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Navigating the muddy waters of the research into single sex classrooms in co-educational middle years settings

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Abstract

Establishing single sex classes within co-educational sites is an option that Australian schools are again exploring. To date Australia has experienced three 'waves' of interest in establishing single sex classes, the first focused on equitable education opportunities for girls (Alloway & Gilbert, 1997), the second centered on boys' literacy and engagement (Gilbert & Gilbert, 1998) and this current wave focuses on perceived difference between the sexes in co-educational classrooms (Protheroe, 2009; Gurian, Stevens & Daniels, 2009). With the intersection of middle schooling movement, focusing on learner centered classrooms (Pendergast & Bahr, 2010) and current educational agendas aimed at improving student performance and measurable learning outcomes (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008), it is understandable that schools are exploring such student grouping options. However, after thirty years of international research into the efficacy of single sex classes in co-educational settings, the results still remain unclear. This paper seeks to navigate the 'muddy waters' of this body of research and suggests a framework to help guide school communities through the decision-making process associated with considering single sex classes.

Introduction

This paper explores and summarizes the research on the efficacy of single sex classes (SSC) in co-educational settings. Public interest has been reignited on the topic of implementation of single sex classes in co-educational schools. Internationally there has been dramatic increase in the implementation of single sex classes, particularly in the U.S. where the Department of Education published new rules allowing for single-sex classes (Vanze, 2010). Here in Australia we have seen the recent three year pilot of single sex classes in Western Australia (Department of Education and Training WA, 2009). In Queensland there have been a number of schools which have trialled the use of single sex classes, public interest in such pilots can be seen in news items such as: Queensland teachers, parents to decide on single sex education (Wordsworth, 2011); Single-sex classes gain momentum as schools opt to segregate (Caldwell & Pierce, 2010); and the recent Single-sex class trails in Queensland state schools to be extended after good results (Chilcott, 2011). As interest into the possibilities offered by SSC rises, this paper seeks to provide insight into the complex debate of implementing SSC in co-educational settings using current empirical and theoretical research to inform school based decision-making. This paper summarizes the definitions, assumptions and findings in the literature to provide a framework to make informed decisions about possible approaches to grouping students. As such, it positions the debates around SSC as an opportunity to consider the context, the subject, the staff and the specific cohort rather than merely grouping students using the category of female or male.

We finish with implications for schools, research and education and a framework that may help those who may be considering single sex classes.

The ‘waves’ of interest in single sex classes in Australia

This latest focus on establishing SSC in Australia is the third wave of interest following the initial wave that was in response to calls for equity in girls’ educational opportunities in the 1970s (Alloway & Gilbert, 1997), and

the second wave in the mid 1990s which was interested in focussing on boys’ engagement levels with learning (Gilbert & Gilbert, 1998). Table 1 summarises the key concerns within the literature associated with the use of SSC. These concerns include issues such as the reinforcement of binarized stereotypical views based on sex and gender, as well as the under-representation of either sex in particular subject areas.

While SSC have been implemented in response to equity for girls and also as a reaction to concerns about boys’ education, the current interest

Table 1: Historical background to current interest in single sex groups in co-educational schools

	Girls’ education movement	Boys’ education movement
Key concerns in literature	under representation of girls in high status subjects such as science and maths (Schools Commission, 1975; Commonwealth Schools Commission, 1984, 1987). traditional school practices re-enforcing stereotypical views of male and female roles (Schools Commission, 1975; Commonwealth Schools Commission, 1984, 1987) and that teachers spent more time in class with boys than girls (Gill, 2004).	boys’ lower levels of literacy (House of Representatives Standing Committee on Education and Training, 2002). higher incidence of suspension and exclusion for boys (House of Representatives Standing Committee on Education and Training, 2002). boys’ disengagement with learning as evidenced by increasing rates of disruptive and aggressive behaviour and low levels of motivation (House of Representatives Standing Committee on Education and Training, 2002; Lingard et al., 2002).
Suggested strategies	Single sex classes, particularly in the high status and high stakes subjects of maths and science (Alloway & Gilbert, 1997).	Single sex classes, particularly in the areas of English and literacy (House of Representatives Standing Committee on Education and Training, 2002).

revolves about perceived inequity between the sexes in co-educational classrooms (see Protheroe, 2009; Gurian, Stevens & Daniels, 2009). The most often cited concern is the potentially negative influence that male students can have on female students in the classroom (Gilbert & Gilbert, 1998; Jackson, 2010; Mael, 1998; Younger, Warrington & McLellan, 2005), with female students reporting being intimidated by the male students in their co-educational middle years classrooms (Warrington & Younger, 2000). Alongside this is the evidence of differential treatment of the sexes in co-educational classrooms, including female students receiving less teacher attention and learning support (Corbett, Hill & St. Rose, 2008; Marshall & Reihartz, 1997). Teachers allow male students to call out more often and talk for longer, seek their responses more often, and give them more detailed feedback to improve their learning outcomes (Bailey, 1992; Sadker & Sadker, 1994). While the disparity of treatment could possibly be explained as teachers attempting to engage the more disruptive boys, there is data that indicates that it is the more competent boys who are benefitting from additional teacher attention (Eccles & Jacobs, 1986).

The potent combination of such concerns, along with a call for more learner centred approaches to education (Watterson, 2001) and/or engaging boys in learning (Watterson, 2001; Love & Townsend, 2002) would appear to suggest that for schools seeking to improve educational engagement and outcomes for all students, SSC might be a strategy to consider. Therefore, it is timely to investigate the international research around the use of SSC in co-educational settings. Drawing on a government

commissioned report, (Tuovinen, Aspland, Allen, Crosswell & lisahunter, 2008), this paper navigates the very muddy waters of the past thirty years research investigating SSC and suggests parameters for co-educational schools considering implementing this grouping approach.

Acknowledging contested and hidden assumptions: a caution to reading findings

The purpose of this paper is to investigate the efficacy of SSC in co-educational contexts. However, when we initially analysed the research literature in 2008 it became apparent that a set of assumptions that underpinned the research potentially acted as limitations to the research and research findings. It is important to first define some of the terms that are often taken for granted, terms such as sex and gender, girls and boys; the concepts that underpin research findings and even the very nature of what is being asked. By doing this, the contested and problematic assumptions and terminology used in the literature are acknowledged here and in the rest of the paper.

Sex

The term ‘sex’ refers to categorisations using binarized biological and physiological differences to form two distinct groups, female (genetically XX) and male (genetically XY). While these are often taken to be clearly defined and natural categories there is evidence to the contrary (Diamond & Sigmundson, 1997) Firstly, there is at least one other biological category, although not widely acknowledged, that

is those individuals categorised as ‘intersex’ (Cawadias, 1943). The term ‘intersex’ refers to those individuals who may have biological characteristics of both male and female; be genetically XY but present anatomically as male; have an extra X or Y chromosome; or have ambiguous genitalia. A review of medical literature from 1955 to 1998 aimed at producing numeric estimates of the frequency of sex variations, approximated that the number of people whose bodies differ from standard male or female is one in a hundred, with one or two in every thousand receiving surgery to ‘normalise’ genital appearance (Blackless, Charuvastra, Derryck, Fausto-Sterling, Lauzanne, & Lee, 2000).

Secondly, while classification of students according to their biological sex into only female or male may seem relatively simple, Fine (2011) argues that there is more difference within each category than there is between the two categories, making such classifications simplistic and divisive rather than complex, blurred and diverse. The third assumption as discussed by Fausto-Sterling (2000), is that sex (biologically constructed) is often conflated, made synonymous with, or assumed to be tightly linked to, gender (socially constructed), a point explored further below.

The foundational assumption that underpins the single sex classrooms literature is that females and males have different learning needs and behaviours in the classroom. Thus, this assumes that by identifying an individual’s biology and physiology one can generalise about their learning needs and behaviours. In this paper we are considering the literature investigating the efficacy of the use of such a strategy,

acknowledging that the literature is using a grouping technique based on a biological category that silences individuals outside the binary of female/male, ignores the various individual characteristics, and attributes within each sex and does so within an unproblematised and naturalised biology/physiology framework.

Gender

Since the 1970s the term gender has been used to categorise, often in relation to social or cultural contexts, rather than biological ones. The concept of gender is a socio-cultural construct that delineates which characteristics are to be considered as masculine or feminine. Therefore, the terms 'man' and 'woman' are societal constructs that carry with them certain expectations and classifications that shift over time and space. The term 'woman' in a twenty-first century technological Western society means different things than does woman in a non-technological Samoan society or nineteenth century English society. *Woman* in different types of societies at different times brings to mind different things. Many would argue (see Diamond & Sigmundson, 1997; Fausto-Sterling, 2000), that gender, more so than sex, should be recognised and accepted as a fluid variable that shifts and changes in different contexts and times. Consequently, while a person's sex, as female or male, is a biological description that would be recognized by biology and anatomy in almost any culture, a person's gender role or representation as a woman or a man in society can vary significantly between cultures.

While we have established that the single sex classroom literature is

largely based on the uncontested assumption that categorisation by biological sex characteristics is unproblematic and appropriate, we also recognise that such an assumption does not acknowledge the associated concepts of gender as a socio-cultural construct that delineates what characteristics are to be considered as masculine or feminine. Practically, in a classpace¹, what might this mean for males in the class who might identify with so called feminine behaviours or roles? Or females who enjoy learning through physical play? Or a group of females and males who work more productively with each other rather than in all-male or all-female groupings? Within the current research literature such individuals are unrepresented.

Girls and boys

A third categorization that warrants mention is one that evokes age and/or maturity as a subcategory or characteristic. While terms such as 'female' and 'masculine' point to the language of sex and gender respectively, there is further confusion and muddying of the waters with terms of 'girl' and 'boy', again binarized terms commonly used to differentiate individuals but based on sex and/or gender and age in various combinations. Such categories make unsupported assumptions around responsibilities, rights, capacities, dispositions, societal positioning, and physical, social, emotional, spiritual and mental characteristics.

¹ Classpace is defined as pedagogical spaces where students and teachers work but recognises that these are not confined to a classroom (Iisahunter, 2007).

Contested assumptions – do girls and boys learn so differently?

Certainly the most contentious issue within the SSC debate is the assumption that girls and boys learn very differently from each other. While we caution against the adoption of simplistic and dichotomous understandings of sex and gender, which serve to reinforce essentialist notions of what is to be 'male' or 'female', we acknowledge the support for this belief in both in the academic literature (see Costa, Terracciano & McCrae, 2001; Feingold, 1994; Pomerantz, Altermatt, & Saxon, 2002) and popular culture (see Gray, 1992; Brizendine, 2006; Tannen, 1991). A high profile advocate is Leonard Sax, who cites in *Why Gender Matters* (2005), biological and linguistic data that indicates boys and girls see, hear and draw differently, and use different language when responding to certain tasks. He argues that schools should be arranged to respond to these differences and has founded the American-based association called the National Association for Single Sex Public Education (NASSPE). Neuroscience also has advocates support for the notion that males and females have different brain development and therefore have different learning needs (see Nagel, 2010). However, these beliefs are currently being challenged from within the field of neuroscience, with research that indicates that males and females are more alike than they are different (Hyde, 2005; Halpern, et al., 2011).

Importantly for schools, there is a group of educational researchers suggesting that the ongoing debate about the differences between the sexes is divisive and serves

to reinscribe stereotypes (see for example Groundwater-Smith, Mitchell & Mockler, 2007; Lingard et al., 2002). Significantly for the readership of this particular journal, the middle schooling literature does usually not differentiate between learners on the basis of sex or gender, instead suggesting that most learners in their middle years of schooling respond well to common pedagogical approaches such as heterogeneous and flexible student groupings, learner centred classrooms and cooperative and collaborative learning (Carrington, 2006). Lingard et al. (2002) too, warn against taking a simplistic position and they advocate for a more complex and considered view to be taken when schools are comprehensively researching what strategies are effective, for which students, as well as investigating

the circumstances under which these strategies are successful. Consequently, a position is taken here that aligns with the broader middle years literature (Knipe & Johnstone, 2007), which argues pedagogical approaches should be responsive to the learning needs of the specific cohort rather than based on simplistic and broad generalisations about sex-based learning preferences, sometimes masking gender and age-based assumptions, that are not necessarily applicable to any one class group. Thus the complexity that surrounds the issue of SSC is revealed, and, by acknowledging the contested and hidden assumptions, we also expose the politics that can be associated with sustaining these simplistic categories. If education

is to build inclusive and equitable communities then teachers must challenge their educational communities, as well as the young people they work with, to move beyond the binaries of sex and gender categories. We argue that the inclusive role of school communities needs to include understanding, acknowledgement and support for students who are not recognised within the categories of male or female, girl or boy. Schools also should challenge limited notions of who one can be and what one can do, to ensure that there are equitable educational opportunities of young people in our schools during their middle years. Having identified, defined and unpacked (to some extent)

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the foundational assumptions that underpin the literature discussed in this paper, we highlight the issues in seeing terms such as sex and gender, girls and boys, in simplistic terms. Therefore, attention is drawn to the contested nature and problematic assumptions and terminology used within the particular literature as well as the current paper.

Research methods and procedures

The commissioned report, *Advantage through structured flexibility: Operations of Schooling Review* (Tuovinen et al., 2008), investigated the impact of a range of schooling variables, including campus composition, school size, student groupings and flexibility in timetabling and attendance, on student outcomes. The review was conducted across a wide range of databases (e.g. ERIC and A+) that targeted English language academic and government published research since 1965, with an emphasis on literature published after 1990. The review sought to undertake a meta-analysis of the literature; however, the researchers found that the different combinations of factors and/or research approaches of the existing literature meant a meaningful meta-analysis was not possible². Consequently, the findings were not inherently and independently strong. In the case of the efficacy of single sex classes, the findings are unclear and are dependent upon complex contextual influences coming together (often in unclear ways), hence the use of the term ‘muddy’ in the paper’s title.

² For the full description of the methodology and approaches used in the review refer to Tuovinen, Aspland, Allen, Crosswell and Iisahunter (2008).

Table 2: Positive outcomes for Single Sex Classes

	Positive Findings in the Research
Single sex grouping in co-educational schools can:	<p>decrease self-consciousness about work, and enhance participation and willingness to take risks in class (Ferrara, 2005; Gilmore et al., 2002; Sukhnandan, Lee and Kelleher, 2000; Seitsinger, Barboza & Hird, 1998; Warrington and Younger, 2000; Wills, 2003).</p> <p>enhance learning outcomes (Shapka & Keating, 2003), particularly for boys (Gierl, 1994; Rowe, 1988; Gilmore et al., 2002).</p> <p>alleviate possible tensions between the sexes and enables a more cohesive learning environment (Wills, 2003)</p> <p>enable the teacher to develop a more effective understanding and control of the class’s social structure (Wills, 2003).</p> <p>reduce disruptive behaviours both in the classroom and the playground (Ferrara, 2005; Sukhnandan, Lee & Kelleher, 2000; Wills, 2003)</p> <p>develop healthier and more supportive relationships between students and their teachers (Sukhnandan, Lee & Kelleher, 2000).</p> <p>have benefits for cultural minority groups, particularly boys (Hudley, 1999).</p>

What does the literature say?

The literature that contributes to the SSC discussions in co-education settings comes from the UK, North America and Australia over a thirty year period. The research investigates the use of SSC in co-educational schools where students are grouped according to their sex for the entire curriculum, selected subjects, or special programs for a specific period of time. While much of it was undertaken in the 1980s through to the early 2000s, there continues to be significant international concern about equitable education opportunities for both sexes, evidenced by three recently commissioned reports; *Separate but superior? A review of issues and data bearing on single-sex education* (Bracey, 2006), *Strategies to address gender inequities in Scottish schools* (Forde, Kane, Condie, McPhee and Head, 2006) and *Gender and education:*

The evidence of pupils in England (Department for Education and Skills, 2007). While these reports reviewed a common body of literature and discussed emerging implications for their specific education systems, it is Bracey (2006) who offers a fine-grained critique of the existing claims, and chosen methods of the single sex education literature. Interestingly, the three reports take slightly different positions on the evidence of efficacy of SSC. *Separate but superior?* (Bracey, 2006), and *Gender and education: The evidence of pupils in England* (Department for Education and Skills, 2007) both found the evidence for SSC to be inconclusive. With Bracey (2006) arguing that a set of questions must be considered by schools contemplating the use of SSC, which include ‘What are the rationales for the program? Gender equity? Differential brain function? Recruitment of girls

into curriculum areas historically avoided?’ (p. 39). The questions posed by Bracey (2006) will be explored in more detail later in this paper. Forde, et al., (2006), who suggest that, while there are potential benefits, the implementation of SSC must be undertaken with caution and careful consideration. Thus, the similarities are that these three recent reports are equivocal in their findings, with calls for careful consideration and need for justification around the take up of SSC.

Efficacy of SSC

Establishing clear empirical evidence for the efficacy of SSC is problematic. This is best exemplified by Rowe’s (1988) and Rowe, Nix and Tepler’s (1986) work that compared SSC and co-

educational mathematics classes in an Australian co-educational site using a true experimental design. The initial results were strongly supportive of SSC, but a later analysis of the same data, undertaken by Marsh and Rowe (1996), found there was limited support for SSC and that some of the more significant effects favoured co-educational classes. While some researchers contend that there is little consistent support for SSC in co-educational schools (Department for Education and Skills, 2007; Marsh & Rowe, 1996), there are other studies claiming positive outcomes from the implementation of SSC approaches. As documented in Table 2, reported positive outcomes range from increased engagement to improved learning outcomes, particularly for boys, as well as decreased behavioural issues.

Table 3: Effects of single sex classes in specific curriculum subjects

Subject area	Research
Single sex classes in Mathematics	<p>improve student learning outcomes (Dollison, 1998; Gierl, 1994; Gilmore et al., 2002; Rowe, 1988; Shapka & Keating, 2003; Sukhnandan, Lee & Kelleher, 2000)</p> <p>decrease discipline issues (Smith, 1996)</p> <p>enhance student engagement, confidence and self-esteem (Dollison, 1998; Gierl, 1994; Gilmore et al., 2002; Marsh & Rowe, 1996; Rowe, 1988; Smith, 1996)</p>
Single sex classes in Science	<p>improve student learning outcomes (Shapka & Keating, 2003; Smith, 1996; Sukhnandan, Lee & Kelleher, 2000)</p> <p>encourage girls to take more science subjects during their high school education (Shapka & Keating, 2003)</p>
Single sex classes in English	<p>improve student learning outcomes (Gilmore et al., 2002; Sukhnandan, Lee & Kelleher, 2000)</p> <p>increase student engagement (Gilmore et al., 2002)</p>

However, there also exists strong cautions within the literature that indicate all-male classes require teachers to have higher levels of classroom management skills and these classes have a higher incidence of teacher stress and burn out (Baker & Jacobs, 1999; Cavanagh, Mollon & Della, 2001; Sukhnandan, Lee & Kelleher, 2000). Indeed, the research into SSC presents inconsistent findings on a number of levels, making the navigation of the conflicting and ‘muddy’ claims difficult. Having looked at the general findings around the use of SSC in co-educational sites we now turn to a discussion that narrows the evidence to specific subject areas.

Effects of SSC in specific curriculum subject

The effectiveness of SSC has also been investigated in specific subject areas, with most research being carried out in Science, Mathematics and English subject areas. While there is contention that the use of SSC is of little benefit (as discussed above) other research suggests there may be improvements in overall student learning outcomes and increasing student engagement in these specific subject areas (see Table 3).

The use of SSC in English, Science and Mathematics has received some, though hardly unequivocal, research support. Such results might warrant investigations into the use of SSC in other subject areas, being mindful of who benefits from such a student grouping and how they benefit. Understanding the key influences at play in each context is important, for the impact of SSC may not be the result of the grouping strategy itself, but indicative of other processes at work such as the

teacher, the teacher's orientation to pedagogy and student relationships, or the multiple disadvantages that some students deal with on a daily basis.

The teacher as the critical element for SSC

While there are tensions in the current literature around the efficacy of SSC in co-educational sites, what is evident from the research is that the critical mediating variable, as with all educational reforms, is the teacher. For effective outcomes in SSC the teacher must differentiate the curriculum to cater for the range of abilities within the class (Cavanagh, Dellar & Mollon, 2001; Ferrara, 2005; Love & Townsend, 2002) and at the same time employ appropriate pedagogical approaches, depending on the specific needs of the class (Ferrara, 2005; Smith, 1996; Sukhnandan, Lee & Kelleher, 2000; Wills, 2003). When teachers do not differentiate curriculum or fail to employ pedagogies that are responsive to the specific cohort, then challenges can arise. This can happen particularly in all-boy classes, which contributes significantly to teacher burnout, student dissatisfaction, and reduced student engagement and achievement (Baker & Jacobs, 1999; Forde et al., 2006; Watterson, 2001). Thus, the teacher's ability and willingness to differentiate and to use appropriate pedagogies are critical variables in the effectiveness of SSC.

Implementing any new initiative, such as SSC, requires a concerted focus on an individual's teaching practice at a personal, school and community level. It has been argued that it is the combination of teacher focus on pedagogical choices and the perception (or

reality) of high stakes outcomes that ultimately contributes to the improvement in outcomes for SSC (Younger et al., 2005). This phenomena, where the attention and focus on the new idea brings about an improvement, for a confined period, is referred to as the 'Hawthorne Effect' (Clark & Sugrue, 1991) and has been posited by some researchers as being responsible for the reported positive effects of SSC (Smithers & Robinson, 2006).

While the potential impact of the 'Hawthorne Effect' adds to the muddying of the SSC research findings, it does highlight the importance of the teacher in any new classroom reform. Teacher involvement, understanding and ownership are imperative for effective classroom reform. Preparation to undertake an initiative of this nature should include extensive discussions not only with the wider school community, but also critically with the involved teaching staff about the rationale and benefits of the suggested innovations (Warrington & Younger, 2000). The strong consensus in the literature that the teacher is the critical element in the effective uptake of SSC has implications for those considering SSC approaches, as well as implications for research, practice, and policy.

Discussion for schools considering the use of SSC

As we have demonstrated throughout this paper, the international evidence around the use of SSC is problematic, inconclusive and 'muddy'. For schools looking for decisive evidence to guide their thinking around the use of SSC, we direct

them to consider some of the questions emerging from the literature. These include broad questions such as:

- What works for whom, and under what circumstances? (Lingard et al., 2002)
- Why consider a SSC program? Is a SSC approach the only alternative? (Protheroe, 2009).

It also includes the fine grained and specific questions raised by Bracey (2006) in regards to considering the implementation of SSC that include, but are not limited to:

- What are the goals (cognitive, affective and behavioural outcomes) of taking a SSC approach?
- Are SSC the best way to accomplish this goal?
- What are the costs and trade-offs of establishing SSC?
- Is sex segregation a means of reaching gender equity or a tool for increasing test scores?
- What are the rationales for using SSC? Gender equity? Differential brain function? Recruitment of girls into curriculum areas historically avoided?
- Has the school administration 'bought in'? Has the faculty? Have the parents?
- Will a program of professional development built around the goals of the SSC be provided for administration and faculty?

In amongst these emerging questions, there are others that are prompted and they are sufficiently important to be brought to the attention of schools investigating the possibility of SSC. These other questions have been raised in order to highlight the complexity of the underlying assumptions, the foundational beliefs and values and the potential impact of

implementation that underpin such discussions. It is argued that schools must ask questions such as:

- What definitions and assumptions are held around the terms sex and gender, the characteristics we ascribe to each, and how do these play out in our school practices?
- How do sex and gender define who can learn, how they learn and why?
- How do sex and gender interact with other identity categories and why?

How are categories such as female/male, girl/boy, woman/man, feminine/masculine inclusive or exclusive useful or not useful? What other categories such as age or ethnicity are employed, explicitly or implicitly, and what are the effects on learning? In regards to unpacking the potential practical impact of undertaking SSC, we posit that schools consider questions such as:

- Who benefits from the current approach to student grouping and how?
- In what ways might SSC enhance learning and for whom?
- Is SSC appropriate overall or relative to/appropriate for particular subject area changes for now?
- What part do teachers play in student learning in differentiated classspaces and to what extent is any form of social engineering enhancing their efficacy in student learning?
- How do we know? What reflexivity, critique and systematic data collection informs us of the effects of our practices?

Seeking answers to such questions will assist schools in considering some of the complexity surrounding the possibility of SSC approaches. We look forward to engaging with schools that seek such rigour.

In conclusion

This paper investigates the issues around the implementation of single-sex classes in co-education schools by excavating the language and assumptions behind the approach and summarizing the literature that informs such a strategy. The analysis of the literature suggests there is no 'right' answer due to the multiple variables that could be playing out in any classspace. However, the current body of research does suggest specific factors a school should consider as a way of increasing the usefulness of SSC in their context. As a middle years community claiming to have the learners' interests central to schooling, it is necessary to ensure that any implementation of SSC also includes critical and reflective research practices to capture 'what is going on'. Sitting behind the seemingly simple question of single sex classes in co-education schools, is the much more complex socio-political issue of assumptions about sex and gender. It is argued here that embedded within the SSC debate there is opportunity for middle years communities to create more equitable and inclusive educational contexts for all young people. Such a social construction would create a brighter future for all students, regardless of who they want to identify as, and a more fluid space for learning and learning in which all middle years students may flourish. As we emerge from the muddy waters of the SSC literature, our position is

to highlight the complexity that sits behind the current discussions and to celebrate the complexity, fluidity and differentiation evident in the middle years of schooling. We call on schools to build on from the current research literature to understand the part that sex and gender plays for young people wanting to learn in their middle years of schooling.

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