knowing* (what to do? how to respond? where to go next?) is not an educational problem to be solved, but a core part of an irreducibly complex and fundamentally unpredictable educational process.

Whilst disequilibrium pursued as an end in itself may obstruct learning through provoking unnecessary anxiety (Berman & Davis-Berman, 2005), it appears to produce significant effects when it is sensitively framed, and room is given for systematic reflection. The way Explore graduates reflect upon their experiences of conflicts and tensions within their team work groups demonstrates the changes in perspective which can emerge from the unsettling experience of disequilibrium:

... the fights we had, he'd be mean to me, I'd be mean to him. It was fun. That
Bruce: *was the worst moment, but it's still better than the best moments that I probably*
had [in mainstream].

In retrospect, it was hilarious. At the time it was terrible, I hated it so much
because I didn't understand the people in my group...But it was quite fun even
Angelica: *when I was in that situation because, it was "fun" fighting and frustration,*
compared to doing a team project in mainstream school. It was... that would've
been boring and frustrating, but it was fun and frustrating. I can't really explain it.

Under the influence of neoliberalism, educational bureaucracies tend to retain historically outdated machine and factory models of schooling (Biesta, 2010, p. 5; Gough, 2010, p. 49), privileging "orderly and predictable processes culminating in stable output" (Gough, 2010, p. 51). Alternatively the appreciation of schooling as a complex system, "makes it possible to highlight the fact that individuals emerge in and through educational processes in unique and unpredictable ways. To the extent that education is not only about qualification...and socialisation..., but is also characterised by a concern for the "coming to presence" of unique, individual beings" (Biesta, 2010, p. 6). It is by providing structured spaces for disequilibrium that Explore enacts such an emergent pedagogy.

Conceptions of learning

Defining learning *in general* was, for many students, a difficult task, and not all responses fitted neatly into the categories identified in previous studies (Marton et al., 1993. See above.). The most frequent responses corresponded to type A - increasing knowledge. This included: “Expand your knowledge”, “attaining knowledge”, and “finding out something new”. These quantitative conceptions were presented by students across Year 9, 11 and 12. Two Year 9 students presented definitions emphasising the role of memory, consistent with type B - learning as memorising: “adding something to your brain that you'll remember” and “discover new things and remember them”. Type C – learning as applying, arose frequently, embodied in statements such as: “finding out new things that will be useful to me at some point in the future” (Year 11) or “experiencing something...that you can connect to something in real life” (Year 12). Attention to grasping meaning and understanding, characteristic of Type D, was evident in the response of one Year 9 student: “To understand the meaning of why things happen.” Type E is “getting perspective on things”, an interpretive process aimed at the understanding of reality. Two responses fell into this category. One Year 11 student described learning as “the acceptance of knowledge” and detailed how learning fundamentally depends on how willing people are to alter their beliefs in light of others' opinions. A Year 12 student expressed how new experiences are “linked in” to existing structures of the brain, which then influence thought:

... you experience a new thing, in a different way that you haven't seen before.

And that gets linked to that thing in your mind...And, you know, our brains work by

Phillip

linking, when we think of something we link back to a memory of that, or

something, some information about that. And...the more you experience, the more things you have to link back.

No explicit student definitions of learning clearly matched Type F – changing as a person.

Returning to the study of Cano & Cardelle-Elawar (2004), overall there was a greater number of

responses of the “reproductive” type, than there was of the “constructive” types. There was no clear pattern of conceptions according to year-level.

This analysis, at the very least, confirms the notion that students conceive of learning in diverse ways. It is interesting to consider the dominance of “reproductive” conceptions, especially in the context of student frustrations with a perceived cycle of acquiring knowledge, memorising and testing in mainstream school. But has involvement in the Explore program, with its focus on direct experience, dialogue and reflection, had any clear influence on assisting students to develop more nuanced ideas of learning? A number of factors suggest that this may be a plausible inference to make. In the case of Phillip's Type E conception (above), this description linked directly to his discussion of key memories from Explore (especially visiting the law-courts). These memories came to “define” for him certain concepts and knowledge, that provide “images in my mind for a whole lot of things.”

The influences of Explore on student ideas about learning also became apparent outside the specific discussion of “what is learning?”. As opposed to the difficulty of providing an *abstract* rendition of “what learning is”, students generally related *personally contextualised* stories and experiences of learning with ease. Even though no typical “Type F” conceptions of learning were given in the *abstract*, notions of “changing as a person,” learning about how you learn, “changing your perspective on things” were common in *personal* reflections on learning in Explore. Two Year 12 students related personal stories that illustrated their (fragmentary) conceptions of a highly *social* concept of learning. Employing the image of a glowing key in a lock, students located disjunctive moments of insight - “ooh moments...and you actually go 'ooh' (laughter)”; where everything “starts to click”.

[3rd party image removed]

[Image 5: Key in lock]

These moments were associated explicitly with *social* contexts of learning, “when someone just says something a bit differently, or they just add a bit more information.” In particular, they occurred outside formal teaching, during free-study sessions, when talking to unfamiliar people who may have “different ways of approaching things.” One student explicitly connected this process to how Explore “teaches you to talk to other people.”

These reflections suggest that Explore's pedagogical emphasis experiential learning, personal reflection, and increasing social connectedness can influence students' conceptions of learning - by sensitising students to processes of learning focused on constructing meaning and changing perspectives, as opposed to simply adding units of knowledge and rote memorisation. They also prompt methodological reflection, illuminating how posing abstract questions to students about learning reveals only a fraction of what is going on, missing layers of richness which emerge in the form of personal narrative and response to visual metaphor.

Student ideas of the purposes of schooling

The interview questions regarding the purpose of the Explore Program focused on what it was *designed* or *meant* to achieve. What emerged, alongside responses to this *abstract* question, was a rich series of reflective comments about the particular impact and meaning of the program *for students as individuals*. This result mirrors the abstract/personally-embedded distinction which emerged in students' conceptions of learning discussed above.

The most common (abstract) conceptions were given in terms of the development of skills and personal attributes. In the eyes of the students, Explore served to develop “life skills”, to “get you ready for life”, and “sets you up to be able to choose what you want to do in life”. It served to give students a “break” from the pressures of mainstream schooling, and provided generic “social skills” and “people skills” such as communication, “how to include people” and “team work”. Students also recognised the more immediate social purposes of Explore: to “meet new people” and “experience different styles of how people act”, and to “mix with other classes.”

Explore also served to nurture individuality and a sense of engagement with “the world”. Other students, such as Amy, noted a shift in perspectives about life possibilities:

Amy: *To show people that you don't have to just do what everyone else is doing in school. You can branch out into things that actually, really affect the world...*

For some students Explore was a time of social change, the effects of which still resonate after a number of years. Many students understood Explore as facilitating self-development, such as changes of identity, shaping and increasing self-knowledge (*a woman kneading dough*).

If the educational discourses of mainstream and Explore held such dissonance – how might we expect student experiences and memories from Explore to be re-interpreted and re-framed after returning to mainstream schooling for two more years? Comments from the Year 11 and 12 students illustrated the ways in which experiences of Explore had been integrated into their future approaches to schooling. Far from becoming erased or marginalised, these experiences have been integrated, in a conscious and creative fashion, into the students' approaches to mainstream school, and the rest of their lives.

Phillip *Yes, you definitely become more in tune to the way you learn, and see things...me personally, it taught me a lot about how I learn. And I was able to learn how I saw things before and how I see things now. And, I don't know, there were things that I could obtain in, from the difference. That allows me to, like, live now.*

The purposes of school as a *whole* also emerged in a mixture of generalised, abstract conceptions and personally-embedded narratives. School as a whole, without reference to Explore, was most commonly conceived as preparation for a career, aligning to the category of “wealth and status” (Nicholls et al., 1985). The purpose of school was to get “marks for University,” “to give you a better opportunity with jobs,” and to “prepare you for doing a job that will earn you money, so that you can keep surviving.” However, it was notable that conceptions were given which did not fit neatly into any of the categories used in the statistical studies.

Some students identified the process of becoming aware of personal attributes, or referenced aspects of social development, as well as aspects of “hidden curriculum” concerning obedience, authority and leadership in schools. Although attaining good grades in the final years of school also featured prominently for the Year 9 students, this was, somewhat surprisingly, not cited by any of the senior students as the explicit purpose of school. More generalised notions of the purpose of school were that it “sets us up for our future” or “preparing you for life.”

For some students, the question opened up unanswerable quandaries:

Amy *If you say " what's the purpose of school?" then it's kind of like " what's the purpose of life?"...I just mean if you try to answer what the purpose of school is, you say like - "to educate you for life". But then you are like "but why do you need to be educated for life?"*

In addition to students' statements which considered the purposes of Explore and mainstream separately, a number of student statements presented the two different learning environments as serving complementary purposes. In general, the purpose of mainstream was to teach you “maths and science and the basics”, “the calculated approach to everything...the facts,” “the knowledge that you might need in the future,” and to prove you're a “good worker”; whereas Explore provides “life-skills,” “lifelong skills” and “social skills” such as “confidence”, “how to talk to people, how to confront people...” Or, simply enough: “Explore makes you more happy and school is just for, like your job...” These and other examples suggest that the categorisations used in the statistical studies noted above vastly underestimate the richness and subtlety with which students conceive of the purposes of school – both official and unofficial.

Even given the sense that Explore and mainstream school provide different types of value, these different types of value were, nonetheless, mostly articulated in terms of “careers” and “jobs”.

Connell (2013, p. 104) states that "neoliberalism has a definite view of education, understanding it as human capital formation. It is the business of forming skills and attitudes needed by a

productive workforce - productive in the precise sense of producing an every-growing mass of profits for the market economy." The expressions of students thus lend weight to the concerns expressed by Cranston et al. (2010) about the decline of the public purposes of schooling under neoliberalism. The students comprehensively express purposes of school aligning with notions of social efficiency (economic, private) and social mobility (private). The rare examples which expressed a public purpose were specifically associated with the Explore Program, and not school as a whole. This seems to suggest that, between the competing educational discourses of Explore and mainstream, the private notions of education are dominant, and public notions are marginalised.

The limits of abstraction and coherence

Representations of student voice can not be naively considered as “pure” expressions of an “essential” student perspective (Fielding, 2007; McLeod, 2011). Indeed, the educational discourses of neoliberalism appear to “speak through” the students, both in their conceptions of learning and the purposes of schooling. This seems to substantiate concerns that neoliberalism, far from simply operating as an economic or political ideology, operates as a “rationality of government” which is productive of particular types of subjectivity (Brown, 2015).

However, other voices are also present, and it is clear that student experience is not simply determined by monolithic discursive structures. What is evident is neither a freely-choosing, fully self-conscious agent, nor an overly determined “discursive subject”, but a series of *lived* and *expressed* practices of navigating the two, a process of “embodied identities...shaped in a complex, contradictory, discursive and social context” (McLeod & Yates, 2006, p. 31).

The tension of this lived, embodied process shows up in the productive difference between the students' abstract, generalised conceptions of learning and schooling, and their personally-embedded narratives. At times these strands cohere, complement, and contradict each other. Whilst paradigmatically neoliberal discursive elements appear most readily in the abstract realm, they are exhibited less in the personal narratives. That is, *cognitive* constructions appear to be more subject to the discourses of neoliberalism and the social efficiency/mobility purposes of schooling than narratives of *direct, felt and remembered personal experience*. These narratives more frequently persist with resonances of unpredictable, emergent, evolving perspectives on the world, which escape simple notions of schooling as a “preparation for (economic) life”.

As Noted by Yates and Holt (2009, p. 35) student interpretations of schooling are “constructed...relative to a particular context and history rather than an inevitable association.” Students conceptions and understandings of their schooling thus are not simply determined by dominant, external factors, but are performed with regards to the entirety of their experience including marginal discourses, architectural and temporal arrangements and other implicit

messages from the pedagogical and curricular environment. What has been presented here is a weaving-together of such performances, which were rarely neat and flawless. As noted above, the arrangement of student data presented in this article presents an artifice of coherence. A truer investigation of the dynamics of student engagement with overlapping, incommensurable discourses would more closely attend to moments where students *failed* to achieve coherence – to experiences that escaped full signification, or appear only partially in expressions that were incomplete, incomprehensible or broken. In a preliminary attempt to follow this line of thought, a few examples of such narrative incoherence (Hyvärinen, 2010) will be examined here.

The struggle to narrate the “use” value of the two learning environments appeared in student narratives. You clearly “need” school-based knowledge for the future, but then there are “proper” skills that you “*actually* need”:

Mainstream, I think, teaches you knowledge, the information, but then Explore teaches you skills, proper skills... Lifelong skills and then mainstream teaches about the knowledge that you might need in your future. I guess if you are going to become a maths teacher or something. Explore teaches more about, daily life skills, skills that you need, actually need.

Leon:

This struggle to articulate divergent purposes within a consistent frame is evidence that a genuine reflective process is underway; and this process may lead to the challenging of unquestioned assumptions about what school is for. The presence of incoherence is, in fact, a trace of genuine reflective struggle, and thus signifies the possibility for the emergent of alternative narratives.

Other moments of not-quite-coherence were often signaled by laughter: For example when students articulate to a stranger (and to themselves?) that, somehow, the horrible fights they had with their team mates in Explore are now their most treasured memories; realising that in retrospect it was “absurd” or “hilarious”, but being unable to explain why. Or the moment one student began a hesitant narration of a shift in identity, subtly monitored and regulated by a peer:

Bruce: I used to be this ... I still kind of am, but I'm not as much ... but, I used to be this really, really loud, in-your-face person ...

Michelin: You still are... (general laughter)

OK well then... (laughs, pauses). Well I just ... I kind of learned how to tone it back

Bruce: and just not... and just kind of trust that someone else is going to do just as good a job as I would if I just took the helm.

School as “preparation for life” was a regularly repeated theme. The apparent coherence of this narrative, however, was punctured by a Year 11 student, who noted its perplexing implication:

Richard: Are you saying you don't really define now as "life"?...Why don't people count it as life? (General laughter).

This sharply reveals the discursive contradictions within which students negotiate their daily school experiences, and encapsulates a core tension in schooling between the present and the future.

Dewey famously argued that schooling should not be taken as merely “preparation for life”: “When preparation is made the controlling end, then the potentialities of the present are sacrificed to a suppositious future. When this happens, the actual preparation for the future is missed or distorted” (Dewey, 1997, p. 49). Although published 75 years ago, this message still very clearly underlines the importance of critically unpacking the purposes of education. The commentary of the students appears to suggest that the framework of learning within the Explore Program works with students' direct, lived experience, rather than against it in the service of a suppositious future. It is a concern for the “ 'coming to presence' of unique, individual beings” that characterises a learning environment which holds space for the emergent and irreducibly complex processes of human learning (Biesta, 2010).

Concluding remarks

This qualitative case-study posed the questions: What are student ideas of learning and the purposes of schooling? In particular, it explored how these ideas are related to participation in an alternative middle-years program. Overall, students reported contrasting experiences of learning between Explore and mainstream school, which embody incommensurable educational discourses. Student data illustrate the complex struggle of coping with the resulting dissonance, and the various ways in which students adapt and integrate their experiences. Disequilibrium, facilitated by structural aspects of Explore, is central to an account of the impact it has for students, and its capacity to disrupt dominant educational narratives. The framework of complexity was useful in theorising pedagogical structures which allow for unpredictability and emergence, and illustrating contrasts to traditional learning environments. Student conceptions of learning largely fitted simpler "reproductive" types identified in existing literature, rather than richer "constructive" conceptions. Explore and mainstream were perceived as having different, sometimes complementary purposes, largely framed in terms of future career outcomes. These results illustrate the contemporary dominance of narrow "private" notions of the purposes of schooling, and neoliberal policy priorities.

Whereas abstract and generalised statements about learning and schooling fitted more predictable patterns, student narratives embedded in personal experience, drawing from photo-elicitation, provided alternative insights. This highlights the importance of pedagogical spaces, such as those endorsed by some strands of middle-years pedagogy, which can open spaces for students to explore alternative narratives regarding the nature of learning and the purposes of schooling. The way students, researchers and images come together to form conversations is, in itself, a thoroughly emergent process. It forces us to ask: Which is more illustrative, and more valuable – students' abstracted, generalised conceptions of learning and schooling? Or the much more haphazard, but rich, flowing and colourful narratives they give of their personally embodied experiences? It obliges us to problematise notion of "evaluation" of middle-years projects, in the context of a contemporary focus on the statistical measurement. The subtle, slowly evolving

reflections of students show a sense of “impact” of participating in Explore that is highly diverse, uncertain, and emergent. At times the incoherence of student “voice” says as much as its coherence. These invaluable “outcomes” would no doubt be erased in any narrow search for the quantifiable “impacts” of a middle-years program.

These results have implications for research and evaluation concerning middle-years programs. Research methodologies which take the purposes of school and the outcomes of learning for granted misconstrue the nature of education, and do not acknowledge that learners, teachers and material learning environments constitute complex systems. A narrow focus on quantifiable outcomes risks neglecting the wide variety of subtle and unpredictable effects of the pedagogical environments students inhabit.

Bibliography

- Barbour, R., & Schostak, J. (2004). Interviewing and Focus Groups. In B. Somekh & C. Lewin, *Research Methods in the Social Sciences*. SAGE.
- Barnard, A., McCosker, H., & Gerber, R. (1999). Phenomenography: a qualitative research approach for exploring understanding in health care. *Qualitative Health Research*, 9(2), 212–226.
- Berman, D. S., & Davis-Berman, J. (2005). Positive Psychology and Outdoor Education. *Journal of Experiential Education*, 28(1), 17–24.
- Biesta, G. (2010). Five theses on complexity reduction and its politics. In D. Osberg & G. Biesta (Eds.), *Complexity theory and the politics of education* (pp. 5–14). Rotterdam: Sense Publishers.
- Blackmore, J., Aranda, George, Bateman, Debra, Cloonan, Anne, Dixon, Mary, Loughlin, Jill, & Senior, Kim. (2011). *Innovative Learning Environments through New Visual Methodologies*. Deakin University, Burwood. Retrieved from <http://www.learningspaces.edu.au/docs/learningspaces-visual-methodologies-report.pdf>
- Bogdan, R., & Biklen, S. K. (1992). *Qualitative research for education: an introduction to theory and methods*. Allyn and Bacon.
- Brown, W. (2015). *Undoing the demos: neoliberalism's stealth revolution* (First Edition). New York: Zone Books.
- Cano, F., & Cardelle-Elawar, M. (2004). An integrated analysis of secondary school students' conceptions and beliefs about learning. *European Journal of Psychology of Education - EJPE (Instituto Superior de Psicologia Aplicada)*, 19(2), 167–187.
- Chadbourne, R. (2001). *Middle Schooling for the Middle Years: What might the jury be considering?* Southbank, Australia: Australian Education Union.
- Connell, R. (2013). The neoliberal cascade and education: an essay on the market agenda and its consequences. *Critical Studies in Education*, 54(2), 99–112.
<http://doi.org/10.1080/17508487.2013.776990>
- Cranston, N., Kimber, M., Mulford, B., Reid, A., & Keating, J. (2010). Politics and School Education in Australia: A Case of Shifting Purposes. *Journal of Educational Administration*, 48(2), 182–195.
- Dewey, J. (1997). *Experience and education*. New York: Simon & Schuster.
- Dinham, S., & Rowe, K. (2009). Fantasy, Fashion and Fact in Middle Schooling: A critique, 6(3), 19–24.

- Fenwick, T. J., Edwards, R., & Sawchuk, P. H. (2011). Emergence and Perturbation. Understanding complexity theory. In *Emerging Approaches to Educational Research: Tracing the Socio-Material* (pp. 18–34). Routledge.
- Fielding, M. (2007). Beyond “Voice”: New roles, relations, and contexts in researching with young people. *Discourse: Studies in the Cultural Politics of Education*, 28(3), 301–310.
<http://doi.org/10.1080/01596300701458780>
- Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2), 219–245. <http://doi.org/10.1177/1077800405284363>
- Gordon, M. (2009). The misuses and effective uses of constructivist teaching. *Teachers and Teaching*, 15(6), 737–746. <http://doi.org/10.1080/13540600903357058>
- Gough, N. (2010). Lost children and anxious adults: Responding to complexity in Australian education and society. In D. Osberg & G. Biesta (Eds.), *Complexity theory and the politics of education* (pp. 39–56). Rotterdam: Sense Publishers.
- Hoepper, B., & McDonald, H. (2004). Critical Inquiry in SOSE - The Big Picture. In R. Gilbert (Ed.), *Studying Society and Environment: A Guide for Teachers*. Cengage Learning Australia.
- Hyvärinen, M. (2010). Beyond Narrative Coherence: An introduction. In M. Hyvärinen, L.-C. Hyden, M. Saarenheimo, & M. Tamboukou (Eds.), *Beyond narrative coherence*. John Benjamins Publishing.
- St Luke’s Innovative Resources. (2007). Picture This - Card Range. Retrieved April 22, 2013, from http://www.innovativeresources.org/Pages/Our_Publications/Card_Range.aspx?id=d9372f94-aa36-4f0b-9073-4ee960c91ab1
- Joyce, B. R. (1984). Dynamic Disequilibrium: The Intelligence of Growth. *Theory into Practice*, 23(1), 26–34.
- Kolb, D. A. (2014). *Experiential Learning: Experience as the Source of Learning and Development*. FT Press.
- Lakoff, G. (1986). A Figure of Thought. *Metaphor & Symbolic Activity*, 1(3), 215.
- Lau, S., & Nicholls, J. G. (1992). Adolescents Perceived Purpose of Schooling - a Study of Chinese and American Students. *INTERNATIONAL JOURNAL OF PSYCHOLOGY*, 27(3-4), 547–547.
- Marton, F., Dall’Alba, G., & Beaty, E. (1993). Conceptions of Learning. *INTERNATIONAL JOURNAL OF EDUCATIONAL RESEARCH*, 19(3), 277.
- McLeod, J. (2011). Student voice and the politics of listening in higher education. *Critical Studies in Education*, 52(2), 179–189. <http://doi.org/10.1080/17508487.2011.572830>

- McLeod, J. (2012). Middle School. In N. Lesko & S. Talburt (Eds.), *Keywords in Youth Studies: Tracing Affects, Movements, Knowledges* (pp. 44–49). Routledge Chapman & Hall.
- McLeod, J., & Yates, L. (2006). *Making Modern Lives: Subjectivity, Schooling, And Social Change*. SUNY Press.
- Meo, A. I. (2010). Picturing Students' Habitus: The Advantages and Limitations of Photo-Elicitation Interviewing in a Qualitative Study in the City of Buenos Aires. *International Journal of Qualitative Methods*, 9(2), 149–171.
- Nicholls, J. G., Patashnick, M., & Nolen, S. B. (1985). Adolescents' theories of education. *Journal of Educational Psychology*, 77(6), 683–692.
<http://doi.org/http://dx.doi.org.ezp.lib.unimelb.edu.au/10.1037/0022-0663.77.6.683>
- Opie, C. (2004). Research Procedures. In C. Opie (Ed.), *Doing educational research: a guide to first-time researchers*. London ; Thousand Oaks, Calif: Sage Publications.
- Ornek, F. (2008). An Overview of a Theoretical Framework of Phenomenography in Qualitative Education Research: An Example from Physics Education Research. *Asia-Pacific Forum on Science Learning and Teaching*, 9(2).
- Ortiz, A. M. (2003). The ethnographic interview. In F. K. Stage & K. Manning (Eds.), *Research in the College Context: Approaches and Methods*. Routledge.
- Polesel, J., Dulfer, N., & Turnbull, M. J. (2012). *The experience of education the impacts of high stakes testing on school students and their families: literature review*. [Rydalmere, N.S.W.]: The Whitlam Institute within the University of Western Sydney.
- Prosser, B. (2008). Unfinished but not yet exhausted: A review of Australian Middle Schooling. *Australian Journal of Education (ACER Press)*, 52(2), 151–167.
- Rose, G. (2005). Visual Methodologies. In G. Griffin (Ed.), *Research Methods for English Studies*. Edinburgh University Press.
- Saljo, R. (1979). *Learning in the Learner's Perspective. I. Some Common-Sense Conceptions. No. 76*. Gothenburg Univ. (Sweden). Inst. of Education.
- Stake, R. E. (1978). The Case Study Method in Social Inquiry. *Educational Researcher*, 7(2), 5–8.
<http://doi.org/10.3102/0013189X007002005>

- Thomson, P., & Gunter, H. (2007). The Methodology of Students-as-Researchers: Valuing and using experience and expertise to develop methods. *Discourse: Studies in the Cultural Politics of Education*, 28(3), 327–342. <http://doi.org/10.1080/01596300701458863>
- Thomson, P., Lingard, B., & Wrigley, T. (2012). Ideas for Changing Educational Systems, Educational Policy and Schools. *Critical Studies in Education*, 53(1), 1–7.
- Thorkildsen, T. A. (1988). Theories of Education among Academically Able Adolescents. *Contemporary Educational Psychology*, 13(4), 323–30.
- Travers, M. (2009). Qualitative Interviewing Methods. In M. Walter (Ed.), *Social Research Methods*. Oxford University Press Australia & New Zealand.
- Walter, M. (2009). The Nature of Social Science Research. In M. Walter (Ed.), *Social Research Methods*. Oxford University Press Australia & New Zealand.
- Yates, L., & Holt, B. (2009). “Under pressure I fall back to being a teacher...” confronting contending desires for schooling and teaching in a middle school reform project. *The Australian Educational Researcher*, 36(1), 27–42. <http://doi.org/10.1007/BF03216890>

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