



# Is school working for teenage boys? Outdoor learning and real-life skills could be the keys to re-engagement

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## Boys' educational under-performance

Whilst boys have been the chief beneficiaries of education through history, there was a shift of international educational focus at the end of the twentieth century to boys who appeared to be struggling in school (Weaver-Hightower 2003). The Australian Parliament commissioned an enquiry into boys' educational performance in 2002, which revealed that boys had lower average academic achievement (especially in literacy) and school retention, and higher rates of suspension and exclusion from school (House of Representatives Standing Committee on Education and Training 2002). This trend of boys' poor educational performance has continued since the turn of the century in Australia, and is mirrored in most other developed countries (Thomson et al. 2017). Australian boys' retention to the end of high school has consistently lagged behind girls (Australian Bureau of Statistics 2012), and boys rate themselves as being more disruptive in class (Griffiths and Webber 2017). Given this mounting evidence across a number of educational metrics, we can conclude that school is not working well for at least some boys.

Despite these statistically significant differences between genders, it should not be assumed that all boys are performing poorly, or that all girls are thriving at school. We need to identify which boys are under-performing, and consider solutions for those groups (Martino 2008). Australian data in the most recent Program of International Student Assessment (PISA) testing of 15 year-old students (in 2012 and 2015) indicated that indigenous background, low socio-economic level and school remoteness were associated with substantially lower academic performance for both boys and girls. There were no additional gender differences for indigenous

background or school sector (independent, catholic, government), however, and a possible gender effect for school remoteness and socio-economic background was not analysed (Thomson et al. 2013; Thomson et al. 2017). In summary, while recent PISA test results show that some demographic factors are correlated with low academic performance across all Australian students, they do not clearly identify which groups of boys are academically underperforming relative to their female peers.

## Student engagement

Before students can thrive academically, they first need to be *engaged* with their school learning experience. The construct of student engagement has been correlated with a variety of educational outcomes, including: school attendance, classroom behaviour, academic performance and school retention (eg. Appleton et al. 2008). A recent Grattan Institute report suggested that as many as 40% of Australian students are consistently disengaged in class, and that these students are one to two years behind their peers in academic performance. The report also identified that the majority of disengaged students do not actively disrupt the class, but rather tend to be unmotivated and off-task without attracting the teacher's attention (Goss et al. 2017). Engagement is a necessary precursor for learning, however a concerning proportion of Australian students are either passively or actively disengaged at school.

Student engagement levels generally decrease across the span of school years, and Australian data suggests that engagement is lowest in high school (Martin 2009). Recent surveys of public high school students in both Canada and NSW have found that engagement is lowest in middle high school, across factors including: academic interest and behaviours, teacher relations, and sense of belonging (Griffiths and Webber 2017). This marked decrease in engagement during the middle high school years has been termed the 'Year 9 dip' (Willms 2015).

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Boys in most developed countries tend to be generally less engaged at school than girls (Organisation for Economic Cooperation Development 2015). Whilst there has been a paucity of specific research on gender and school engagement (Griffiths and Webber 2017), a review of recent research mentioning engagement and gender found that boys generally reported lower levels of affective, cognitive and especially behavioural engagement (Lietaert et al. 2014). Once again, it is important to note that not all boys are disengaged with school, and not all girls are engaged and succeeding at school (Martino 2008). NSW student surveys have found that disengaged girls tend to retreat inwardly, and so escape the attention of teachers who are managing the disruptive behaviours of actively disengaged boys (Griffiths and Webber 2017). Whilst recognising that boys and girls have distinct educational challenges, the issues affecting boys have been acknowledged as both significant and neglected (Kleinfeld 2009).

### Is school working for boys?

Our current model of mass schooling is based on the industrial needs of over a hundred years ago, and formal education systems have been slow to change, according to a panel of international education experts (United Nations Educational Scientific and Cultural Organization 2015). Kurt Hahn, known for initiating Outward Bound and the Duke of Edinburgh Award in the mid-twentieth century, stated that education had “failed to satisfy the thirst for action, the thirst for mastery which is the birth-right of every healthy boy” (Hahn 1959, p. 5). In the Australian context, a federal government-funded review of boys’ motivation and engagement suggested that traditional curriculum and assessment methods do not meet the needs of many boys. The first recommendation of the review was that state and federal education systems should lead the international education community to develop ‘real world’ curriculum policies which value extra-curricula knowledge and learning experiences that will better engage boys (Munns et al. 2006). An approach to schooling which appeals to boys through high quality pedagogy, is also likely to benefit girls (Younger et al. 2005). Unfortunately there has been little change in educational policy and curriculum since these recommendations were made. An international report on gender equality in education similarly suggested that learning environments, pedagogy and curricula in most countries seem unable to engage teenage boys (Organisation for Economic Cooperation Development 2015).

One example of the flaws in the traditional education model is the importance placed on standardised testing, which has recently gained prominence on the international educational landscape. In the US, a culture of high stakes testing has evolved through federal funding, future enrolments and ongoing school accreditation being dependent on test performance

(Klein 2015). This emphasis on standardised test scores has influenced US schools to narrow their focus to teacher-centred test preparation (Hursh 2008). A similar effect can be seen in Australia with publicly available NAPLAN scores for individual schools creating a competitive educational landscape, which has resulted in a tunnel-visioned approach to pedagogy (Hardy and Boyle 2011). Students, parents and teachers are influenced to see the purpose of school defined by test outcomes, whereas quality pedagogy for both boys and girls should include clear links to students’ personal context and the real world outside of school (Lingard et al. 2002). Boys tend to be less compliant and tolerant, and boys from most developed countries are more likely than girls to report that they do not inherently value good marks, that school is a waste of time, and that it has not prepared them for adult life (Organisation for Economic Cooperation Development 2015).

### Reframing the purpose of school

In contrast to this reductionist ‘teach to the test’ educational mindset, there is growing enquiry into educational structures which will prepare young people for future challenges in an increasingly sophisticated world (Shellman 2014). Competency in core academic subjects is still necessary, but is no longer sufficient to prepare students to thrive in a complex, connected and constantly changing world (Ward 2004). To be successful in the twenty-first century, young people also need to develop transferable skills and attitudes such as: global awareness, critical thinking, financial and health literacy and collaboration skills (Kay 2009).

The function of education in the past was to prepare young people with the technical or ‘hard’ skills requirements for a trade or profession, but recent Australian research analysing 14 million job advertisements confirms that contemporary organisations are just as interested in social and emotional ‘soft’ skills for their prospective employees (Foundation for Young Australians 2017). These broader meta-proficiencies have variously been termed ‘enterprise skills’ (Ward 2004), ‘soft skills’ (Harun and Salamuddin 2013), ‘twenty-first-century skills’ (Kay 2009), ‘non-cognitive skills’ (Tough 2012) or ‘life-effectiveness skills’ (McLeod and Allen-Craig 2007). They are transferable between careers, and include: problem solving, communications, financial literacy, critical thinking, creativity, teamwork, digital literacy and presentation skills (Foundation for Young Australians 2017). A recent emergence of Social and Emotional Learning (SEL) programs in schools reflects this need for the development of life-effectiveness skills (Durlak et al. 2011), and the OECD is considering the inclusion of creative thinking as part of the 2021 round of international PISA testing (Lucas 2017). Teenage boys are not traditionally strong in some of these areas, particularly in emotional intelligence (Downey et al.

2008). Boys are no longer encouraged to leave the school education system early to pursue trade careers with a strong manual component, and so are now in greater need for personal management and social communication skills. Middle high school has been identified as a key developmental period to build enterprise skills (Kay 2009), however a formal curriculum which only assesses academic proficiencies is unlikely to be effective environment for the development of these vital personal and social competencies.

## The value of experiential learning

Experiential learning is well placed to help students build personal and social life skills, and this pedagogical approach is fundamentally different to traditional didactic pedagogy currently found in most classrooms. John Dewey (1938) contended that when learning occurs in isolation, it is not linked through experience to memory and therefore is more difficult to retrieve. He argued that learners need to interact directly with the world to understand it, rather than just being exposed to information. Kolb's popularly used Experiential Learning Cycle comprises learning, reflection, conceptualisation and experimentation stages in a continuing circle (Kolb 1984). A recent adjunct to experiential learning theory describes that all learning is the combination of cognitive and perceptual inputs, and that learning occurs at a more profound level when these sources complement and reinforce each other. In contrast, when cognitive input has no association with the physical sensations occurring alongside it, or even worse when these two sources are contradictory, there is limited opportunity for effective learning (Thorburn and Marshall 2014).

Experiential learning has been shown to be beneficial across various educational contexts, including: developing enterprise skills while not impeding test performance (Scogin et al. 2017), greater gains in higher-order thinking skills (Obenchain and Ives 2006), and increasing participation and collaboration amongst high school students (Fägerstam 2014). Experiential learning holds much potential for achieving a wide range of the personal and social competencies which will be vital for young people in the twenty-first century.

Outdoor adventure courses have significant benefits for personal and social development, even compared to other experiential learning formats (McLeod and Allen-Craig 2007). Participation in outdoor and adventure learning has been associated with developmental outcomes such as: personal growth, enhanced interpersonal skills, and group development (Ewert and Garvey 2007). Of particular relevance to boys, outdoor learning programs have been shown to sustainably improve emotional intelligence (Oppen et al. 2014). A meta-analysis of extended adventure programs found an impressive average effect size of 0.34 over a range of personal and social outcomes, which was also maintained over time (Hattie et al.

1997). Outdoor learning has promise for facilitating development of soft skills much needed by boys, however most Australian students have only limited access to outdoor learning programs.

## Current participation in outdoor learning

Outdoor learning only features in the high school curriculum in a minority of Australian states, either as a discrete subject or as an elective in Personal Development and Health (Martin 2010). Outdoor learning was not included in the recently updated national Australian curriculum (Gray and Martin 2012), and the closest link is a cross-curriculum priority on sustainability (Australian Curriculum Assessment and Reporting Authority 2016). Thorough statistics on participation rates in various types of outdoor learning in Australia would be beneficial for a range of stakeholders (Goode et al. 2014), however this data is unfortunately not readily available. A national survey of 380 Australian outdoor program providers suggested that most outdoor programs ran for 10–16 year old students over 3–5 days, and personal development and social development were cited as the most important goals (Williams and Allen 2012). Whilst there are undoubted benefits of exposure to a range of fun and challenging activities, as well as coping with being away from a home environment, a brief packed camp timetable often does not allow opportunities for reflection, which is fundamental to experiential learning (Beard 2013).

Some Australian independent schools include sequential annual outdoor programs as part of their overall educational offering, and these generally progress from short centre-based activities camps, described above, to more rigorous journey-based trips of up to 5 days in middle and senior high school. Trip-based outdoor programs offer more potential for experiential learning as they allow for periods of reflection, however the school teachers and external outdoor providers need to understand the experiential learning goals for the trip, and have proficiency in the facilitation skills required, to achieve these outcomes. A few schools run extended outdoor learning programs for middle school students, ranging from four weeks to a whole school year, which have achieved significant transferable skill outcomes (Gray 1997). A number of Australian teenagers enrol in the Duke of Edinburgh Award through their school or community group (for example, Scouts), which includes a 2–4 day adventurous journey (van Baren et al. 2015). The Award focuses on successful completion of the trip, rather than using the journey as an intentional platform for experiential learning, however a recent Australian pilot study showed that participation in the Duke of Edinburgh adventurous journey had an intermediary

effect on self-confidence, coping with change, leadership ability, overall effectiveness, and active involvement (Cole et al. 2016). In summary, accessibility to quality outdoor learning is limited in Australia, and there are very few public high schools with an established sequential outdoor program.

## Integrating outdoor learning into the middle high school curriculum

There is a strong case for including outdoor learning into the national middle high school curriculum, given that boys are least engaged with school around Year 9, and that outdoor learning is an effective experiential learning vehicle for school engagement and development of essential personal and social skills. Students are developmentally primed at this age to take on enterprise skills, as their brain chemistry is forming its adult structure and they are highly motivated toward social dynamics (Kay 2009).

We need to look beyond the current outdoor learning model of an annual stand-alone school camp, however, and investigate how experiential learning can be infused into everyday school life to explicitly develop life-effectiveness skills. Core academic classes could be taught with an intentional experiential learning emphasis, using a facilitative teaching style, problem-based learning in small groups, or on-campus outdoor learning environments. A timetabled outdoor learning class could build a foundation of life-effectiveness skills through short on-campus experiential learning activities, leading up to multi-day trips as peak learning experiences. School reports and tertiary entrance requirements could emphasise the importance of holistic development by including enterprise skills as well as academic and effort grades, similarly to the ‘triple bottom line’ philosophy of reporting responsible corporate performance (Elkington 1997). A broad raft of research is needed to explore the efficacy of various experiential learning initiatives for engaging boys in school, facilitating development of essential life-effectiveness skills, and improving boys’ academic performance. Such research should include case studies which detail the specific contexts surrounding the effectiveness of experiential learning, what outcomes are being achieved, which groups of students are benefiting, and what aspects of program and/or pedagogy mediate those outcomes.

## Conclusion

Boys are generally not performing well at school on academic, behaviour and retention metrics, and tend to

be least engaged in middle high school years. We need to re-imagine the purpose of education to go beyond acquisition of knowledge, to also equip students with increasingly important personal and social skills, which are a particular priority for boys in their middle teenage years. This will require fundamental change to educational philosophy, and will involve systemic change in how we go about the process of education. Experiential learning has been shown to be a successful educational model for motivating and engaging students, and especially for developing life-effectiveness skills. Outdoor learning is a particularly effective experiential learning modality, however is currently not accessible for most Australian students.

The aim of education should be reframed to prepare students to live purposeful lives and contribute to society. Enterprise skills need to be legitimised in the Australian school curriculum, and experiential learning methods should be woven into everyday classroom pedagogy. Additionally, outdoor learning deserves a specific place in the Australian high school curriculum, as a proven experiential learning platform for life-effectiveness skills. Research is needed to ascertain which experiential learning initiatives are most effective, in what contexts, and for which groups of students.

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