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Analysis and Research into Co-education in Australia and the UK

and the experience of those schools that change status

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The Single Sex v Coeducation Debate and the Experience of Schools that Change Status

2014 Research Project

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Abstract

The question of whether single sex or coeducational schools provide the 'best' environment for students has been researched extensively across the English-speaking world. The abundant academic research has considered the question in terms of academic achievement, a raft of social outcomes whilst at and after school and the experience of schools that make the transition from single sex to coeducation. Whilst the research provides important lessons for schools, particularly in making the transition to coeducation, it cannot be reasonably concluded that either structure is superior on any significant criteria.

Regardless of the lack of any definitive conclusion on the debate, the march toward coeducational schooling continues apace in both Australia and the United Kingdom. Both countries have experienced multiple pathways augmenting this trend; new coeducational schools opening, few single sex schools opening and existing single sex schools combining or opening the doors to the other gender.

The combined impact of these forces has been so significant that it tempts the conclusion that society has decided that coeducation is somehow an inherently better school model. However, many of the schools that are widely considered to be the 'best'¹ schools in both Australia and the UK remain single sex and this stultifies argument that single sex schools will become better by becoming coeducational. This is seen most clearly in the UK where the move to coeducation has been strongest, but the debate on its educational merits least strident.

Opinion from studies and anecdotal evidence from heads of schools interviewed suggests that the majority of schools that have changed have done so to enhance enrolments, both in number and quality. Examples of schools that have changed to coeducation for purely educational reasons are the exception to the rule.

The place of the Armidale single sex schools appears enigmatic as it sits outside the experience and action of other regional schools. Whilst other regional centres such as Ballarat, Bathurst, Charters Towers and Hamilton have seen single sex schools amalgamate or otherwise become coeducational, the Armidale schools have not. Toowoomba is the only other non-metropolitan centre where this is the case and it is six times the size of Armidale. The reality of future enrolment prospects for the Armidale schools, both in day and boarding markets, makes it clear that exploring the benefits that coeducation may bring, through economies of scale that will constrain fee growth and improve educational offering, must be pursued.

The decision to be considered now for TAS is whether to make structural adjustments for a lower enrolment future or to embrace growth through the introduction of coeducation. This will be an historic decision for the School.

¹ The term 'best' is used here in the popular, rather than criteria based or measured sense.

Introduction

This paper seeks to provide comprehensive background information pertinent to the question of whether The Armidale School should move toward coeducation in some form. The paper approaches the research in 3 parts;

In Part 1, a detailed literature review of the academic (as opposed to media based) research on the single sex / coeducation debate is presented. The review covers research on issues such as academic achievement, pedagogy and teaching, student characteristics and the experience of the school in transition. The overwhelming conclusion evident in the research is that neither coeducation nor single sex education has any substantive basis upon which to claim educational superiority. This is not to say that there is not strong opinion on the matter, but rather that the academic research has not found evidence that differences in performance between coeducational and single sex settings can be attributed to the separation or bringing together of the sexes.

Part 2 presents the results of quantitative and qualitative research. First a statistical analysis of the independent school landscapes of Australia and the UK is presented, approaching each in turn. The Australian analysis covers the overall landscape and the trends of the past 50 years, with particular emphasis on boarding schools. Knowledge of the broad features of groups of schools is used to present interpretation of the landscape, with particular focus on the place of TAS and the Armidale independent schools within that landscape. That Armidale retains three single sex independent boarding schools makes it stand out in the Australian regional independent school scene.

The UK independent boarding school landscape is presented with the focus narrowed to boarding schools in the interests of direct relevance and special attention is given to the transition from single sex to coeducation. This includes commentary on the experiences of schools that change from single sex to coeducation and the diamond model school. The strong trend from single sex to coeducational independent schools is considered from the perspective of motivations for the change in so many schools.

Second, the narratives of six UK schools that have made the transition from boys' education to coeducation in recent times are presented. The schools visited were selected as having direct relevance to the TAS situation, whether through size, location, history or other circumstances. Their journeys are presented with particular focus on the reasons for the change and the issues that presented in the process of that change.

Part 3 attempts to reconcile the research findings with the circumstances of TAS and presents recommendations for a way forward. The Armidale environment and the TAS situation are considered with emphasis on the interdependence of the 3 independent boarding schools, the declining enrolments in the girls' schools and the enrolment pressure being felt by TAS. The importance of envisaging alternative futures through scenario building is stressed and suggestions for a way forward are considered.

Part 1: Literature Review²

Part 1: Academic achievement

The 'Boy Crisis' is a term that has been used in both popular media and academic research to describe the phenomena of male students achieving lower academic results in comparison to female students and a lower ratio of male to female university entrants (Lingard, Martino & Mills, 2008). Proponents of the 'Boy Crisis' claim that male students are actively disadvantaged within schools due to gender equity policies and initiatives which have transformed the learning environment to favour girls' learning at the expense of boys' achievements (Bell, 2004; Gibb, Fergusson & Horwood, 2008; Mulvey, 2010). This has led to a rise in research findings from authors such as Gibb et al (2008) and Mulvey (2010) that school environments and curriculum have been 'feminized' in a way that prevents male students from engaging with academic work. Proponents of the 'Boy Crisis' have a tendency to use statistics in isolation, citing broad-spectrum research such as the OECD *Education at a Glance 2012* (2012) findings that female students are more likely than male students to complete secondary school, have higher professional aspirations and higher tertiary attainment rates while overlooking the finding that "Across all countries and all levels of education, women earn less than men, and that gap is not reduced with more education" (p. 28). Critics of the 'Boy Crisis' including Gill (2004) and Mills (2007) emphasise that these statistics are misleading, especially when included in research without contextual information, as they portray male students as one homogenized group, disregarding the significant individual, racial and socio-economic differences. This research paper acknowledges the conflicting perspectives on boys' academic achievements and recognizes a comprehensive range of factors that affect an individual student's outcomes (Crosswell & Hunter, 2012).

The widespread portrayal of male students as disadvantaged under achievers damages the learning opportunities for male and female students within a school context (Mills, 2007). This characterization has been labeled as a backlash against past pro-feminist policies which sought to promote gender equity and the acceptance of a broad, problematised understanding of developing masculinities³ (Keddie, 2009). It models male gender identity as uniform and gender neutral, an institutionally supported hegemonic masculinity, a position defined in opposition to femininity and marginalized masculinities (Foster, 1992). The negative effects of hegemonic masculinity in the classroom context have been well documented and include male students using unacceptable behaviour to dominate classroom interactions and belittle female students and male students that do not identify with the hegemonic performance of masculinity (Dalley-Trim, 2007; Kenway & Fitzclarence, 1997; Mael, 1998; Tsolidis & Dobson, 2006). The dominant presentation of adolescent masculinity in Australia and similar Eurocentric cultures is non-academic, a situation which pressures boys to disengage with academic pursuits in order to conform and be accepted by their peers (Dalley-Trim, 2007;

² Research assistance from Annelise Guest for the literature review is gratefully acknowledged.

³ This refers to the understanding that popular notions of masculinity are forged on images and roles that are unattainable for most and therefore a distance is created between the notion of masculinity and the possibilities for the majority of males.

Mills, 2007; Pringle, 2007). Teachers, school leaders, policy makers and curriculum developers acceptance of masculinity as non-academic creates a school environment that inevitably uses a deficit model when addressing masculinity, creating lower expectations and fewer possibilities to excel (Harry & Klingner, 2007). The growth model, supported by this article, can only be achieved by recognizing that boys' developing masculinity is not a barrier to learning or engagement (Yates, 2011).

The range and breadth of student subject selection has been used as evidence to support the premise that single sex schools are better able to promote gender equity than similar coeducational schools (Foster, 1992; Lee & Bryk, 1986; Watterston, 2001). Lee & Bryk (1986) argued that the scarcity of male students in domestic subjects and female students in science and trade subjects was due to the social enforcement of traditional gender roles within an adolescent mixed gender environment, and this position has been supported by numerous subsequent research papers (Bell, 2004; Gibb et al, 2008; Mael, 1998). Cognitive research into subject selection has revealed the development of subject specific self-concept and the impact of prior achievement is different for male and female students leading to a preference for highly verbal subjects amongst female students and experiential subjects amongst male students (Marsh, 1989; Marsh & Yeung, 1998; Ryan, 2004). Moral panic has surrounded gendered subject selection for several decades and single sex education, either within a single sex school or single sex classes within a coeducational school, has long been suggested as a solution. However, there exists much research that states single sex learning environments reinforce gender roles that exclude students from specific subject areas (Lingard et al, 2008). The critical feature of schools that support students in subjects not traditional to their gender is the academic culture of the school (Billger, 2009; Crosswell & Hunter, 2012).

The positive impact of single sex classes on academic achievement is regarded as a certainty within popular media and the policies of many schools to establish single sex classes in specific subject areas, despite conflicting evidence, supports this belief (Bell, 2004; Crosswell & Hunter, 2012). This ideology is part of the deficit model that first positioned femininity and currently positions masculinity as something that needs to be 'fixed' in order to address disparate academic achievement (Harry & Klingner, 2007; Lingard et al, 2008). The theory is that male students require a dramatically different learning environment within which they are able to explore uniquely male interests and engage in competitive learning styles (Marsh, 1989; Walls, 2006; Watterston, 2001). There have been numerous studies of academic achievement within single sex classes in Australia and in similar contexts overseas. However, the results are inconsistent and often rely on perceptions of students, teachers and parents that have been influenced by media support for the programs and resistance to change (Gibb et al, 2008; Gray & Wilson, 2006; Small, 2012; Yates, 2002). Uniform support for single sex classes can only be found when educators design teaching and learning strategies that appeal to the individual students in a class, are academically challenging and support students' social development and wellbeing (Anderson, 2006). While some researchers claim that these characteristics of quality education are more achievable within a single sex environment (Delfos, 2005; Watterston, 2001), it is accepted that they may be

implemented within a coeducational classroom (Anderson, 2006; Lingard et al, 2008).

Conflicting evidence in research concerning the academic impact of single sex and coeducational schooling is the result of disparate appraisals of selection bias for students involved in single sex schools learning environments and the homogenization of gender groups (Crosswell & Hunter, 2012; Smithers & Robinson, 2006). The bias of the researcher must be considered, especially in cases where the researcher had a vested interest in the material, as was the case for Bell (2004) who analysed the impact of the transition of a school from single sex to coeducation, while teaching at the school, using comparative rather than outcomes based data. Justifications of single sex schooling, including Allinson & Hayes (2000) and Gibb et al (2008), often neglect the more significant student differences that come as consequence of socio-economic factors, racial factors, difference in school ethos and individual differences (Okopny, 2008). Studies that control for these important considerations inevitably reveal a far lesser or statistically insignificant difference between the academic achievements of students participating in single sex and coeducational learning environments (Billger, 2009; Dollison, 1998; Gill, 2004; Ryan, 2004; Walls, 2006; Woodward, Fergusson & Horwood, 1999).

Part 2: Pedagogy and Teaching

Advocates of single sex classes often state there is a correlation between gender and cognitive style, the preferred processes for organizing new information and reinforcing neural connections (Allinson & Hayes, 2000). The perceived differences between male and female students begin at the biological level with contention that male and female brains are different, based on evidence from neuro-scientific research revealing differences in structure, processes and chemical reactions to stimuli (Button, 2012; Delfos, 2005; Okopny, 2008). Research suggests that male and female learning is best enabled through different pedagogies and learning strategies and the promotion of different learning styles (Button, 2012). This has led to the widespread assumption, based on conventional knowledge about men and women, that female students require highly verbal learning experiences while male students prefer practical activities (Grady, Aubrun & Emanatian, 2005; Delfos, 2005; Mills, Martino & Lingard, 2007). However, research into neural processes has not referred to this distinction, instead revealing a male preference for multi-modal learning styles, a female preference for uni-modal styles and emphasizing the complexity of brain function (Button, 2012). The notion that males innately prefer competitive learning activities and females learn better in a cooperative learning community has been widely disseminated and continues to affect school policies and planning (Mills, 2007). There is a variety of research that upholds this difference but asserts that the preference is learnt as children are influenced by expectations to conform with traditional gender roles (Grady et al, 2005; Tsolidis & Dobson, 2006). There is an over emphasis of cognitive sex differences within research, supported by bias in favour of traditional understandings of gender, that minimalises consequential similarities between male and female students (Button, 2012; Dollison, 1998; Foster, 1992). Cognitive difference between male and female

students is well documented, but research must be followed closely in order to avoid reinforcing stereotypes (Anderson, 2006; Lingard et al, 2008).

The knowledge that male and female students prefer different learning styles anticipates gender equity issues within learning spaces, particularly coeducational classes (Crosswell & Hunter, 2012). Historically, the need to provide equitable learning opportunities for male and female students has precipitated the call for both coeducational and single sex classes within secondary schools (Yates, 2009). Recent justifications of single sex male classes emphasise the idea that male students require relevant curricula and engaging pedagogy. However, this may also be described as quality teaching practice for all students. It is not limited by gender and relevance of learning activities to individual students and cannot necessarily be assumed to be based on gender (Dollison, 1998; Foster, 1992; Mills et al, 2007). Research has shown that student gender and performances of gender have a significant impact on the school experience as teachers, peers and school structures intentionally and inadvertently impose sex role stereotypes (Dalley-Trim, 2007; Dollison, 1998; Lingard et al, 2008). There is evidence that the majority of teachers actively attempt to address stereotypes and encourage gender equity in their classrooms. However, there remains a disparity in classroom interactions as teachers spend more time correcting male behaviour, asking content related questions of male students and interacting in order to engage male students (Dunlop & Macdonald, 2004; Francis, 2000; Gray & Wilson, 2006; Younger & Warrington, 2002). Coeducation requires teachers consciously adopt a gender balanced pedagogy which realizes the individual needs of each student based on their assessed skills instead of gender characterisations and which stimulates both male and female students to contribute positively to classroom discussion (Dunlop & Macdonald, 2004; Foster, 1992). A problematized understanding of masculinity is necessary in order for teachers to design and apply pedagogies which best meet the needs of their students (Gray & Leith, 2004; Kenway & Fitzclarence, 1997).

The idea that pedagogy is and should be gendered⁴ is well entrenched within media portrayals of teaching and within the presupposition of academics in the field of education, including Allinson & Hayes (2000) and Delfos (2005). The major difficulty faced by research and prediction in this area revolves around the relationship between theory, pedagogy and praxis in tangible classrooms: teachers of co-education classrooms are ethically inhibited from offering teaching strategies aimed at either males or females over a medium to long term time frame (Keddie, 2009). There is an ongoing debate as to whether the standard pedagogy imposed on students in co-educational schools privileges males or females, however theorists have posited that claims of 'feminization' by proponents of the 'boy crisis' are concealing a deeper anti-feminist public sentiment within the teaching landscape (Mills et al, 2007; Okopny, 2008). Within single sex educational environments, the ability to tailor learning and teaching strategies to the gendered needs of male or female students is widely used as a marketing tool, based on the public belief that male students, in particular, require additional teacher intervention in order to achieve outcomes (Grady et al, 2005; Lingard et al, 2008).

⁴ This refers to the notion that teaching styles should be designed according to gender, rather than one style for all students.

This belief is potentially damaging for male students, especially those with the capacity to exceed stated outcomes, as pedagogy designed for male students in such a climate is reductionist and caters to a deficit model that does not aim to improve males' complex literacy skills (Lingard et al, 2008; Okopny, 2008).

Arguments for both coeducation and single sex education acknowledge the pre-eminence of teacher quality as the most significant factor within the classroom impacting student achievement (Woodward, Fergusson & Horwood, 1999). Teacher attitudes towards and beliefs concerning the gender distribution status of the school they work at may be more significant to academic achievement and student wellbeing than the gender distribution status itself (Gray & Wilson, 2006). The specific pedagogical benefits of coeducational or single sex education is only realized through significant application to and engagement with evidence based practice and research concerning gender specific classroom praxis (Lingard, Martino & Mills, 2008). However, teachers in Australia are often attracted to employment in single sex schools in Australia as there are pre-conceptions that employment conditions are better at single sex boys' schools (Mael, 1998). There is an expectation among stake holders that single sex schools will employ staff that are positive gender role models for students, however teacher gender is not of consequence in creating a school culture of high expectations (Mills, Martino & Lingard, 2007). Teachers who are unprepared for or unengaged with the gender distribution are predisposed to respond to students unequally, focusing more attention on male students than female students and over emphasizing the negatives of males' behaviour (Okopny, 2008). Teachers within single sex and coeducational classroom contexts require professional development in order to develop appropriate teaching and learning strategies for the specific male and female students in their classes (Gray & Wilson, 2006; Mulvey, 2010).

Teachers' beliefs concerning the academic and emotional impact of the transition from single sex schooling to coeducation have a profound impact on individual students and the school environment. Teachers are able to support the transition through engagement with the positive academic and social opportunities offered within co-education and applying this attitude to the planning of teaching and learning strategies (Watterston, 2001). Many studies observing the negative impacts of transition to coeducational schooling implicitly comment on the opposition of staff to the transition and the subjectivity of research methods that rely on teacher self reporting or teacher mediated student interviews (Bell, 2004; Gray & Wilson, 2006). Students' identification with the school ethos decreases and anxiety rises when teachers do not actively support the incoming model of coeducation and do not put programs in place to assist students to accept significant changes to the school and classroom environment (Gray & Wilson, 2006; Smith, 1996). Research that measures teachers' perceptions of academic performance and social wellbeing of students before and after the transition from single sex schooling to coeducation finds that teachers consistently and incorrectly favour single sex learning environments (Smith, 1996). This is particularly true in cases where all girls' schools commence coeducation and researchers suggest that teachers' incorrect perceptions may be related to teachers' experience of increased negative classroom behaviours within coeducational learning spaces (Dalley-Trim, 2007; Gray & Wilson, 2006). Teachers must be supported by data regarding the

actual affects of the transition to coeducation as their beliefs and practice have the power to significantly affect the experiences of students (Watterston, 2001).

It is critical that schools develop and apply long term programs to support teacher wellbeing that take into account the specific needs of the school and staff as teacher wellbeing significantly impacts teaching quality. Research by Yates (2009) has identified a number of factors that affect teacher wellbeing during a school's transition from single sex education to coeducation, including job security, belief in transition and perceptions of efficacy. Job security is negatively affected by any dramatic change within the workplace that is not perceived as within the individual's locus of control or influence, certainly including the substantial difference in student intake and staff leadership change that surrounds schools in transition (Hill, Hannon & Knowles, 2012). Schools that actively involve teachers in aspects of the transition report widespread teacher belief in the transition and a willingness of staff to engage with revising teaching practices to better serve the varied individuals in their classes (Gray & Wilson, 2006). Teachers' perceptions of efficacy in the classroom and as an active member of a staff team is connected to both their personal characteristics and their experiences in teacher training (Dunlop & Macdonald, 2004). The adjustments to classroom practice expected during the transition to coeducation, including promoting gender equity and applying strategies and content material that are equally appropriate and appealing for the individual male and female students in a class, may be challenging to teachers (Lee, 2003). Teachers participating in research regularly cite updating classroom management strategies to better serve the male and female students in their class as a significant challenge during transition (Dunlop & Macdonald, 2004). The transition from single sex schooling to coeducation is positively effected when schools anticipate the challenges teachers may face, put programs in place to support staff and prioritise teacher wellbeing.

Part 3: Student Characteristics

Measures of student wellbeing have been used by many researchers to support the advantage of both single sex and co-educational learning environments (Bell, 2004; Lingard et al, 2008; Marsh, 1989; Ryan, 2004). Scientific measures of student wellbeing involve controlled testing of student self-esteem and anxiety, such as the widely used Rosenberg Self-Esteem Scale (1989) and Coopersmith Self Esteem Inventory (1981) (Bell, 2004). These popular academic measures of the self esteem of large groups of individual children and adolescents are separated into sub-scales that identify academic, social, family and general self esteem (Bell, 2004).

Student wellbeing has a profound impact on students' achievement of social, academic and career outcomes and has long been used to justify the continuance of single sex schools, particularly for female students, and the establishment of single sex classrooms within co-educational schools for male and female students (Anderson, 2006; Delfos, 2005). Aspects of student self-concept considered to have the most significant impact include the development of student identity and the ability to identify with the ethos of the school, students' subject specific academic and social self-esteem and levels of anxiety, and students' engagement with a broad curriculum and within the learning environment (Button, 2012; Pringle,

2007; Ryan, 2004). The comparison of the wellbeing of students within single sex and co-educational learning environments reveals some general constants that arise in male and female students' social and academic self-concept. Research has long acknowledged small but statistically significant differences in measures of broad self-concept in favour of male adolescents, though female students consistently score higher in areas of verbal academic self-esteem (Mael, 1998; Marsh & Yeung, 1998).

A measure of students' developing sense of identity involves quantifying students' individual conceptualization of the ideal adolescent and how their own self concept compares to this ideal, an impression that is greatly influenced by students interactions with family, peers, the school environment and wider society as conveyed through the media (Bell, 2004; Lingard et al, 2008). Comparisons between boys' and girls' identity within research and school policy has been greatly affected by the same stereotypes and social movements which impact upon students in the classroom, resulting in a series of Australian education policies which fail to recognize the interrelation of class, race and gender and fail to stimulate change to the frameworks within schools which engender inequitable outcomes for disadvantaged students (Keddie, 2009; Fraser, 2007). The result of such policies in Australia and other OECD nations on secondary school students' perceptions of identity has been the increasing participation of women in tertiary education focused on traditionally female areas, such as health services and education (OECD, 2012). Australian education policies which aim to support boys' education, including *Boys: Getting it Right* (Parliament of the Commonwealth of Australia, 2002), have focused on improving outcomes for male students through measures which appeal to traditional conceptions of hegemonic masculinity. However, these policies have opened discourse into problematizing male students' developing ideas of masculinity and gendered identity (Mills et al, 2007; Mills, 2007). The effects of gender stereotypes have been shown to be lesser within single sex learning environments, where students of both genders are more likely to take subjects and participate in activities outside of traditional gender roles (Billger, 2009; Dalley-Trim, 2007; Foster, 1992).

Adolescents' experiences of self esteem and anxiety have a significant demonstrated affect on wellbeing, all assessments of achievement and measurements of self-actualisation (Maslow, 1970). Self esteem may be understood as the multidimensional product of an individual's perceptions of their own power, socially comparative significance, virtue and competence with reference to expected performance (Coopersmith, 1967). There is a large body of research which asserts that both teachers and students perceive an improvement in adolescents' self esteem in a single sex learning environment, whether that be a single sex class within a co-educational school or a single sex campus (Anderson, 2006; Callum, 2001; Bell, 2004; Mael, 1998; Smith, 1996; Watterston, 2001). However, these perceptions are often the result of stereotypes which incorrectly portray male and female students as homogenous groups acting in line with hegemonic demonstrations of gender without considering other important factors, such as race and class, which impact upon the individual's classroom engagement (Anderson, 2006; Foster, 1992; Ryan, 2004). Support for single sex

education within the wider community is often based on the long standing belief that students' academic and social development will be negatively affected by social anxiety caused by the presence of the opposite gender (Bell, 2004; Delfos, 2005; Watterston, 2001; Yates, 2002).

Anxiety and poor academic self esteem have significant negative impact on students' subject specific academic self-concept, resulting in a marked decline in academic performance, selection of 'non-academic' subjects and the lowering of post-school ambitions (Marsh, 1989; Marsh 1998). Adolescents identify two major causes of personal academic anxiety: social pressure to conform, traditionally thought of as far more damaging within a coeducational learning environment, and academic pressure to perform, the impact of which is frequently omitted from studies and papers that emphasise the importance of either coeducation or single sex schooling (Yates, 2007). The affect of the transition of a school from single sex to coeducation has been said to have a strong negative influence on the social and academic self-concept of students, with Bell (2004) in particular arguing that male students within his study were unable to achieve the expected level of academic results due to increased social pressure to conform. However, longer studies by Ryan (2004) and Marsh (1988) contend that the short term decline in male and female students' academic achievements immediately after the transition to coeducation is the result of increased academic pressure to perform within a more diverse and competitive learning environment.

Students' ability and willingness to engage with academic material is influenced by students' academic self-concept, including pressure felt to conform socially, and impacts upon students' results and teachers' perceptions of academic ability (Button, 2012). Research on the academic attitudes of students suggests that engagement with academic pursuits, understood as a product of behavioral, emotional and cognitive factors, is highest for both male and female students at single sex schools (Lee Bryk, 1986; Yates, 2007). However, the majority of this research does not take into account the impact of the traditionally higher socio-economic composition of single sex schools as compared to other schools in Australia, the United Kingdom and the United States of America (Mael, 1998). Pedagogical practices designed to assist students' multi-faceted engagement within the classroom are often described as benefiting a specific gender. In particular, research has shown that male students show higher engagement when presented with multi-modal learning styles (Button, 2012; Smith, 1996). This is provided as evidence that single sex learning environments are better able to engage students academically, however teachers at single sex schools are rarely trained in understanding the differing preferences in neural processes between male and female students or in developing and using gender specific pedagogies which draw upon these differences (Button, 2012; Okopny, 2008). The result is gender biased teaching which favours hegemonic constructions of gender identity which neglect factors other than gender affecting students, including social background and individual interest (Small, 2012).

Part 4: The School in Transition

Throughout the latter half of the 20th century and the 21st century a significant number of single sex schools in the United Kingdom, the USA and Australia have

transitioned to part or full coeducation (Gill, 2004). Research into the school in transition has found distinctive characteristics of schools shifting successfully to various models of co-education and identified trends as students' sense of belonging to school is challenged by significant change (Yates, 2002).

The transition to coeducation necessarily alters the school ethos, either through careful strategic planning or simply the difference in classroom and school dynamics caused by expanded diversity in the student population. There is an identified male norm within the Australian educational policy context, which is based on a narrow conception of masculinity that limits the ability of students identified as 'other' to associate with the school ethos (Moyle, 2005). This observed difference is theorized by academics that state identity is constructed through ideas of both belonging to specific groups and not belonging to groups identified as 'other' (Yates, 2002). This rejection of the other may be exaggerated during the transition from a single sex learning environment to co-education, as the presence of a constructed gender binary causes students to self identify within extremes of gendered behaviour, if there is not a significant move to include positive conceptualizations of all genders within the school ethos (Marsh, 1988). The negative case is illustrated by Bell's (2004) assertion that there was a considerable drop in school spirit, a measure of student identity with the school ethos, following the arrival of female students at the previously male school, judged solely on the amount of cheering during sports events open solely to male participants. The transition at this school, judged by Bell (2004) to be unsuccessful due to a perceived negative impact on male students' wellbeing, was marked by a failure to gain teacher and student support for the reordered school ethos.

A crucial aspect of the school ethos that must be assessed and revised during the transition from single sex schooling to a coeducational environment is the construction of masculinity and violence. Single sex boys' schools have traditionally utilized positive performances of dominant heterosexual masculinity, including physical strength, competitiveness, discipline and reason, as ideals in order to promote the achievement of outcomes in the school academic setting and a later projected career setting (Kenway & Fitzclarence, 1997). The introduction of female students within this environment causes temporary stress to students' conception of identity as positive and negative renderings of traditionally feminine values are introduced to the academic environment and may be interpreted to subvert previously idealized masculine values (Pringle, 2007). The negative performance of these values is illustrated in verbally and physically violent behaviours, used to enforce male power over female students and regulate the behaviours of male students, particularly male students identified as other (Dalley-Trim, 2007; Gray & Wilson, 2006). It is significant to note that Gray & Wilson (2006) found that teachers perceived an increase in unacceptable verbal and physical classroom violence following the transition from co-educational classes to single sex classes, demonstrating that the role of dominant masculinities may be restructured in damaging ways in an all boys' environment in certain contexts. The dynamic nature of masculinity and femininity provide schools in transition with the opportunity to integrate the traditionally masculine competitive and objective behaviours with traditionally feminine cooperative and subjective behaviours, creating a school ethos which actively supports students forming identity outside

the dominant male discourse (Kenway & Fitzclarence, 1997; Mills, 2007; Pringle, 2007). The school has a responsibility to provide a learning environment safe from violence, a challenge that requires the balance of positive performances in terms of masculinity and femininity which allows all students to create individual identity based on personal choices.

Schools undergoing the transition from single sex to coeducation and amending their school ethos appropriately must consider the role of parents as stakeholders and the ways in which parent understandings of the educational environment are affected by the media and popular perceptions. Single sex schools, and particularly older private single sex schools, have long been perceived as 'good schools', promoting higher academic achievement and supporting students' passage into the professional world (Dollison, 1998; Gill, 2004). Research has shown that this social class based presupposition is ill-founded. However, the reputation of single sex schools adopting coeducation is significant for both marketing purposes and the ability of students to identify with and respond to the school's academic ethos (Dollison, 1998; Ryan, 2004). The school ethos, and particularly a whole school belief that academic pursuits are rewarding, has a far more significant impact on students' academic achievement and post school aspirations than the gender composition of a school alone. However, it is significant that this ethos is impacted by beliefs surrounding the academic value of single sex learning environments (Lee & Bryk, 1986). The successful reconstruction of the school ethos and the school brand during the transition from single sex education to coeducation can and has resulted in a positive reaction from parents and prospective parents (Crosswell & Hunter, 2012; Smithers & Robinson, 2006).

Analysis of the literature has demonstrated that the impetus for the transition from a single sex to a coeducational institution has a profound impact on the continuing success of the school following the transition. Many traditionally single sex schools have been prompted to adopt coeducation in an effort to increase total enrolments, supporting the financial stability of the school. However, this measure is not successful unless significant strategic planning is undertaken to ensure the school supports genders equally (Smith, 1996). The transition from single sex to coeducation is most successful, as measured through the financial gain of the institution, when all stakeholders within the school and the wider community fully support the transition and work towards creating equal benefits for male and female students attending the school (Smith, 1996).

Numerous studies (Bell, 2004; Marsh, 1988; Ryan, 2004; Smith 1996; Yates, 2002) have investigated the impacts of the transition from a single sex learning environment to coeducational schooling within the context of a specific case study. As in the body of research comparing single sex schools with separate coeducational schools (Crosswell & Hunter, 2012; Smithers & Robinson, 2006), the findings of these studies and the resulting prescriptions are conflicting. However, some trends do arise within particular contexts. Although a decline in academic achievements amongst students experiencing the transition is one of the major anxieties amongst teachers, parents and students (Bell, 2004), the quantitative analytic focus on results shows that students established within the school obtain marginally higher grades, though there is no real difference between male and female students' academic performance (Marsh, 1998; Ryan, 2004; Yates, 2002).

Longitudinal studies conducted over the course of the transition reveal that students' ability to identify with the school ethos is more significantly related to the number of years spent attending the school, rather than the school's status as single sex or coeducational (Ryan, 2004; Yates, 2002). The decrease in measures of student wellbeing which formed the basis of Bell's (2004) assessment that the shift from male only learning conditions to coeducation caused harm to students is not supported by the longer term studies conducted by Marsh (1988), Smith (1996) or Yates (2002), who all found that measures of student wellbeing suffered a small decrease before increasing to at least the original levels over the course of the transition. While the impact of the transition from single sex to coeducation is distinctive to each individual school, the body of research has demonstrated that schools have been able to successfully transition to coeducation, resulting in positive outcomes for new and continuing students.

There are several distinct models of coeducation that have been implemented by schools undertaking the transition from a wholly single sex learning environment, the nature of which impact upon students and the school. Most of the body of research (Bell, 2004; Marsh, 1988; Ryan, 2004; Smith 1996; Yates, 2002) concerning the transition itself deals with schools introducing full coeducation in the secondary school on a single campus. However, there are several distinct models of implementing coeducation in Australia (Ryan, 2004). The first, and most popular, remains full coeducation, in which students attend coeducational classes on a coeducational campus; this model emphasizes the importance of gender equity in education the importance of creating equal access to the social roles students will later take on (Gill, 2004).

Schools offering coeducation in the senior years only tend to justify their position in the middle ground, between single sex and coeducation, by highlighting the ways in which the cognitive and physical development of students impacts behaviours in a coeducational environment (Gray & Wilson, 2006; Lingard et al, 2008). The Diamond School Model is a term that applies to a certain style formatting of education that combines both single sex and coeducational teaching within the same organisation. Currently being implemented in a number of UK Independent schools, the model usually consists of a coeducational preparatory school, single sex streaming from years five or seven to eleven, with students joining together in coeducational classes in sixth form. Both the one school with two single sex campuses model and the single sex classes on a coeducational campus model echo the theoretical substantiation of single sex schools (Anderson, 2006; Lingard et al, 2008; Watterston, 2001). Evidence to support a particular model of coeducation is highly conflicted (Crosswell & Hunter, 2012) due to the different theoretical standpoint of each framework, yet it is clear that the most significant factor for schools to consider is the projected impact upon school ethos and support for the school identity.

Part 2: Primary Research

Methodology

Method: The research methodology used in this project is a mixed method approach, beginning with quantitative data from both Australian and UK school settings and overlaying it with qualitative information from on-site investigations of school experiences of transitioning from boys' only education to coeducation in the UK. The research begins from the neutral stance as a statistical picture of UK and Australian independent schools is constructed. This then shifts to targeted qualitative research on six UK schools that have made the transition to coeducation in the reasonably recent past.

Relationship to the Project: The quantitative research methodology is designed to empower decision makers with a clear and comprehensive picture of single sex and coeducational schooling in Australian and the UK, including the extent of single sex schooling, historical trends in the establishment of schools and the schools that have changed status from single sex to coeducation. The qualitative research from the UK is designed to enrich the data with narrative on the experience of making the transition from single sex to coeducation.

Data Collection Methods: The quantitative data has been collected from a range of websites. In Australia, these included <http://www.myschool.edu.au> and the independent schools website <http://www.privateschoolsdirectory.com.au> and individual school websites for schools that had changed status. In the UK they included the independent schools website <http://www.indschools.co.uk/> and individual school websites for schools of interest.

The qualitative research involved visits to six UK schools that have made the transition to coeducation within the past 20 or so years. All are boarding schools and all are now coeducational throughout the secondary years. Beyond this commonality, the schools represent a cross-section of regional and large town setting, very old and more recently established schools and schools with waiting lists and vacancies. Information was gathered from interviews with the Head and a number of other senior staff. In all cases, the schools were informed of the specific nature of the investigation, ie: the experience of introducing coeducation, and all responded by arranging meetings with staff who experienced the transition as well as those working with boys' and girls' boarding. In each case, the schools were generous with their time (particularly in light of the approaching 'A' level exams and the end of the school year) and most accommodating and I am very grateful to them. The interviews were relatively unstructured, allowing for investigation of the 'feel' of the experience, comparisons to other schools and the major issues faced.

Limitations to the Research: The quantitative research is limited by the ready availability of data on specific measurements for many schools. For example, of the 721 independent secondary schools in Australia included in the research, the date of establishment is not readily apparent for more than 80 of them. It is apparent that a significant number of these are special schools or have been recently established, but the lack of available time to research individual establishment dates has limited the research conclusions.

The qualitative research is limited by the bias of those interviewed. All staff interviewed were positive about both their school and the experience of the transition to coeducation, often to an extreme degree. Their comments are taken at face value in this research, but the likelihood of bias is recognised in the conclusions.

Results

Australian Independent School Scene

The Landscape Overall The Australian independent school landscape is heavily dominated by coeducational schools. Of the 720⁵ independent secondary schools currently operating, 566 are coeducational day schools and 48 are coeducational boarding schools, making a total of 614 coeducational schools and comprising 85% of all independent secondary schools. There are 34 girls' day schools and 36 girls' boarding schools, making a total of 70 girls' schools, comprising just under 10% of all independent secondary schools. Boys' schools are in the minority, with just 11 boys' day schools and 25 boys' boarding schools, making a total of 36 boys' schools, representing 5 percent of all independent secondary schools.

School Establishment over the past 50 Years In the last 50 years, in excess of 500⁶ new independent secondary schools have been established across Australia. Of these, just 11 are single sex schools. In enrolment terms, the new schools established since 1964 together have some 270,000⁷ enrolments. The single sex schools account for less than 4,000 of these.

As is identified in the list below, of these 11 schools:

- 4 are PARED (Parents for Education) Catholic schools
- 2 are Jewish schools
- 2 are special schools for students unable to engage with mainstream schooling
- 1 in a Uniting Church school with a sister school nearby and
- 1 is a Catholic Good Samaritan School established in 1966.
- 1 is a girls' school for predominantly Turkish and Muslim students.

It can be reasonably concluded from this data that not only has the establishment of single sex secondary schools been a rarity in the last half century, but most of

⁵ Source: The Australia Private Schools Directory - <http://www.privateschoolsdirectory.com.au>

⁶ The total is between 442 and 526, but the exact number is not known, as the establishment date for 85 schools is not readily apparent from the websites used for this research. Further research would find the establishment dates for most schools. It is clear though that the great majority of these schools, perhaps all, have been established recently and so it can be concluded that it is highly likely that the total is above 500. This data has been collected principally from the Australian Private Schools Directory - <http://www.privateschoolsdirectory.com.au/> and individual school websites.

⁷ This figure includes both primary and secondary students.

the 11 schools established in that time appear to have an imperative to be single sex that goes beyond educational choice.

List 1: Single Sex Schools Established Since 1964⁸

1. Yeshiva College (established 2007) – a boys’ Jewish school in Sydney of 71 students.
2. Moreton Bay Boys’ College (established 2003) – a boys’ Uniting Church School in Brisbane of 513 students. MBBC is the sister school of Moreton Bay College for girls, established in 1984.
3. Kesser Torah College (established 2003) – a girls’ Jewish school in Sydney of 337 students.
4. Wollemi College (established 2004) – a boys’ Catholic School of 139 students in Sydney’s West. Wollemi College grew out of Orchard Hills Preparatory School which was founded in 1999 by a group of parents and teachers, the PARED (Parents for Education) Foundation. It is sister school to Montgrove College for girls.
5. Montgrove College (established 2004) – a girls’ Catholic School of 449 students in Sydney’s West. Wollemi College grew out of Orchard Hills Preparatory School which was founded in 1999 by a group of parents and teachers, the PARED (Parents for Education) Foundation. It is sister school to Wollemi College for boys.
6. Carinity Education (established 1997) – a girls’ special school in Brisbane of 92 students. SEC is a special school for students who have disengaged from mainstream schooling.
7. Redfield College (established 1986) – a boys’ Catholic school of 497 students in Sydney’s North. Redfield is a PARED (Parents for Education) school.
8. Tangara School for Girls (established 1982) – a girls’ Catholic school of 616 students in Sydney’s North. Tangara was the first of the PARED (Parents for Education) schools.
9. Mount St Benedict College (established 1966) – a girls’ Catholic school in the Good Samaritan tradition located in Sydney’s North of 947 students.
10. Wisdom College (established 2012) – a girls’ school in Brisbane with a predominantly Turkish and Muslim enrolment of 59 girls.
11. Karauka (establishment date unknown) – a boys’ special school for students with ADHD and low self-esteem conditions in Melbourne.

The Boarding School Landscape In terms of school establishment, the picture for boarding schools is even more compelling than it is for day schools. Over the past 50 years, 17 boarding schools have been established and all are

⁸ All enrolment figures in Lists 1 to 6 are taken from 2013 MySchool Data

coeducational. The last single sex boarding school to be established was Penrhos College (girls) in Perth in 1952 and before that Fahan School in Tasmania (girls) in 1935. The last boys' boarding school to be established in Australia was Canberra Grammar School in 1929 and before it, Knox in 1924 and Cranbrook in 1918. That there has not been a boys' boarding school established anywhere in Australia for 85 years is significant.

Whilst the numerical domination of coeducational schools overall is very significant (85% to 15%), this is not the case for boarding. In stark contrast to the data from the UK (detailed later) the numbers of single sex and coeducational independent boarding schools in Australia are roughly equal (51 single sex and 48 coeducational). This is despite 22 boarding schools changing status from single sex to coeducation. The single sex boarding schools carry a disproportionate weight in terms of 'status'. Notwithstanding a number of notable omissions such as Geelong Grammar School, Geelong College and Barker College, the lists of boys' and girls' boarding schools appears to cover much of the 'A list' of boarding schools in the country, whilst many of the coeducational boarding schools appear to carry less status.

Of the boarding schools, 17 of the 25 boys' schools and 21 of the 36 girls' schools were established in the 19th century. The average date of establishment for the boys' schools is 1884 (median 1891) and for the girls' schools 1899 (median 1896/7). Two thirds (66) of the oldest 100 schools in the country remain single sex today⁹. It is clear that the sense of history in these schools contributes to reputation and prestige. By comparison, the average date of establishment for the coeducational boarding schools is 1939¹⁰.

They are also very large schools. The girls' boarding schools have an average enrolment approaching 1,000 and the figure for the boys' boarding schools is closer to 1,500. This compares to an average for all independent schools of a little over 400. They are all high fee schools¹¹ and this combines with the very high enrolments to create extremely well resourced schools and this adds further to their reputation and prestige. By comparison, the average size of the coeducational boarding schools is 780¹².

List 2: Australian Boy's Independent Boarding Schools

Boys' Boarding Schools	Established	Enrolment
The King's School	1831	1527
The Hutchins School	1845	943
St Peter's College	1847	1241
Scotch College	1851	1880

⁹ A further 26 have changed status from single sex to coeducation, meaning that only 8 of the 100 oldest schools in the country were established as single sex schools.

¹⁰ Note that the existence of a number of recently opened non-mainstream schools in the coeducational boarding school list has skewed this data to some extent.

¹¹ Fees range from around \$10,000 for tuition in the lowest fee schools in Queensland to over \$30,000 for tuition in the highest fee schools.

¹² The 4 smallest (non-mainstream) schools have been discounted from these figures.

Hale School	1858	1433
Melbourne Grammar School	1858	1789
Ipswich Grammar School	1863	1079
Newington College	1863	1884
Brisbane Grammar School	1868	1436
Prince Alfred College	1868	1051
Toowoomba Grammar School	1875	1215
Shore	1889	1580
St Joseph's Nudgee College	1891	1454
The Scots College	1893	1810
The Armidale School	1894	588
Guildford Grammar School	1896	1176
Scotch College	1897	1385
The Southport School	1901	1398
Brisbane Boys College	1902	1575
Christ Church Grammar School	1910	1602
Anglican Church Grammar School	1912	1799
Trinity Grammar School	1913	1988
Cranbrook School	1918	1411
Knox Grammar School	1924	2304
Canberra Grammar School	1929	1525

List 3: Australian Girls' Independent Boarding Schools

Girls' Boarding Schools	Established	Enrolment
St Catherine's School	1856	641
St Vincent's College	1858	620
Toorak College	1874	669
Presbyterian Ladies' College	1875	1172
Wilderness School	1884	737
Abbotsleigh	1885	1332
Wenona School Ltd	1886	1016
Ascham School Ltd	1886	1030
Presbyterian Ladies' College	1887	278
Kambala	1887	903
Rockhampton Girls' Grammar	1892	337
Ipswich Girls Grammar School	1892	850
St Michael's Collegiate School	1892	726
Walford Anglican School for Girls	1893	664
Melbourne Girls' Grammar School	1893	844
St Margaret's Anglican Girls School	1895	800
New England Girls School	1895	253
St Hilda's Anglican School for Girls	1896	1154
Loreto Normanhurst	1897	880
Tara Anglican School For Girls	1897	694
Somerville House	1899	1280

Girls' Boarding Schools	Established	Enrolment
Ravenswood School For Girls	1901	1068
Perth College	1902	1071
Methodist Ladies' College (Perth)	1907	1092
Methodist Ladies' College (Melb)	1907	2056
Fairholme College	1908	758
The Glennie School	1908	815
St Hilda's School	1912	1154
Frensham School	1913	311
Presbyterian Ladies' College	1915	1136
Pymble Ladies' College	1916	2115
St Mary's Anglican Girls' School	1921	1347
Canberra Girls' Grammar School	1926	1443
St Ursula's College	1931	717
Fahan School	1935	337
Penrhos College	1952	1134

List 4: Australian Coeducational Boarding Schools

Coeducational Boarding Schools	Established	Enrolment
Launceston Church Grammar School	1846	706
Geelong Grammar School	1855	1415
The Geelong College	1861	1164
Wesley College	1866	2927
The Hamilton and Alexandra College	1871	484
All Saints College	1875	472
Rockhampton Grammar School	1881	1314
Scotch Oakburn College	1886	1014
The Friends School	1887	1265
Townsville Grammar School	1888	1459
Barker College	1890	1971
Clayfield College	1902	880
Carmel Adventist College	1907	222
Ballarat and Queen's Anglican Grammar School	1911	1303
Toowoomba Anglican College and Preparatory School	1911	376
The Cathedral School of St Anne and St James	1917	1040
The SCOTS PGC College	1918	455
Calrossy Anglican School	1918	930
Blackheath and Thornburgh College	1919	182
All Soul's St Gabriel's School	1920	375
Scotch College	1922	601
Gippsland Grammar	1924	912
Huntingtower School	1927	619
St Peter's Lutheran College	1945	2119

The Scots School	1946	276
St Paul's College	1948	252
The Peninsula School	1961	1369
St Philip's College	1965	646
Kormilda College	1968	785
The Scots School	1972	612
Pembroke School	1974	1560
Kinross Wolaroi School	1975	1016
Dalby Christian College	1981	271
The McDonald College	1984	290
The Kooralbyn International School	1985	220
Margaret Jurd College	1985	30
Christian Aboriginal Parent Directed School	1988	93
Whitsunday Anglican School	1988	808
Shalom Christian College	1988	297
The Kilmore International School	1990	349
Hills International College	1993	415
Peace Lutheran College	1994	614
New Generation College	1995	113
Snowy Mountains Grammar School	1996	254
Marrara Christian School	1998	458
Great Southern Grammar	1999	746
Djarragun College	2001	381
Karalundi Aboriginal Education Centre	1954	52

Australian Schools that have Changed Status

A total of 25 coeducational day schools and 21 coeducational boarding schools have been created from what were originally single sex schools. Of the 21 boarding schools, 13 were created through the amalgamation of two or more schools and the remaining 8 introduced coeducation to a single school. The average enrolment of these boarding schools is a little over 900, well under the average of both boys' and girls' boarding schools, suggesting that enrolment pressure was a factor in the decisions to introduce coeducation or create coeducation through the amalgamation of schools.

List 5: Australian Independent Boarding Schools that have Changed Status

School	Estab'd	Stud's	Status Change
The Hamilton and Alexandra College	1871	484	1962 - The Hamilton and Western District Boys' College and Alexandra College amalgamated
The SCOTS PGC College	1918	455	1970 - the Scots and PGC colleges amalgamated

Gippsland Grammar	1924	912	1971 - St Anne's Church of England Girls School and Gippsland Grammar amalgamated
The Scots School	1972	612	1972 - Albury Grammar School and Woodstock Presbyterian Girls School amalgamated
Scotch College	1922	601	1972 - coeducation introduced
Ballarat and Queen's Anglican Grammar School	1911	1303	1973 - The Ballarat Church of England Grammar School for Boys and The Church of England Girls' Grammar School amalgamated
Pembroke School	1974	1560	1974 - Kings College (boys) and Girton Girls' School amalgamated
Kinross Wolaroi School	1975	1016	1975 - Wolaroi Methodist Boys College and Kinross Presbyterian Ladies' College amalgamated
Barker College	1890	1971	1975 - introduction of coeducation
The Geelong College	1861	1164	1976 – introduction of coeducation
Geelong Grammar School	1855	1415	1976 - the 'Hermitage' and Clyde School amalgamated with Geelong Grammar School
Rockhampton Grammar School	1881	1314	1976 coeducation introduced
All Saints College	1875	472	1976 coeducation introduced
Blackheath and Thornburgh College	1919	182	1978 - Blackheath College and Thornburgh College amalgamated
Wesley College	1866	2927	1978 - coeducation introduced
The Cathedral School of St Anne and St James	1917	1040	1978 - coeducation introduced under a new Diocese of North Queensland
Scotch Oakburn College	1886	1044	1979 Scotch College and Oakburn College amalgamated
Launceston Church Grammar School	1846	706	1981 Launceston Grammar School and Broadland House Church of England Girls' Grammar School amalgamated
All Soul's St Gabriel's School	1920	375	1990 - All Soul's School for boys and St Gabriel's School for Girls amalgamated

The Scots School	1946	276	1997 coeducation introduced
Calrossy Anglican School	1918	930	2006 - The three campuses of Calrossy, Tamworth Anglican College and William Cowper amalgamated

The Place of TAS The Armidale School stands out in the list of boys' boarding schools. Whilst its date of establishment fits with this group, TAS stands out in terms of location, size and the lack of waiting lists.

The boys' boarding school list is dominated by large metropolitan schools. TAS is less than two thirds the size of the next smallest boys only boarding school and 60% smaller than the average. TAS is one of only 2 non-metropolitan schools¹³ in the list of 25 and Armidale is by far the smallest. The other regional school is Toowoomba Grammar, located in the provincial capital of the Darling Downs with a district population of 160,000. TAS is around half the size of Toowoomba Grammar¹⁴ in a city with a population of less than 25,000.

Specific information is not readily available on the state of waiting lists and vacancies for schools. However, it is known that many of the single sex boarding schools have waiting lists, particularly for day students. TAS has never been in this situation.

Similar to TAS, both NEGS and PLC appear somewhat out of place in the list of girls' boarding schools. They are the smallest of the girls' boarding schools and sit alongside Frensham (311), the Fahan School (337) and Rockhampton Girls' Grammar (337) as the only Girls' boarding schools with fewer than 500 students.

Whilst the list of girls' boarding schools is more diverse than the boys' list, including a number of small regional schools, the observation that the smallest boy's boarding school and the two smallest girls' boarding schools are in the same regional centre with a population of less than 25,000 is significant. Whilst single sex schools in Hamilton, Warwick, Sale, Ballarat, Orange, Charters Towers, Townsville, Bathurst and Tamworth have amalgamated to form coeducational schools, the Armidale independent boarding schools have not.

¹³ Ipswich Grammar has not been included in the list as Ipswich has a population of some 180,000 and is only 40kms from the Brisbane CBD.

List 6: Australian Regional Coeducational Boarding Schools

Co-educational Boarding Schools	Est'd	Enrol't	Location	Co-ed
The Hamilton and Alexandra College	1871	484	Hamilton	1962
All Saints College	1875	472	Bathurst	1976
Rockhampton Grammar School	1881	1314	Rockhampton	1976
Townsville Grammar School	1888	1459	North Ward	
Ballarat and Queen's Anglican Grammar School	1911	1303	Wendouree	1973
Toowoomba Anglican College and Prep School	1911	376	Toowoomba	
The Cathedral School of St Anne and St James	1917	1040	Mundingburra	1978
The SCOTS PGC College	1918	455	Warwick	1970
Calrossy Anglican School	1918	930	Tamworth	2006
Blackheath and Thornburgh College	1919	182	Charters Towers	1978
All Soul's St Gabriel's School	1920	375	Charters Towers	1990
Gippsland Grammar	1924	999	Sale	1971
The Scots School	1946	258	Bathurst	1997
St Paul's College	1948	252	Walla Walla	
St Philip's College	1965	646	Alice Springs	
The Scots School	1972	612	Albury	1973
Kinross Wolaroi School	1975	1016	Orange	1975
Dalby Christian College	1981	271	Dalby	
Whitsunday Anglican School	1988	808	Beaconsfield	
Snowy Mountains Grammar School	1996	254	Jindabyne	
Great Southern Grammar	1999	746	Albany	

The only other regional centre that has retained both boys' and girls' single sex boarding schools is Toowoomba. Those schools; Fairholme (girls – 758), Glennie (girls – 815) and Toowoomba Grammar (boys – 1,215) have a combined enrolment of 2,788. This compares with PLC Armidale (girls – 278), NEGS (girls – 253) and TAS (boys – 588) with a combined enrolment of 1,119. At two and half times the enrolment, the Toowoomba schools clearly have significantly greater economies of scale and significantly less natural pressure to combine. Whilst Toowoomba retains single sex boarding schools, it is also served by two independent coeducational boarding schools; Downlands Sacred Heart College (secondary only – 694 students – 254 girls and 440 boys) and Toowoomba Anglican College and Prep School (TACAPS – formerly Toowoomba Prep and now extending to Year 12 – enrolment figures not available). The existence of two coeducational boarding schools in Toowoomba as well as single sex boarding schools highlights a breadth of choice not available in Armidale.

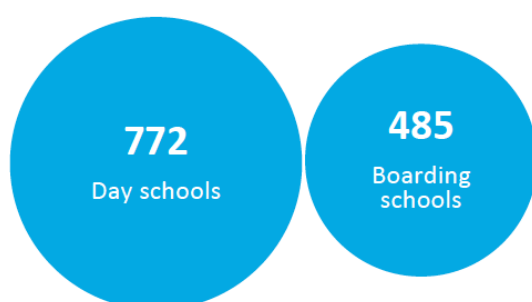
This leaves the Armidale schools in a unique position in Australia and highlights the fact that every other regional centre in Australia that has faced the sort of enrolment pressure on its boarding schools that Armidale faces has seen its boarding schools either amalgamate or introduce coeducation unilaterally.

The UK Independent School Scene

The UK independent school system provides a good comparison for Australia. There are currently 1,257 member schools of the UK Independent Schools Council and the 512,000 students in independent schools represents just 7% of the total school students in the UK, though this figure rises to 14% for students aged 16 years and over.

This compares to the very similar Australian figures of 1,017 independent schools and a total enrolment of 510,000. 14.3% of total enrolments and 18.6% of senior secondary enrolments.

With around 39% of UK independent schools offering boarding and a total of nearly 70,000 boarders enrolled, the UK independent school sector features boarding much more prominently than does the Australian independent sector. By comparison, Australia has 148 boarding schools with an enrolment of a little over 16,000.



Source: Independent Schools Council 2014 Census

Boarders		
Boarders (boys)	37,822	7.4
Boarders (girls)	30,631	6.0
Total	68,453	13.4
Day pupils		
Day pupils (boys)	223,756	43.7
Day pupils (girls)	219,719	42.9
Total	443,475	86.6
All pupils		
Total (boys)	261,578	51.1
Total (girls)	250,350	48.9
Grand Total	511,928	100

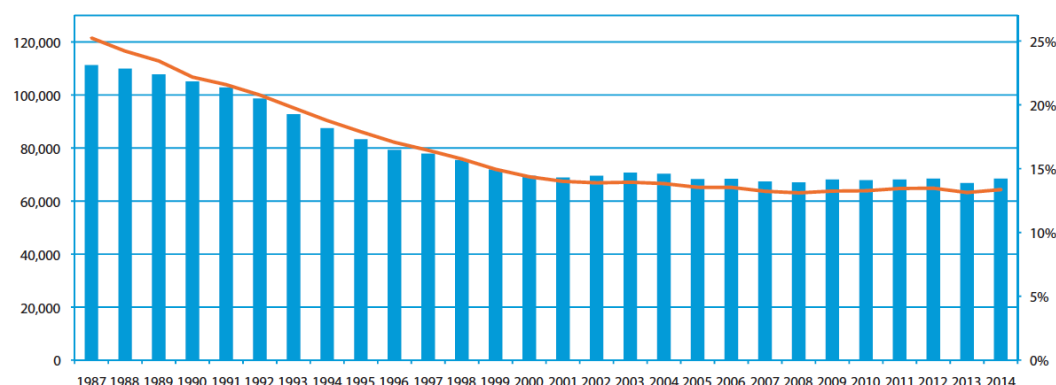
Source: Independent Schools Council 2014 Census

Whilst boarding numbers in the UK are strong by comparison to Australia, enrolments of boarders declined significantly through the 1980s and 1990s. Since 2000 they have plateaued both in number and percentage of total enrolments.

The trend toward coeducation has been even stronger in the UK than it has in Australia. A report on the coeducation debate in the Observer newspaper in 2006 stated: "In the last decade 130 independent schools that were single sex have either become coeducational or closed down. In the state sector the number of

single sex schools has fallen in the past 40 years from nearly 2,500 to just over 400.¹⁵

Fig 17. Boarders at ISC schools 1987-2014



Source: Independent Schools Council 2014 Census

Gender

956 Co-ed schools

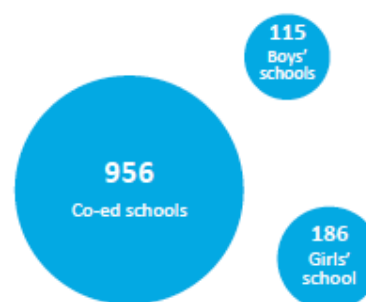
Schools that do not fall into either the category of Boys' or Girls' Schools

186 Girls' schools

Schools with no boys in year groups above Nursery

115 Boys' schools

Schools with no girls in year groups above Nursery



Source: Independent Schools Council 2014 Census

As the graph of independent school data below shows, this trend has continued strongly since 2006 for both girls' and boys' schools. This is significant as there does not seem to be any strong correlation to enrolment pressure overall. In 1994, there were 466,000 students in Independent Schools Council schools, around 46,000 less than today. Boarding numbers have decreased by 20,000 in that time, but given the overall growth in enrolments, this appears unlikely to explain the fact that the number of single sex schools has fallen dramatically.

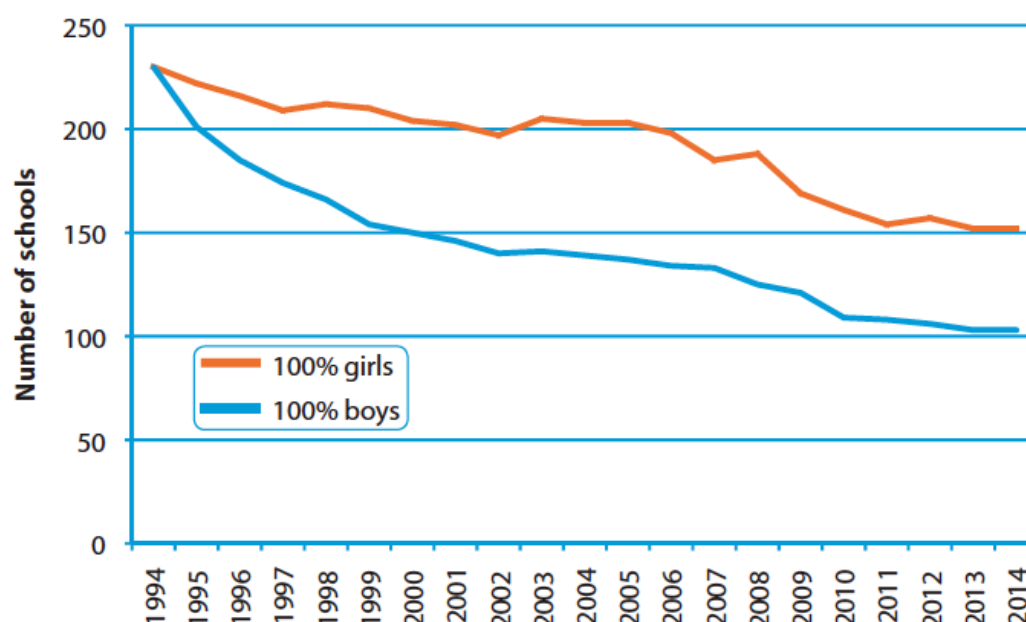
UK independent schools have been growing in size though and are around one third larger today than they were, on average, in 1985.¹⁶ Taken together, the growth in total enrolments, growth in size of schools and significant decline in the

¹⁵ Asthana, A: *The Observer*, 25.6.2006

¹⁶ Independent Schools Council 2014 Census, p.4

number of single sex schools supports the contention that growth has occurred through the shift to coeducation.

Fig 13. Number of exclusively single-sex ISC schools 1994-2014



Source: Independent Schools Council 2014 Census

Whilst this trend is very strong, country-wide and across government and independent sectors, it does not appear that this trend is being driven purely by a belief in coeducation for education's sake. In referring to the Smithers report, the same Observer article states; "Fifty years of research into the subject does not support the 'bold claims' made by the heads of these schools... 'There are no overriding advantages for single sex schools on educational grounds,' said Smithers... 'Studies all over the world have failed to detect any major differences.'" As Smithers and Robinson argue; "There are excellent single sex schools and excellent coeducational schools. Our conclusion is that they are excellent for reasons other than that they separate, or bring together, the sexes for their education."¹⁷

Similar features appear when looking at the independent boarding school sector where the trend toward coeducation is again more pronounced in the UK than it is in Australia. Whilst very many of the UK's old boarding schools were established as single sex schools, there are now only 24 boys-only boarding schools and 48 girls-only boarding schools. By contrast there are now 257 coeducational boarding schools in the UK.

As is the case for the UK school sector generally, this domination in numbers does not appear to equate to any consensus that coeducational boarding is 'better' than

¹⁷ Smithers, A and Robinson, P: The Paradox of Single sex and Coeducational Schooling. Centre for Education and Employment Research. University of Buckingham. p.31

single sex boarding. The 4 remaining boarding only schools (Eton, Harrow, Radley and Winchester) are amongst the biggest in the country.

Smithers and Robinson attribute the trend toward coeducation to forces other than educational benefits; “But while solid evidence is lacking the mood in independent education in England continues to swing in the direction of coeducation. The independent sector operates as a market and, therefore, this trend presumably has something to do with parental preferences.”¹⁸

Experiences of English Schools that have Changed Status

In June, 2014, interviews were conducted with six UK schools that have made the transition from boys’ schools to fully coeducational schools in the reasonably recent past. The schools were selected with a view to providing both diversity within the group and relevance to the position of TAS.

The diversity is seen in the mix of rural schools and those in large regional centres, schools that began with coeducation in sixth form and expanded, schools that amalgamated and those that simply grew, diamond model and traditional coeducation structures and schools that chose coeducation for educational reasons and those that were facing enrolment and financial pressures.

The relevance to TAS comes as all were originally boys’ schools, all are boarding schools, all are regional or rural and all have history that makes their alumni significant stakeholders.

Table: UK Schools Visited

Name of School	Est'd	Full Co-ed	Size	Boarders	Notes	Website
The King's School, Rochester	604AD	1992	640 (3-18 years)	56	Introduced co-education in 1984.	http://www.kings-rochester.co.uk
Lancing College	1848	2000	536 (13-18 years)	321	Girls enrolled in 6th form in 1970s. Full co-education introduced in 2000.	http://www.lancingcollege.co.uk
Oundle School	1556	1990	1111 (11-18 years)	859	Oundle School and Laxton School were reunited as a single education establishment.	http://www.oundleschool.org.uk
Berkhamsted School	1541	1997	1463 (5-18 years)	51	Amalgamated with Berkhamsted School for Girls in 1997 (co-education being introduced)	http://www.berkhamstedschool.org
Cheltenham College	1841	1998	637 (13-18 years)	422	A few girls were admitted in 1969 and then in 1981 when the first girls' house opened, the Sixth Form became fully co educational. In 1998, girls were admitted to all other years, making the College fully co-educational.	http://www.cheltenhamcollege.org
St Edward's School, Oxford	1863	1997	681 (13-18 years)	553	After the Second World War, the School grew ever upwards and outwards and in 1982 welcomed the first girl students into the Sixth Form, followed fifteen years later by full co-educational status. Currently there are about 660 pupils at the School, of whom two thirds are boys and eighty percent are boarders.	http://www.stedwardschool.org

Source: UK Independent Schools Council

Motivation for the Change

Of the six schools researched, only Oundle makes the claim to have introduced coeducation for purely educational reasons. In 1990 Oundle had capacity enrolments, was financially buoyant and enjoying a reputation as one of the country’s leading boarding schools for boys, as it had done since the start of last century. The decision to introduce girls to the School was reported to have come from the recently appointed headmaster of the time, David Turner, who believed that a coeducational environment would benefit the whole school.

¹⁸ Ibid.

That there was no economic imperative to introduce coeducation at Oundle makes it the exception in this group of schools and, it is believed, unusual amongst schools more generally that have introduced coeducation. In contrast to Smithers and Robinson (quoted above) reference to parental preferences as driving the market, all schools other than Oundle spoke of the introduction of coeducation as a response to a tightening enrolment market. More specifically, reference was made to the economic downturn of the early 1990s and the impact that had on the 'school roll'. This is not to say that it was believed that the economic downturn would be long-term, but it was assumed that similar conditions would occur in the future and long-term strategy should reflect that understanding. There was general agreement that, in those circumstances, they simply could not afford to continue to neglect half the market. Even at Oundle, the comment was made *"when the school hit the recession of '94, coeducation kept it moving ahead"*.

This is not to say that the schools that quoted enrolment pressure and financial security as motivations did not believe in the educational benefits that coeducation offers. In every case there was an obvious zeal for the benefits that coeducation presented to students and the School as a whole. As the St Edward's headmaster said, *"The single most important reason to introduce coeducation is that it produces better 25 year olds than single sex does. It is an article of coeducation faith"*.

Issues in Transition

All six schools planned for the change over an extended period, generally between one and two years. The planning structure in each school involved sub-committees with specific briefs such as discipline, uniform, boarding, meals, academic subjects, communication and the like. Much of this planning involved consideration of problems and resistance to the change and all schools reported that their worst fears were not realized. Lancing College reported that, *"Over two years of planning all possible problems had been considered. None eventuated."* The general experience was that girls and boys get on well naturally and that the change seemed 'natural' very quickly.

Cheltenham College reported that, *"A lot of softly ingrained notions had to be challenged, such as the pre-eminence of boys' sport"* and *"Boys perceive the girls are treated more favourably – this is common in coeducational schools"*. This sense of inequity was echoed elsewhere, especially where what were previously boys' boarding houses were changed to girls' houses and where new and better girls' boarding houses were built. Similar inequity favouring boys, such as the pre-eminence given to boys' sport in terms of facilities and timing, did not gain similar attention.

The approach to boarding house access varied significantly between schools, though each appeared to believe that their model was the obvious and natural conclusion. At Oundle School, electronic security limits entrance to any boarding house to those who live or work there. At Cheltenham College, students from outside the boarding house, including the opposite gender, are allowed to visit at designated times and in designated public areas of the house. At Lancing College, the old traditions of free access to any boarding house, including bedrooms, was continued unrestricted when coeducation was introduced.

Changes to catering were noted in all schools, with predictable focus on both the style of meals served to cater for girls and the new attention to eating disorders. This flowed into new challenges in pastoral care, with different approaches to supporting girls and boys in pastoral matters needed. Stereotyped differences were reported at a number of schools, such as girls recovering from personal conflict with either staff or other students more slowly than boys and girls responding less favourably to forceful direction or discipline.

The importance of staff belief in the good sense of the introduction of coeducation was consistently reported as the most important factor in successful transition. Where staff had genuine 'buy-in', the transition was much smoother and this was reported as flowing through to students, parents and alumni as well.

Impact of the Change

All schools actively investigated the impact that the introduction of coeducation had on their academic performance and this is not surprising given the focus on league tables that prevails in the UK school scene. All schools reported that they had become more academic over the past decade or two, but none was willing to attribute this to the introduction of coeducation. It was recognised that girls bring an academic diligence that can be less prevalent in boys' schools, but the growth in the performance of boys was not seen as the result of the good influence of the girls. Rather, it was believed that the greater focus on exam results at both GCSE and A Levels has caused independent schools to sharpen their academic focus. Exam performance is seen as a measure of 'value for money' in high fee boarding schools and the pressure to achieve is now higher than it has ever been.

The introduction of coeducation has, predictably, broadened the activity base of each school. New activities such as zumba, keepfit and trampolining have found their way into the co-curricular program and subject selections have caused changes in the staffing mix.

Several schools reported a 'softening' of culture in both boarding houses and the school more generally. As Oundle put it, the culture became *"less regimented and less hierarchical, in line with societal change generally"*. In the boarding environment, fewer rules were needed, there was more personalizing of spaces and more parent involvement.

Advice Offered

Advice on the planning process was clear in terms of vision, focus, consultation and the team needed. Senior staff at Oundle advised the need to set direction and push ahead strongly, saying that, *"a clear vision is needed. Set it out clearly. If you believe in it, go for it. There will be complaints, maybe even uproar, but stay with the vision"*. This focus on challenges along the way was tempered at Lancing College where the advice focused on the natural feel of co-education. *"In hindsight, we would have focused our thinking more on the experience of the pupils than of the staff. For pupils, coeducation is the normal state"*.

Consultation was seen by all schools as central to the likelihood of success for the process. Cheltenham College stated that, *"You need a 360 degree vision of*

stakeholders. All need to be brought on board". In terms of the team needed to drive the change, they said, *"Put together a coeducation action group and make sure to include some of the most conservative on it"*. Comment was also offered on the importance of having the right people in the team. Advice was offered from a number of schools to make sure women are involved in the planning of any new facilities and to have a trusted senior woman in the management team.

The Diamond School model in the UK

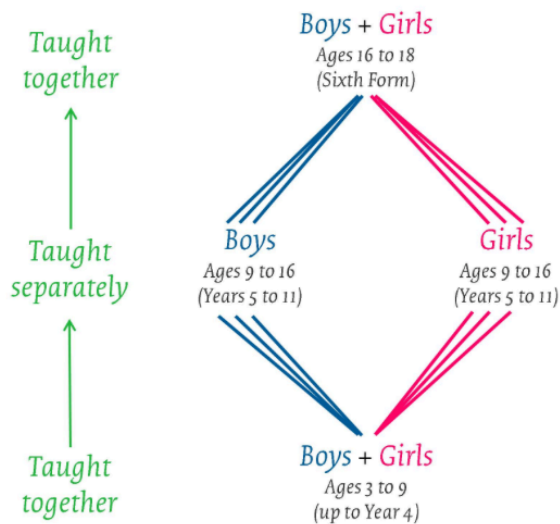
Twelve UK independent schools have adopted what has become known as a diamond model. The diamond model combines both single sex and coeducational teaching, typically through a structure incorporating a coeducational early years program (typically until age 11 or 13), separate single sex middle years programs (typically from 11 or 13 to 16 years) and a coeducational Sixth Form.

The UK diamond schools (details in appendix 6) are:

Berkhamsted School:	http://www.berkhamstedschool.org
Brentwood School:	http://www.brentwoodschool.co.uk/home
Dame Allan's Schools:	http://www.dameallans.co.uk
Erskine Stewart's Melville Schools:	http://www.esms.org.uk
Forest School:	http://www.forest.org.uk
The King's School (Macclesfield):	http://www.kingsmac.co.uk
The Grammar School at Leeds:	http://www.gsal.org.uk
New Hall School:	http://www.newhallschool.co.uk
Teesside High School:	http://www.teessidehigh.co.uk
The Royal School (Haslemere):	http://www.royal-school.org
Stephen Perse Foundation:	http://www.stephenperse.com
Stamford Endowed Schools:	http://www.ses.lincs.sch.uk/

Diagram: Source: <http://www.teessidehigh.co.uk/senior/teesside-high-school-diamond-model/>

The Diamond Teaching Model



Diamond schools are often the product of the merger of a boys' and a girls' school, enabling the school to have girls and boys taught separately on different sites. In most cases the boys and girls will combine outside the classroom in academic or other school trips and in some co-curricular activities, such as music, community service, cadets and the Duke of Edinburgh Award scheme. Thus boys and girls are able to maintain a healthy level of social contact that means it is possible to develop friendships with those of the opposite sex.

The diamond model is said to have additional benefits, including convenience for parents as effectively they provide a "one-stop" drop at school from pre-school to senior years or catch the same bus. The main advantage espoused though is that diamond schools are able to retain what are claimed to be many of the positive characteristics of small schools, as each part is often of a size that will allow each student to know everyone in the school, whilst enjoying the benefits of an infrastructure and economies of scale of a much larger school.

Detractors of the diamond model point to what they see as two key problems;

1. If there is a genuine belief in the benefits of coeducation, then separating boys and girls in the 11 to 16 years period is a contradiction. If coeducation is the appropriate educational structure, then the school should commit to it in complete fashion.
2. It is readily accepted that the ages 11 to 16 years are generally the most challenging in terms of behaviour, engagement with school and differences between the genders. However, proponents of full coeducation argue that it is all the more important that girls and boys should be educated together at this challenging time. This is an important time in terms of intellectual and emotional development and most likely to be productive in terms of the formation of understanding of the opposite gender and development of healthy relationships.

The issue of resourcing for diamond schools is complex. When two single sex schools combine, the diamond model allows the schools to use a complete set of

capital resources and this is attractive when compared to the prospect of a single school growing organically and using debt to create new capital infrastructure. However, operating two campuses clearly creates higher recurrent costs on a permanent basis. This will vary depending on the distance between the campuses, but even if they are very nearby, management of each one will create higher overheads. Further, where one campus is larger than the other as a result of disparity in the numbers of boys and girls, then the benefits of economies of scale that come with the amalgamation are diminished.

Whilst consideration of the long-run results for the school are central to arguments regarding commitment to coeducation and recurrent cost structures, the socio-political environment surrounding the amalgamation or transition cannot be ignored. There seems little doubt that coeducation in both junior years and the final two years of school attracts less debate than does coeducation in the middle years. The societal perception that boys and girls are happy to mix in pre-adolescent years and that this is a healthy situation appears to be widely held. Similarly, the perception that senior students of 17+ years are mature enough to come together again for the serious business of study toward matriculation also appears to be widely held. So, the separation of the middle years has appeal as a compromise between maintenance of the most critical elements of the status quo with coeducation introduced only in the years that seem to intuitively most suited to it.

The diamond model decision is a complex one, incorporating educational, economic and socio-political influences. Whilst the readily communicated benefits of tailoring the educational offering in the middle years to what most suits each gender at that developmental stage is always the focus of the message, it is clear that the attraction of available capital resources and the relative ease of the change must feature in the decision.

It is also noted that the Middle School movement that has gained such traction in North America was created in an almost exclusively coeducational environment. That so many schools choose to separate the middle years from other years, but not the sexes at that age and stage of development is significant. This is the same philosophy that the TAS Middle School was built on and whilst TAS has obviously focused on boys, the Middle School philosophy is certainly not a boys' philosophy in any way.

Benefits of Coeducation Experienced

Regardless of the reasons for introducing coeducation, the socioeconomic status of the school, current enrolment health or location of the school, all six schools reported an almost identical list of benefits from the change. From these lists, four common experiences can be identified:

- Growth – including subject choice, enabling teachers to focus on their specialized subject area and the financial benefits of economies of scale.
- Diversity – coeducation was identified as a type of social diversity and consistently spoken of as a benefit for boys and girls alike. Some schools

specifically stated that coeducation seemed to raise the level of maturity amongst the student body.

- Academics – all schools reported that their academic performance had improved since coeducation had been introduced, but none attributed this to either the superior academic performance of girls or their influence on the boys. Rather, the improvement was attributed to the greater maturity in the student body and the aspirational nature of the decision to introduce coeducation and the focus that brought. There was a general sense that the decision to see the school evolve impacted on performance in a range of areas, including academics.
- Student wellbeing – all schools made comments regarding an improved ‘feel’ in the school that had come with the introduction of coeducation, though each school expressed this in different terms. There was comment that boys and girls mixing was immediately natural and appreciated by the students, comment that the behavioural tone of the school had improved and comment that the school was a happier place. None of this was documented and it had not been measured in any of the schools, but the fact that all reported factors related to student wellbeing as improved is significant.

Part 3: Recommendations for TAS

The Current Enrolment Landscape for TAS

Central to this project is the understanding that TAS enrolments have remained relatively stable over the past decade at levels that mean the School has been operating below capacity overall. Boarding enrolments have been steady at 200 over the past 12 years and are well above this level in 2015, but the growth in day enrolments experienced in the decade from 2001 to 2010 has slowed over the last 4 years. Total secondary enrolments in 2015 are at their highest level since 1994, but primary enrolments are down and the School remains below capacity in total.

Despite significant fluctuations in primary enrolments over the past 15 years, the maintenance of boarding numbers at over 200 (around 90% capacity – 94% in 2015) for an extended period is certainly encouraging. Regional boarding scholarships have been clearly important in maintaining the strength of boarding enrolments in a challenging rural economic climate.

Enquiry levels suggest that enrolment interest in the School remains strong. Marketing of the School from the Enrolments and Development Offices, including the Country Tour, boarding expos, Registrar’s tours, Open Day and the use of media, is now more sophisticated and extensive than ever before. When this is considered alongside the demand for regional boarding scholarships, it appears that the capacity to lift enrolments further through greater commitment to marketing alone must be limited.

Prospects for future boarding enrolment growth are constrained by two important factors; the contraction of girls’ boarding in Armidale and the economic prospects of the region. In 2003, TAS enrolments in K-12 were 547, with 202 boarders. At the

same time, combined enrolments at PLC and NEGS in K-12 were 727 with 287 boarders. 2013 K-12 enrolments reported on the My School website were 253 for NEGS and 278 for PLC, totaling 531 for both schools, as compared to 588 for TAS.¹⁹ Current boarding numbers are believed to be around 150 boarders between the two schools. The decline in girls' boarding of almost 50% is troubling. Statements made to our Enrolments Office indicate that TAS loses around 5 potential boarding enrolments each year for the given reason that those families have chosen another location, usually Sydney, for their girls, necessarily taking male siblings with them. In difficult economic times, this is impacting on the health of TAS and it is clear that a remedy must be found. It is not known whether similar comments are made at the girls' schools, but regardless of this, from the unilateral perspective of TAS, the simple fact that there are far fewer girls now boarding in Armidale than there were a decade ago is a problem to be addressed.

Both the current conditions and immediate prospects for the economies of the New England / North West and Armidale indicate constrained growth and there is no doubt that the recent drought will impact the region's economy for some years.

Key points:

- Population now increasing, though varying markedly across Northern Inland NSW.
- Most growth is in the towns.
- The number of children aged less than 15 years continues to decline, while the number of people aged over 65 years continues to increase (a 12% increase since 2006).
- There has been a small increase (0.8%) in the key working-age population (25-65)
- High and steadily increasing rates of care dependency across the region.
- Indigenous people comprise a greater proportion of the region's population than the State average and have increased by 16.2% between 2006 and 2011.
- Compared to all NSW, the Northern Inland has a high proportion of jobs in industry sectors that are declining and not enough in faster growing sectors.
- The region has low levels of University qualified residents, but high levels of trade qualified workers compared to the NSW average.
- The region has several of NSW's most socioeconomically disadvantaged areas.

Source: Regional Profile – Northern Inland NSW.
http://www.rdani.org.au/files/pages/our-region/regional-plan/RDANI_regional_plan_2013_Appendix_1.pdf

¹⁹ Enrolment figures for 2003 were supplied directly from NEGS and PLC. Figures for 2013 total enrolments are taken from the MySchool website and the boarding figure is an estimate based on reports from both schools.

Scenario Development

The challenges of the Armidale and New England / North West economies are clear, but the development of strategies for the future of TAS remain heavily constrained by uncertainty. These uncertainties include the future possibilities for the girls' schools. In light of this uncertainty, future scenarios should be developed that work through possibilities and identify one or more preferred futures for TAS.

These scenarios should include those developed by the Association of Independent Schools NSW (AIS) in their 'Options Paper'. The AIS is the peak body representing the independent schooling sector in NSW. It provides a wide range of services to member schools and administers and manages a range of government funded programs for all NSW independent schools. The AIS was contacted initially by TAS for this research, but conducted it independently and no payment was made for the work. It was the view of the AIS that the anomalous position of Armidale independent education and the interdependence of three AIS member schools meant that its work should be entirely independent, rather than a commissioned study.

Their two scenarios are described as follows:²⁰

“Scenario 1

That TAS and NEGS merge to create a single-entity co-educational school with a strong vision for independent co-educational day and residential schooling in Armidale.

Scenario 2

That TAS becomes a fully coeducational K-12 school alone, with a strong vision for independent co- educational day and residential schooling in Armidale.

Note: Scenario 2 should not be read as privileging TAS over NEGS: rather, the history of single-sex schools becoming co-educational alone shows this transition is less resisted and more easily achieved in boys' schools becoming coeducational, rather than the reverse. Recent examples are St Ignatius College in Adelaide (1994) which became the only co-educational Jesuit school in Australia, reversing a sustained decline in enrolments and academic achievement. In 1998 Pulteney Grammar, a boys' school in Adelaide since 1847, went fully co-educational alone following the failure of a merger with Woodlands Anglican Girls' School. The post co-educational outcomes for Pulteney mirror that of St Ignatius. Far fewer girls' schools, if any, have made the shift alone; this suggests there are greater cultural barriers and heightened levels of community resistance to girls' schools becoming co-educational.”

²⁰ NSW Association of Independent Schools: The Armidale School : Options Paper 2015

The AIS paper concludes that:

Each scenario presents opportunities and risks, but doing nothing is probably not an option, at least in the long term, given that the recovery of lost enrolments since 2003 is unlikely. A re-visioning of independent schooling in Armidale is necessary, and co-education in one of the Scenarios suggested is the vehicle most likely to deliver sustainable independent schooling in Armidale into the future.²¹

Conclusion

Despite extensive comparative research into the experiences of single sex and coeducational school structures and studies of schools that make the transition from single sex to coeducation, it is not reasonable to claim that either structure is superior on education grounds alone, no matter how broadly those grounds may be defined. What are commonly considered to be the 'best' schools in the English speaking world are found in both structures and it does not appear that the choice of single sex or coeducational structure presents any barrier to quality schooling.

Defining what makes a 'good school' will be impacted by the context of the school, its demographic, values and identity. For TAS, the defining elements of being a 'good school' are seen in the top five reasons for choosing TAS reported in the 2010 Macquarie Marketing Group survey;

- Quality of teaching
- Focus on student wellbeing
- Balanced challenging education
- Academic standards
- Range of different subjects.

The issue of single sex or coeducation does not impact on any of these determinants of quality. Indeed, in the 2010 survey, the 312 parents responding ranked *Boys Only (6-12)* 23rd of the 24 possible reasons for choosing the School.

The march toward coeducation in recent decades has been inexorable though and it is apparent that the choice of coeducation when establishing new schools and the decisions of existing schools to amalgamate or otherwise introduce coeducation are driven by factors other than educational argument. Whilst the driving motivation for introducing coeducation in individual schools is often clouded by educational rhetoric, it is clear that enrolment considerations and the educational benefits that come with growth and more robust financial structures have been major factors in almost all cases.

Nowhere is this clearer than in regional Australia where Armidale and Toowoomba now stand alone as the only centres with single sex independent boarding schools remaining for both boys and girls. At one-sixth the size of Toowoomba, Armidale with its three single sex independent boarding schools stands out as an enigma in the Australian landscape. This identity is reinforced by the pressures of negligible

²¹ Ibid

population growth in Armidale, regional reliance on a variable agricultural economy and growing competition in the independent school market.

The benefits of growth are clear and well reflected in the move to coeducation across both the Australian and UK independent education landscapes. Improvements in subject breadth, subject choice, teacher specialization, support services, co-curricular offering and facilities are all apparent in growing schools.

Whilst TAS has maintained boarding enrolments at over 200 for the past decade, the reputational strength currently being enjoyed suggests that it is likely that this represents something close to the full potential of the School in its current structure. Day enrolments have been under pressure in recent years and economic conditions in Armidale indicate that this is likely to continue. Overall, the prospects of growth within current structures are very limited. This leaves TAS with the choice of adjusting its operations and offering to a smaller scale or introducing coeducation as a means of growing. Combined with the benefits of growth, the demand from parents of girls for access to a TAS education, including academic, co-curricular and outdoor education offerings, means that the option of growth through coeducation appears both feasible and attractive.

It is argued here that this decision should be based on the ambition of continuous improvement of the School for the benefit of students and their families. The suggested mechanism for making the decision is scenario development using 'planning with foresight' strategies and based on choices within both single sex and coeducational futures. Whether the choice is to make significant structural adjustment to school operations to enable financial stability in a lower enrolment environment or to grow the School by introducing coeducation, it is important that the decision is made now, rather than allowing the impending contraction of enrolments to dictate reactive strategies. It is equally important that the decision is made in consultation with the full breadth of the School's stakeholder groups; the Company Members, school staff, current and future parents, students, the Anglican Diocese, Old Boys, the TAS Foundation and community interests. The importance of having stakeholder 'buy-in' to this decision makes it critical that the consultation take place before any decision is made privately by the Board.

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