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Making Better School Choice Decisions:
Aligning Students with Schools based on Socialisation Styles

Russell G. Pitcher, M.Ed., B. Psych., Dip. Teach.

Supervisors: Dr. Elaine Chapman and Professor Stephen Houghton

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Dedication

To Geraldine, Matthew, Timothy and family for their love and enduring support.

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Abstract

In the present study, a person-environment fit perspective was taken to explore how the social attributes of schools (specifically, their socialisation styles, based on a typology derived from the parenting styles literature) and the internal attributes of students (specifically, their preferences for different types of school contexts) correlated with student engagement levels. The primary aim of the study was to investigate the relationship between students' engagement levels and the degree of alignment between their socialisation preferences and the socialisation styles of their schools. A secondary aim was to determine whether any relationships observed could be attributed to students' perceptions of the quality and quantity of the support offered by schools.

Five schools in Western Australia participated in the study. In each, the parents of all Year 8 students (n = 306) were asked to complete a measure of school climate, which was then used to classify the schools using Maccoby and Martin's (1983) school socialisation framework. The students of these parents (n = 275; 156 males, 119 females) then completed survey instruments indicating: (i) their socialisation preferences; (ii) their levels of engagement with school, using the indicators described earlier; and (iii) their perceptions of the autonomy, learning, and social supports their schools provided.

Five specific research questions were addressed: (1) Can WA secondary schools be classified into distinct socialisation types?, (2) Can students be clustered into distinct groups based on their preferences for contextual demandingness and responsiveness?, (3) Is there a relationship between boys' engagement levels and their alignment with their school's socialisation type?,

(4) Is there a relationship between girls' engagement levels and their alignment with their school's socialisation type?, and (5) Do perceptions of school supports mediate the links between student-school alignment and engagement?

Results indicated that: (1) based on parents' ratings of schools' levels of demandingness and responsiveness, the five schools that participated in the study could be distinguished into four socialisation styles; (2) students' preferences for different schooling contexts could be classified in terms of socialisation constructs; (3) boys' engagement levels (as indicated by measures of academic motivation, intrinsic motivation, mastery approach goals, outcome expectancies, and life satisfaction) were correlated with the degree of alignment between socialisation preferences and school socialisation styles; (4) girls' engagement levels varied to a lesser extent with the degree of alignment between socialisation preferences and school socialisation styles; and (5) students' perceptions of school support significantly mediated the relationships between student-school alignment and student engagement.

Recommendations for practice for parents, school personnel, and education policy-makers are proposed on the basis of the results. Directions for future research that would extend upon the study findings are also discussed.

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Chapter 1. Introduction

As a professional doctorate, the research reported in this thesis was designed primarily to make a significant contribution to professional practice within the Western Australian school system. As a teacher and school psychologist, I have dealt extensively with students in this system who need additional help in making the transition from primary to secondary schools. In my professional practice, I noted that different engagement approaches were required to motivate different types of students. Some just got on with the learning with minimal teacher input, while others drew heavily on the teacher-student relationship as a source of inspiration. Others enjoyed the social interaction involved in completing tasks, while some were resistant and actively avoided schoolwork.

In dealing with these students, I found that by adjusting my instructional approach to mirror students' learning approaches, I was able more readily to engage all learners. My experience in this field provided a catalyst for the research reported in this thesis. The propositions put in the thesis reflect an integration of knowledge from three major sources: (i) my own professional experience as a teacher and school psychologist, which spans a period of over three decades; (ii) policy documents and other published information on the Western Australian education system; and (iii) theories and findings presented in the scholarly research literature.

The research reported in this thesis represents an effort on my part to address a growing problem for parents and schools within Western Australia (WA). With various shifts in state policies, recent years have witnessed an increase in the options available to parents in WA in terms of secondary schooling.

Whilst this, on the surface, appears to represent a positive step toward making education more democratic, the outcomes of these shifts will depend heavily on how parents make their school choice decisions. In general, these decisions will rest largely on published information about average academic performance. At present, parents have access to very little information on which to compare schools in terms of outcomes within the affective and psychological domains. In exercising their right to choose the schools that their children attend, therefore, parents are likely to make decisions exclusively on the basis of 'easy to observe' indicators such as proportions of graduating students who gain entry to further education, and other achievement-based outcomes.

The arguments and findings presented in this thesis call for a more holistic, child-centred focus in school choice decisions, which prioritises school engagement outcomes as a central consideration. The research reported here was geared fundamentally toward examining relationships between the degree of alignment between students' preferences for different school contexts and the attributes of the schools they attend.

This introductory chapter provides a general orientation to the remainder of the thesis. Notions of school choice in the WA system are first discussed, alongside some of the debates that have emerged around increases in schooling options for families. A brief review of factors that parents consider in choosing schools for their children is then presented. The next two sections present an argument for a focus on student engagement as a basis for school choice decisions, and a consideration of some contextual factors that have been found to influence student engagement levels. The chapter concludes with an overview of the thesis structure.

1.1. The policies and politics of school choice in WA

Issues surrounding school choice are currently topical in many Western democracies, with many education systems now providing an increased number of schooling options to parents. In Australia, the past decade has seen a marked increase in the public's appetite for alternatives to traditional public schools. For example, between 1998 and 2008, enrolments in independent schools in Australia grew by 21.9%, compared with public school growth of 1.1% (Australian Bureau of Statistics, 2008). In 2004, some 34% of public school parents polled by the *Australian Council for Educational Research* indicated further that they *would* choose an independent or private school if money was not an issue. It is clear from these trends that parents are increasingly demanding that the system as a whole provide diversity in terms of schooling options.

Initiatives to increase parents' rights to choose the schools that their children attend are often grounded in the assumption that this will precipitate organisational reform. The typical premise of such initiatives is that market forces will 'incentivise' underperforming schools to 'raise their game' to avoid closure through low enrolment numbers. In WA, three major types of schools are now available at the secondary level: *comprehensive public schools*, which are government-funded and administered; *private schools*, which are typically single-gender and fundamentally self-governed; and *independent schools*, which are predominantly faith-based and administered outside of the public domain by organisations such as *Catholic Education* and the *Independent Schools Association*.

Public schools are funded by the government and do not attract attendance fees, although parents are expected to provide consumables such as books, stationary, and uniforms. Independent schools charge an attendance fee, which makes these around 10 times more expensive to families than public schools. Private schools have variable fee structures which make these, in some cases, over 20 times the cost of attending a public school. The latter two types of school generally justify their relatively high costs in terms of the extra facilities and curricular options they offer to students.

Within each of the two *non*-government systems listed above, parents in WA can choose the specific school in which they wish to enroll their children. In late 2012, however, local public school enrolment boundaries in WA were closed, effectively eliminating any *real* choice of public schooling for most families. Currently, families that can afford to do so either enroll their children in non-government schools, or are forced to move suburbs to be eligible for entry into their public school of choice. Although this state government policy somewhat limits meaningful debate about school choice in WA in the short-term, the candidate believes that the needs of civil society will eventually force government to acknowledge that *real* school diversity and choice are core strengths of public education that should be promoted.

School attendance traditions in WA have historically been based on a social class system inherited from British beginnings. These traditions have been largely consistent with school attendance profiles in the secondary sector across the country as a whole. As late as 2003, Le and Miller reported that in Australia, the children of working class parents attended co-educational public schools; the children of professional parents attended single-gender private schools; and the children of parents who fell somewhere between

these points attended co-educational independent schools. In the late 1990s, however, the economic situation in Australia as a whole was such that more families found themselves in a position to send their children to independent and private schools, and the demand for places in these schools increased accordingly. This upturn had the effect of diminishing social class divisions in the enrolment patterns observed previously, by making private and independent school options available to a wider demographic of families.

In more recent times, WA has seen something of a reversal (albeit modest) in these trends. Over the past decade in particular, families who might once have chosen an independent or private school have begun applying instead for entry into high-performing selective public schools (Jensen & Noonan, 2008). This trend reflects myriad influences, including the promotion of scholarships for high-achieving students to attend special entry public schools. Tsolidis (2009) pointed out that in some states of Australia, the level of competition for entry to special-entry public schools was on a par with that for private and independent school places.

As a product of these trends, non-government schools are now bursting at the seams, with competition for places in sought-after public schools is escalating rapidly. For most parents in WA who do not have the resources to send their children to independent or private schools, therefore, the present schooling reality is one of *no* choice. Against this backdrop, polarisation of minorities into low-decile schools, the creation of 'winner' and 'loser' schools, and balancing the competing interests of stakeholders, are inevitable issues that will emerge for policy-makers across the state (see Fiske & Ladd, 2000, for a review).

1.2. Should parents be able to choose schools?

Historically, tensions have been evident amongst key stakeholders in the secondary school arena (e.g., parents, schools, and the governing state education department) around the issues of *who* is best placed to make appropriate school choice decisions. Internationally, debates over whether parents should be able to choose which schools their children attend have been inherently complex, multidimensional and emotionally charged. The main argument in support of parental choice is that this increases competition among schools, which, in turn, is presumed to improve their quality and effectiveness (Hoxby, 2002; Solomon, Park & Garcia, 1999). School reform is presumed to be achieved by simple supply and demand rules – that is, poorly-performing schools will attract fewer students over time, and thus be forced to improve or close, while more effective schools will attract a steady flow of enrolments, and thus flourish.

Arguments against school choice are often driven by political ideology focused on the issues of social justice, equity, and social stratification. School choice has been posed by some to promote social inequities, because families with limited resources (e.g., members of underprivileged racial minority groups) are likely to be excluded from, or exclude themselves from, choosing the best schools (Hsieh & Shen, 2001).

Attempts to address social inequity issues in the US by introducing voucher systems, manipulating the composition of school populations to include minority groups, and the establishment of diverse *Charter Schools* with flexible governance and curricula, have met with modest success. Cullen, Jacob and Levitt (2006) found that even when underprivileged students

gained entry into elite schools through a randomised lottery process, the Year 12 graduation rates of these students remained significantly lower than for those who expected to attend such schools in the first place.

On the *pro*-choice side, some commentators have proposed that democratic equality is best achieved by catering for a multiplicity of *publics* rather than a single *public*. For example, Knight-Abowitz (2001) noted that many citizens were not well-served by traditional public education systems. Thus, social justice for different education publics should promote school arrangements that provide flexibility and autonomy for differing visions of education. In this view, encouraging diversity is a positive step toward rejuvenating schooling systems through increased parental involvement. In this view, irrespective of political imperatives, the maintenance of social justice and equity of access in the schooling system requires the existence of *genuine* school choice. The notion of genuine choice is emphasised here because equity will only exist when parents are able to choose amongst schools of varying quality (Bell, 2009). The latter proposition offers support for governments to refocus attention on fee vouchers, tuition taxation credits, and other strategies to diminish barriers to true parental choice.

For the benefit of each child, it is argued here that parents must be able to choose from broad school 'sets' with minimal constraints. This view supports the notion of developing family-school partnerships in decisions about which schools are suitable for particular children. Governments and families can play equally legitimate, yet distinct, roles in optimising the positive effects of schooling choice for children. Managing the external environmental and logistical constraints (e.g., facilities, staffing, funding, class sizes) in order to maintain an egalitarian education system can be seen as primarily a role for

government. Choosing the school that represents the best 'fit' for any given child, however, is primarily a role of family.

1.3. How do parents choose schools for their children?

A considerable body of research has now accumulated which focuses on examining factors that parents consider in choosing their children's schools. The results reported by these studies have painted an extremely mixed portrait. The disparate results reported in these studies are likely to reflect the influence of many factors, including study characteristics such as sampling and methods used to garner parents' responses (e.g., surveys vs. interviews), as well as the scope of the questions posed by the authors.

In a relatively early study of school choice factors, Goldring and Hausman (1999) identified four primary factors that parents considered important when choosing amongst schools: academic factors; convenience factors; discipline factors; and the value placed on the school by the community. The authors reported that of these, the most important when parents were choosing amongst government schools was convenience (e.g., proximity of the school to home), while academic factors (e.g., the past performance of the school) were most important when parents were choosing amongst non-government schools.

Later, however, Denessen, Driessena and Sleegers (2005) reported results which suggested that the most important factors considered by parents in school choice decisions were religion, social milieu, and ethnicity. None of these factors were identified in the earlier Goldring and Hausman study. Elacqua, Gobierno and Ibanez (2005) then reported results that contrasted

with both previous studies. Elacqua et al. reported eight factors that parents considered in their school choice decisions, based on responses from 530 Australian parents. These were: academic environment/curriculum; location/cost; morals/values; discipline/safety; class or school size; facilities; and student demographics.

Most recently, the factors that parents considered in deciding to enroll their children in private schools were studied by Yaacob, Osman and Bachok (2014). Four major factors were compared in the study. The results indicated that parents choosing amongst private schools tended to emphasise the school's syllabus, environment and facilities in making their decisions, while the past academic performance of the school and the teachers within the school were third and fourth, respectively.

It is clear from this brief review that studies which have investigated the basis upon which parents make school choice decisions have yielded inconsistent results. Most interestingly, very few of the studies conducted to date have explicitly focused upon on the extent to which parents consider children's psychological and emotional wellbeing when choosing amongst schools. The one exception that could be located was an early study reported by Bussell (1998), who indicated that children's happiness was the most frequently cited factor considered by parents choosing primary schools for their children. Thus, it appears that factors within the affective and psychological domains have rarely emerged in studies on parental choice. It is entirely possible that this reflects the fact that parents lack a means by which to conceptualise and ask questions related to these factors, and/or information that they can use in assessing potential schools on this basis.

1.4. Student engagement as an indicator of school effectiveness

There exists a growing global problem of student disengagement in contemporary schooling. In a review of research on student engagement by Dunleavy, Milton and Crawford (2010, p.3), they reported that "Recent data capturing the experience of 64,836 middle and secondary students over three years confirms early findings that a large majority of students begin to disengage from learning in Grade 6 and continue to do so until Grade 9, where levels remain consistently low through to Grade 12" (p.3).

Other internationally-based reviews that appeared have noted similarly that issues of low student engagement remain significant at the middle and secondary school levels (see Parsons & Taylor, 2011). These issues have been acknowledged not only in the academic literature, but also, in the broader public domain. For instance, a recent article that appeared in *Forbes Magazine* announced that "40% of high school students in the US were disaffected at school"[1]. In light of these figures, the authors posed that "policy makers, instead of focusing exclusively on achievement outcomes, should pay more attention to what it takes to increase student engagement".

Conceptualisations of student engagement point consistently to the complex and multidimensional nature of this construct. Amongst the definitions proffered in the education literature, the one posed by Skinner and Belmont (1993) has been cited most widely. Skinner and Belmont stated that:

[1] Retrieved on 22/11/13 from: http://www.forbes.com/sites/jamesmarshallcrotty/2013/03/13/motivation-matters-40-of-high-school-students-chronically-disengaged-from-school/

> Engagement versus disaffection in school refers to the intensity and emotional quality of children's involvement in initiating and carrying out learning activities…Children who are engaged show sustained behavioural involvement in learning activities accompanied by a positive emotional tone. They select tasks at the border of their competencies, initiate action when given the opportunity, and exert intense effort and concentration in the implementation of learning tasks; they show generally positive emotions during ongoing action, including enthusiasm, optimism, curiosity, and interest. The opposite of engagement is disaffection. Disaffected children are passive, do not try hard, and give up easily in the face of challenges…[they can] be bored, depressed, anxious, or even angry about their presence in the classroom; they can be withdrawn from learning opportunities or even rebellious towards teachers and classmates. (p. 572.)

To date, issues of student engagement have received little attention in the literature on school choice and school suitability. This may reflect, in part, the complexity of assessing multi-dimensional constructs of this kind. School engagement is, in fact, a *meta-construct* that describes a constellation of other affective variables (e.g., students' motivation levels and profiles; their psychological need fulfilment; and their outcome expectancies). In their review of literature on student engagement, Gibbs and Poskitt (2010) reported that engagement had been operationalised using all of the following constructs within the research literature:

- Students' connectedness and sense of belonging to school, including measures of students' psychological needs fulfilment;
- Students' sense of agency, involvement, effort, commitment, and concentration;
- Students' motivation and interest in learning;

- Students' outcome expectancies and sense of self efficacy;
- Students' orientation to achievement and performance; and
- Students' self-regulatory processes and skills.

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Given the multi-faceted nature of student engagement, a students' overall school engagement level is likely to reflect an interplay amongst different facets within the constellation. To take an example, intrinsic motivation (i.e., the desire to pursue a goal for its own sake) and psychological need fulfilment (i.e., the extent to which basic psychological needs for autonomy, competency and relatedness are being met) are often-cited facets of school engagement. Using only these two facets, it is possible to imagine a student who is highly intrinsically motivated in a subject area (i.e., "*I enjoy doing math*"), may still be disaffected overall in math classes, because their psychological needs remain unmet in that setting (i.e., "*My math teacher doesn't allow us to do anything independently, so I don't try in this class*"). Thus, to be engaged first requires a level of internalised motivation, while the act of engaging is contingent on the degree of alignment between setting attributes and students' needs and preferences (Connell & Wellborn, 1991).

There are several reasons why student engagement has become a core concern for educators in general, and why (in the view of this author) it *should* become a core focus in any discussions pertaining to school suitability. Chief amongst these is the robust relationship between student engagement and other key schooling outcomes. While most parents consider the overall past academic performance of a school to be of primary importance in their school choice decisions, the figures published in league tables and other such sources are based on averaged results. For any individual student to perform

well in his/her school context, that student must first engage with the activities of that context.

Not surprisingly, numerous studies have affirmed significant positive relationships between student engagement and students' academic outcomes in large-scale studies (see Gibbs & Poskitt, 2010, for a review). Studies of this kind confirm that high levels of student engagement are necessary for school success, irrespective of the particular school setting or level (Walker, Green, & Mansell, 2006). Student engagement has also been found to be a significant predictor of other key schooling outcomes, such as persistence with school, overall wellbeing, intentions to pursue higher education, and longer-term outcomes such as preparedness for working life (see Gibbs & Poskitt, 2010). Underscoring this point, Parsons and Taylor (2011) argued that:

> Students who are bored, restless, disruptive, and disengaged in the short term have clearly documented negative impacts on students, teachers, schools, and communities. However, the greater issue is that students could be graduating incapable of or unprepared for a productive and healthy life within the "Knowledge Society" in which they will live and lead. The negative consequences of this deficit of engagement in learning would ripple across industry and society for generations. If we fail to make changes to our pedagogy, curriculum, and assessment strategies, we fail our students and jeopardize our futures (p. 4).

1.5. Factors affecting levels of student engagement

It is generally assumed by practitioners and scholars alike that schools can make changes to students' learning experiences which will have a positive

impact on student engagement. Gibbs and Poskitt (2011) commented specifically on this point, noting that:

> Engagement is a variable state of being that is influenced by a range of internal and external factors including the perceived value or relevance of the learning and the presence of opportunities for students to experience appropriately-pitched challenge and success in their learning. As such engagement is malleable by the actions of teachers (p.10).

A considerable body of literature has also now appeared on factors that affect student engagement levels. In a review of this work, Zepke, Leach and Butler (2010) cited research at the higher education level which indicated that, amongst other factors, institutions that welcomed and respected students from diverse backgrounds; that offered a wide range of learning support services; and that were prepared to adapt to changing student expectations, tended to produce higher student engagement levels. In a major analysis of factors that affect student engagement, Fullarton (2002) cited both individual and school-level factors that affect engagement at the secondary school level. Fullarton reported that:

- Females tend to report higher engagement levels than males, across all school sectors and achievement levels;
- Students from higher socioeconomic backgrounds and those with professional parents tend to report higher levels of school engagement;
- Students from independent schools report higher levels of engagement than those in Catholic schools, who, in turn, report higher engagement levels than those in government schools;

- Students who plan on enrolling in tertiary study tend to be more highly engaged than those who plan to leave school and go to work;
- Students at single-sex schools tend to be more highly engaged than those at co-educational schools;
- Levels of engagement are higher when students believe that their school has a good school climate (e.g., high quality teachers, effective discipline, high levels of student learning, and a positive school spirit);
- Students who are generally happy with school and with learning (as measured by the positive affect scale) tend to be more engaged than those who are not; and
- Students who are intrinsically motivated (e.g., those who find school work interesting) will generally be more engaged than those who are not so intrinsically motivated.

Whilst previous research has focused on identifying various contextual and student attributes that correlate with student engagement, the present research focused upon a more systemic approach. Specifically, in the present study, a *person-environment* fit perspective was taken to explore how the contextual attributes of school contexts (specifically, their socialisation styles, based on a typology derived from the parenting styles literature) and the internal attributes of students (specifically, their preferences for different types of school contexts) correlated with student engagement levels.

The notion of person-environment fit focuses on the extent to which the attributes of individuals and their environments are aligned (see Kristof-Brown, Zimmerman, & Johnson, 2005). From this perspective, it was deemed that different school contexts may be better suited to different students, and that this would, in turn, correlate significantly with students' engagement

levels. This perspective has the potential to enrich and inform efforts to address student engagement problems in schools, and provide a sound framework for parents to choose schools, based on the extent to which these contexts are suited to their individual children.

1.6. Thesis overview

The overarching aim of this study was to explore correlations between levels of student engagement and levels of alignment between school socialisation styles and students' socialisation preferences. The notion of schools as a critical source of socialisation for students was the primary lens through which the present study was conceptualised.

Following Martinez, Camino, Camino and Cruise (2013) school socialisation styles were defined here as *enduring patterns of behaviour adopted by school personnel in response to different students' everyday behaviours* (p.296). Extrapolating from Darling and Steinberg's (1993) notion of parenting styles, a school's socialisation style establishes the overall emotional climate in which interactions between school personnel and students occur. This climate, according to Darling and Steinberg, is produced through a "constellation of attitudes" (p.488) held and communicated to students, which can include specific, goal-directed behaviours (e.g., disciplinary practices) as well as non-goal-directed behaviours (e.g., non-verbal gestures).

In an effort to identify optimal combinations of school factors that contribute to student success, previous researchers (e.g., Gill et al., 2004; Pellerin, 2005) applied Baumrind's (1967, 1971, 1987, 1991) original parenting style framework to classify different schools into socialisation 'types'. Much of this

work has been based on the socialisation framework posed by Maccoby and Martin (1983), which was based directly on Baumrind's original typology.

Baumrind (1967) originally classified parenting styles based on two major factors: (i) parental *responsiveness*, and (ii) parental *demandingness*. Parental *responsiveness* (also referred to as parental warmth or supportiveness) referred to "the extent to which parents intentionally foster individuality, self-regulation, and self-assertion by being attuned, supportive, and acquiescent to children's special needs and demands" (Baumrind, 1991, p. 62). Parental *demandingness* (also referred to as behavioural control) referred to "the claims parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts, and willingness to confront the child who disobeys" (Baumrind, 1991, pp. 61- 62).

In Maccoby and Martin's (1983) model of school socialisation styles, these terms were extrapolated directly to describe interactions between school personnel and students. Thus, the term *school demandingness* was used to refer to a school's focus on supervision, discipline, and high academic expectations. *School responsiveness*, in contrast, was used to refer to a school's focus on building students' individuality and self-assertion through the establishment of supportive teacher-student relationships.

Baumrind (1967) proposed that parents could be classified into four major 'style types' based on the relative levels of demandingness and responsiveness exhibited in their parent-child interactions:

(i) *Authoritarian* parenting was characterised by high levels of demandingness but low levels of responsiveness. This style was

defined as more adult-centred, with parents displaying low levels of trust toward their children, and discouraging open communication.

(ii) *Permissive* parenting was characterised by low levels of demandingness but high levels of responsiveness. Permissive parents were characterised as warm, accepting, child-centred and autonomy-granting. These parents did not make effort to exert high levels of control over their children, and did not hold strict behavioural expectations on their children.

(iii) *Authoritative* parenting was characterised by high levels of demandingness *and* responsiveness. Authoritative parents were characterised by high levels of interest and involvement in their children's lives. These parents exert behavioural control and monitoring while also providing emotional support, open communication, and trust toward the child.

(iv) *Indifferent* parenting was characterised by low levels of demandingness *and* low levels of responsiveness. Indifferent parents were described as those who did not make effort to support or encourage their child's self-regulation, and did not monitor or supervise their child's behaviour.

Maccoby and Martin's (1983) classification of schools was based on a direct generalisation of this framework to describe the kinds of interactions that occur between school personnel and students. Thus, studies that have applied the framework classified schools into four main types: *authoritarian* (high in demandingness and low in responsiveness), *authoritative* (high in demandingness and high in responsiveness), *permissive* (low in demandingness and high in responsiveness), and *indifferent* (low in

demandingness and low in responsiveness). A small number of studies has now shown that these concepts translate well into schooling contexts (e.g., Pellerin, 2005). The work conducted in the present study extended upon this previous research by not only classifying schools according to Maccoby and Martin's (1983) four-component framework, but also, investigating how students' preferences for different socialisation styles interacted with the socialisation styles of their schools to influence engagement levels.

The remainder of this thesis focuses on describing the background, methods, and results of the study conducted to examine how the alignment between students' socialisation preferences and the attributes of their schools correlated with student engagement levels. Chapter 2 discusses the theoretical and empirical literature used to construct the conceptual framework for the research. Chapter 3 describes the methods used in carrying out the research, with results of the research presented in Chapter 4. Chapter 5 discusses practical implications of the findings presented and potential avenues for future research.

Chapter 2. Background to the Study

Chapter 2 discusses the theoretical and empirical research literature that underpinned the study. The chapter is organised into six main sections, which cover: (i) notions of 'best' schools and the influence of these perceptions on decisions about school choice; (ii) the notion of applying socialisation frameworks developed from the parenting styles literature to classify school cultures; (iii) students' preferences for different socialisation styles in their schooling contexts; (iv) the potential consequences of misalignment on student engagement; and (v) potential mediators of links between student-school alignment and engagement. The chapter concludes with an overview of the study conducted, along with a statement of the five specific research questions addressed.

2.1. The 'best school' myth

Against the shifting landscape of school choice policies in WA (as outlined in Chapter 1), parents are now increasingly seeking information upon which they can base their school choice decisions. This, in turn, has brought issues of school effectiveness to the foreground (for detailed reviews of these issues, see Bosker & Scheerens, 1989; Rutter & Maughan, 2002). Unfortunately, a 'one style fits all' model is frequently adopted in viewpoints on which schools are 'best', and this perspective has dominated debates about effective schooling to date. Until very recently, families in a position to do so often bypassed their local public schools to select from options in the non-government education sector, based on broad assumptions about which option was best amongst the public, independent and private school alternatives.

Embedded community beliefs about secondary school effectiveness suggest that private and independent schools provide better overall education experiences than do public schools (Alt & Peter, 2003). Historically, the independent and private school sectors have marketed their advantages (e.g., facilities, extra-curriculum activities, cultural pursuits, scholarship) over public schools well (English, 2009; Lee & Bowen, 2006). Traditionally, public schools have been ineffectual in responding to these marketing challenges, due in large part to the centralised bureaucracy within which these schools must operate, and to enduring mistrust held by the public toward government institutions in general (Bradley, 1996).

Despite the centrality of the notion of school effectiveness to most debates about school choice, it has been proposed that this construct has a weak theoretical basis (Scheerens, 1992; Reynolds & Cuttance, 1992; Creemers, Reynolds & Swint, 1994; Hopkins, 1994). At present, there remains little agreement on what the term should be taken to mean, though various researchers have attempted to provide an operational definition by identifying the *characteristics* of effective schools. These latter efforts have, however, similarly reflected a low level of consensus amongst researchers and practitioners. For example, in the seminal depiction proffered by Rutter et al. (1979), effective schools were defined on the basis of eight main characteristics:

(i) school ethos;
(ii) effective classroom management;
(iii) high teacher expectations;
(iv) teachers as positive role models;
(v) positive feedback and treatment of students;

(vi) good working conditions for staff and students;

(vii) student responsibility; and

(viii) shared staff-student activities.

In a more recent summary of school effectiveness research by Reynolds (1995), however, seven major factors were identified as critical in defining school effectiveness:

(i) the nature of the leadership by the headteacher (setting the mission, involving staff);

(ii) academic press (e.g., high expectations of what students can achieve; entering large numbers for public examinations);

(iii) parental involvement (parents as partners in and supporters of education);

(iv) student involvement (in learning and other aspects of the school);

(v) organisational control of students (reinforced by cohesion and consistency in the school);

(vi) organisational consistency across lessons in the same subjects, different subjects in the same years and across years; and

(vii) organisational constancy (i.e., limited staff turnover).

Definitions of school effectiveness have also varied considerably across contexts. Early work in Australia by McGaw, Piper, Banks and Evans (1992), for example, indicated that Australian school communities valued the following characteristics in schools, though these characteristics were generally more difficult to measure than those in other frameworks:

(i) students' 'positive relationship with learning;
(ii) students' development of a positive self-concept;
(iii) students' sense of self-discipline and self-worth;
(iv) students' living skills – becoming a productive and confident member of the adult world;
(v) students' development of appropriate value systems;
(vi) students' preparation for the next stage of learning.

It is clear from these perspectives that operational definitions of school effectiveness have varied considerably both over time and across national boundaries. Definitions of effectiveness have directly influenced the breadth of research conducted within the field. In general, school effectiveness research has historically had a limited and specific agenda, geared toward evaluating the generic attributes in lists such as those presented above (Ralph & Fennessey, 1983). Empirical studies conducted on the basis of these criteria, however, have highlighted the modest proportion of total variance in student outcomes for which such generic strategies account. Studies based on evaluating the contribution made by such generic school strategies have typically produced estimates of between 8 and 18% of the total variance in student outcomes (Creemers, Reynolds & Swint, 1994; Mortimore, Sammons, Stoll, Lewis & Ecob, 1988a, 1988b).

In Australia, the stimulus for school improvement has been driven primarily by education administrators in the interests of raising standards and the quality of education across all schools. In general, school improvement planners have based their strategies on idealised views of 'best' schools, which typically align with notions of *authoritative* socialisation types (see

Chapter 1). Thus, improvement strategies typically focus on promoting cultural change to raise *both* the demandingness *and* the responsiveness of schools. A chasm exists, however, between the ideals of improvement planners (who generally attempt to provide *more* of the same for *all*) and the realities of practice in secondary schools (in which teachers need to meet the individual needs and preferences of different students). School improvement planning is often based on the myth that a *best* or *most effective* school model exists, that, when implemented, will cater equally well for *all* students. This, in the view of the candidate, is a well-intentioned fantasy. Although authoritative schools may positively engage a wider range of student styles, if all schools aspire to adopt the same authoritative culture, diversity between schools and thus *real* school choice will be further eroded.

Based on these arguments, the rhetoric about which schools are 'better' or 'best' is based on opinions that require perspective. Consider for a moment how the effectiveness of schools might be defined, and *for whom* a particular school might be considered 'best'? A response to the first part of this question, that is, *how effectiveness should be defined*, is that market forces largely define community perceptions of school effectiveness. Each education provider proclaims its system to be best, with views of relative effectiveness based predominantly on overall achievement standards. The second part of the question, *better for whom*, has not yet been examined empirically.

In the present study, student engagement was used as the primary criterion measure for assessing student-school suitability, reflecting a clear 'best for whom' focus. This approach is based on the assumption that, to be meaningful, questions about school suitability must be evaluated on an individual student-by-school basis.

2.2. The socialisation styles of schools

The preceding discussion suggests that a fresh approach is required in quantifying school effectiveness – one that is *student*, rather than *organisation*, focused, and based on student engagement as a key indicator of school suitability. The foundational standpoint adopted here aligns well with the views expressed by previous researchers such as Bronfenbrenner (1986). To encourage research that is relevant to both families and teaching professionals, Bronfenbrenner recommended a perspective on school effectiveness based on an ecological view of the schooling experiences of students. He suggested a *meso-systemic* (i.e., evaluating more than one domain of influence) and *multi-dimensional* (i.e., evaluating more than one element within each domain) approach, which takes into account students', parents', teachers' and school leaders' perspectives. Meso-systemic approaches are well-placed to reflect the complex realities of schooling. These approaches shift the focus of school effectiveness evaluation away from generic measures such as disciplinary codes and standardised test performance toward the quality of students' engagement with school.

Little research has been directed thus far toward developing understandings of how the components of school meso-systems (e.g., parent expectations, student attributes and teaching approaches) relate to schooling suitability. Although home and other community factors are acknowledged as important by most educators, the social and affective outcomes of education are largely ignored, in comparison to academic outcomes (Mortimore, 1991a, 1993; Sammons, Mortimore, & Thomas, 1993a). To exemplify the extent of this oversight, Scheerens (1992) identified five priority areas that have emerged in school effectiveness research: (i) equality of opportunity, (ii) economic studies

of education function, (iii) evaluation of compensatory programs, (iv) school improvement planning, and (v) teacher quality. No mention was made of factors such as the fulfilment of students' social needs or the socialisation preferences of students. Hence, the focus to date has been squarely on characteristics of schools. It is posed here that, while understanding school cultures is clearly important, it is only important insofar as this contributes to school improvements that support the individual needs of students.

In addition to the home environment, school is a context within which significant socialisation occurs. Thus, logically, students' perceptions about the suitability of the schools they attend is an important prerequisite for optimal motivation, participation and achievement. Clearly, it would be difficult for some students to be successful at school when opportunities for success are not provided for *all* students.

It is proposed in this thesis that schools have unique cultures which will make them more or less suitable for different students. Schools are complex organisations, and students interact with their schools in a variety of ways (Marchant, Paulson & Rothlisberg., 2001; Pellerin, 2005). Variance in school cultures has been studied extensively in previous literature (e.g., Crosnoe, Johnson & Elder, 2004; Scheerens & Bosker, 1997). A noted in Chapter 1, several researchers (e.g., Gill et al., 2004; Pellerin, 2005) have now proposed the concept of a *school socialisation style* as a way to classify different school cultures. These efforts have largely drawn upon the four school socialisation types proposed originally by Maccoby and Martin (1983).

Maccoby and Martin 's (1983) school socialisation framework is based directly on Baumrind's (1967, 1971, 1987, 1991) parenting socialisation

typology, which classified parenting styles based on levels of parents' levels of demandingness and responsiveness (see Chapter 1). Four styles, discussed briefly in Chapter 1, were identified by Baumrind on this basis: authoritarian; authoritative; permissive; and indifferent.

Authoritarian parenting, according to Baumrind (1967), features high demandingness but low responsiveness. Such parents display low trust in their children, express little encouragement, and discourage open communication. Children of authoritarian parents often have high performance levels and few behavioural problems, but have lower levels of social competence and self-esteem than those of parents with other styles (Darling & Steinberg, 1993).

Permissive parenting features low demandingness but high responsiveness. Such parents are generally depicted as warm, accepting, child-centred and autonomy-granting. These parents tend not to require mature behaviours from their children, and often do not exert strict behavioural control, which may not foster their children's self-regulation. Hence, while children of permissive parents tend to have high levels of social competence and self-esteem, they show relatively low levels of achievement and school engagement (Darling & Steinberg, 1993).

Indifferent parenting is characterised by low demandingness *and* low responsiveness. Indifferent parents are depicted as those who do not support or encourage their child's self-regulation, and who fail to monitor or supervise their child's behaviour. Such lack of attention typically results in these children faring poorly on most schooling outcomes (Darling & Steinberg, 1993).

Authoritative parenting was characterised by Baumrind (1967) in terms of high levels of demandingness *and* responsiveness. Authoritative parents show high levels of interest and involvement in their children's lives, exerting behavioural control and monitoring whilst also providing emotional support, open communication, trust toward the child, parental acceptance, and encouragement of psychological autonomy. Authoritative parents help children and adolescents develop an instrumental competence and balance individual needs with social responsibilities.

Common wisdom suggests that authoritative parenting styles are likely to be the most effective. Research into parenting styles has offered some support for these views. Children with authoritative parents have been found to demonstrate higher educational aspirations, more adaptive achievement strategies, higher levels of performance, and better adjustment to school than children of authoritarian, permissive, or indifferent parents (Aunola et al., 2000; Steinberg, 2000; Lamborn, Mounts, Steinberg & Dornbush, 1991; Slicker, 1998; Steinberg, Lamborn, Darling, Mounts & Dornbush, 1994; Stattin, & Nurmi, 2000; Darling & Steinberg, 1993).

In their generalisation of Baumrind's (1967) typology to schooling contexts, Maccoby and Martin (1983) used a two-dimensional framework to describe school socialisation styles. Using the same terms as those in the original Baumrind typology, the term *school demandingness* was used to refer to factors such as a focus on academic press, high outcome expectations and an orderly disciplinary climate, while the term *school responsiveness* was used to refer to factors such as supportive teacher-student relationships, a supportive school-

climate, and shared values. Figure 2.1 depicts the socialisation framework originally proposed by Maccoby and Martin (1983).

Authoritarian Socialisation Styles High Demandingness and Low Responsiveness	Authoritative Socialisation Styles High Demandingness and High Responsiveness
Indifferent Socialisation Styles Low Demandingness and Low Responsiveness	Permissive Socialisation Styles Low Demandingness and High Responsiveness

Figure 2.1. School socialisation styles posed by Maccoby and Martin (1983)

Prior research that has applied Maccoby and Martin's (1983) school socialisation framework has shown that the social engagement cultures of schools can be classified on a continuum from authoritarian, authoritative, permissive, and indifferent. In one study, Pellerin (2005) used a three-step procedure to classify secondary schools using this framework. First, a set of socialisation style indicators was identified for both students and school administrators. These measured the two dimensions of demandingness and responsiveness described by Maccoby and Martin (1983). Responses to these survey items were then summed to provide overall measures of school demandingness and responsiveness. These totals were then used to group schools into the four socialisation types described in Figure 2.1 as follows:

(i) Schools that scored above the mean on both demandingness and responsiveness were labelled *authoritative*.

(ii) Schools that scored above the mean on demandingness and below the mean on responsiveness were labelled *authoritarian*.

(iii) Schools that scored below the mean on demandingness and above the mean on responsiveness were labelled *permissive*.

(v) Schools that scored below the mean on both demandingness and responsiveness were labelled *indifferent*.

Pellerin's (2005) findings indicated that different schools did indeed socialise children in different ways, reflecting patterns similar to those reported in the parenting styles research. For example, authoritative schools tended to have the best achievement results, while indifferent schools fared the worst in terms of student engagement. Authoritarian schools, in contrast, were shown to have the worst results in terms of student drop-out.

2.3. Students' socialisation preferences

Upon enrolment, each student will bring with him or her a unique set of background attributes which will influence his or her preferences for certain socialisation styles. The effects of school socialisation styles, therefore, are likely to vary depending on students' individual characteristics. For example, evidence is emerging to suggest that authoritative schools may benefit lower socio-economic white children, but not those from other cultural groups. For example, in a study by Darling and Steinberg (1993), it was found that African-American and Asian children reported no benefits from authoritative schooling contexts. This contrasts with findings reported in other studies, in which students from low socio-economic status white families reported higher achievement level when instructed by authoritative teachers (e.g., Gregory & Weinstein, 2004).

Based on the arguments posed above, it is possible that students' preferences for different socialisation styles will determine the impact of given schools on student engagement levels. Whilst this possibility has not been explored in

published studies, in her Ph.D. dissertation project, Lee (2008) examined the relationship between students' attributes and different school environments. Lee utilised data from the Program for International Student Assessment (PISA)[2] database to investigate the effect of socialisation style on student engagement and on the reading performance of 2,849 fifteen year old students from 141 U.S. schools. Of relevance to the present study, Lee examined the effects of student demographics and socio-economic status factors on students' preferences for different school socialisation styles. The results of Lee's research indicated that students from different ethnic backgrounds preferred different styles of school.

In the current study, a similar focus to the one adopted by Lee (2008) was adopted. The primary proposition upon which the study was based was that students will bring with them certain preferences for different types of schools, and that these, in turn, may interact with the attributes of the student's school to affect student engagement levels. Students' socialisation preferences will be grounded in myriad factors, including the parenting styles adopted by the student's parents; the student's own learning and other goals; and other background factors such as ethnic background. Studying the origins of students' preferences was beyond the scope of this study, and was thus not investigated here. The focus of this research, as mooted previously, was to explore how the level of alignment between the socialisation styles of schools and the socialisation preferences of students correlated with school engagement levels.

[2] Retrieved on 15/5/14 from: http://www.oecd.org/pisa/

2.4. Disengagement as a potential consequence of misalignment

The literature on school-student relationships suggests that the attributes that students bring to the schooling context are likely to influence their socialisation preferences. It is argued here that the consequences of misalignments between students' preferences and school socialisation cultures are likely to show first in declining student engagement levels. Based on a review of research from various sources going back decades, papers released by the Center on Education Policy (CEP)[3] at George Washington University suggested that while existing efforts to increase student achievement are an important part of education reform, they have not focused enough on what it takes to motivate students in school. Too often, strategies designed to bolter student achievement (e.g., raising academic standards) have not addressed the actual reasons *why* students are disaffected and performing poorly.

Based on the arguments presented in previous sections, it is proposed in this thesis that misalignments between students' socialisation preferences and the attributes of their schools can precipitate a decline in student engagement levels. This proposition, as noted previously, was at the core of the present study. Given the vast array of definitions of student engagement that have appeared previously (see Chapter 1), a primary task involved in carrying out the study was to determine how student engagement should be assessed. The remainder of this section focuses on describing the measures that were chosen to act as indicators of student engagement in the current study.

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[3] Retrieved on 20/10/13 from: http://www.cep-dc.org/displayDocument.cfm?DocumentID=405

Considering the ongoing debate about defining the engagement meta-construct (see Chapter 1), for the purpose of the present study, it was thought prudent to adopt an inclusive approach to conceptualising student engagement. In this research, we identified a number of engagement indicators used in previous research to assess student engagement. While many factors have been reported in the literature that purport to represent facets of the engagement meta-construct, four sub-domains of academic, behavioural, affective and psychological contributors have emerged consistently. Indicators within each of these subdomains generally fall within the broad framework of motivation theory (Furrer, Skinner, Marchand and Kinderman, 2006).

The indicators of engagement chosen in this study were based on published summaries of measures used in previous research (see Gibbs & Poskitt, 2010). These focused on students' (i) levels of psychological need fulfilment; (ii) global academic motivation; (iii) intrinsic motivation; (iv) achievement goal orientations; (v) outcome expectancies (i.e., anticipated academic performance); and (vi) life and school satisfaction.

2.4.1. Psychological needs fulfilment

Based on self-determination theory (Deci & Ryan, 2000), all individuals have three basic psychological needs that must be satisfied for that individual to engage with a given context, and to develop in optimal ways from that engagement. The three needs stipulated in this theory are the *need for autonomy*, the *need for competency*, and the *need for relatedness*. Based on this theory, students' needs for *autonomy* are met when they perceive that they have a choice about what they are doing and when they identify with the

value of the chosen activity. Their need for *competence* is satisfied when they perceive that they can achieve their desired ends. Their need for *relatedness* is realised when they perceive that they are accepted and respected by their teachers and peers (Furrer & Skinner, 2003). Following from this argument, the degree to which students perceive their school settings as meeting or failing to meet their needs will be a key indicator of the strength of their engagement with that school.

In this study, we operationalised needs fulfilment using the *Activity-Feelings State Scale* (AFSS) developed by Reeve and Sickenius (1994). This instrument measures the extent to which students perceive that their interaction with school-related activities fulfils their immediate (i.e., state-like) needs for autonomy, competence and relatedness. The AFSS comprises separate three and four item scales to assess each of the three basic needs identified:

(i) The four-item AFSS *autonomy* sub-scale evaluates students' intra-psychic focus on self-determination.

(ii) The three-item AFSS *competency* sub-scale evaluates students' instrumental focus on ability.

(iii) The three-item AFSS *relatedness* sub-scale evaluates students' interpersonal focus on connectedness.

These three AFSS subscales were used in the present study as indicators of the extent to which students perceived that their schools fulfilled their basic psychological needs.

2.4.2. Academic motivation

Various definitions of academic motivation have appeared in the education research literature, reflecting the specific theoretical position taken by the author. Martin and Dowson (2009) overviewed an array of six key theories that address different aspects of motivation (Attribution theory, Expectancy-value theory, Achievement-goal theory, Self-determination theory, Social-cognitive theory, and Self-worth motivation theory). Broadly, however, motivation is understood to denote the *strength of a person's desire to attain a goal* (Schmidt, Palminteri, Lafargue, & Pessiglione, 2010). Academic motivation can be seen is a subtype of the general construct of *effectance motivation*, which is defined as the need to be successful or effective in dealing with one's environment (Gresham, 1988).

Motivation plays a key role in students' learning processes and achievement (Givvin, Stipek, Salmon & MacGyvers, 2001). The importance assigned to motivation in academic settings generally reflects the consistent relationships that have been demonstrated between motivation and achievement outcomes in a variety of settings (e.g., Broussard & Garrison, 2004; Gottfried, 1990; Lange & Adler, 1997). Despite the large body of findings that attests to the importance of motivation in schooling, there remains little consensus on the practical implications of these relationships for schools. Debates still abound on how such research findings might be applied to shape educational policy and enhance students' educational achievements (Martin, Marsh, Debus & Malmberg 2008; Pintrich, Conley & Kempler 2003).

To measure academic motivation in the present study, we adapted items from the *Academic Motivation Scale* (AMS) developed by Vallerand, Pelletier,

Blais, Briere, Senecal, and Vallieres (1992, 1993). This instrument was selected because it has good construct validity and reliability. The AMS has 28 items grouped into seven subscales (i.e. four items each). For the purpose of evaluating students' overall motivation levels, we assumed that students with high overall motivation levels would rate, on average, more highly than disaffected students across *all* of the subscales in the AMS. Therefore, to estimate a total motivation score, we selected for inclusion in our measure one item from each of the seven AMS sub-scales. This created a seven-item global academic motivation subscale (herein, simply called 'academic motivation subcale' for parsimony of expression) which measured the full spectrum of students' motivation types. Thus, high mean scores on this scale indicate higher levels of *global* academic motivation (i.e., not differentiating levels of motivation by type).

2.4.3. Intrinsic motivation

While the items drawn from the AMS were designed to provide a global measure of students' motivation levels, another measure was incorporated specifically to focus on students' *intrinsic* motivation levels. The concept of motivational orientation acknowledges that individuals can vary not only in their overall *level* of motivation to complete a given activity (that is, in how much they wish to engage in the activity), but also in terms of their *reasons for wanting to do this*. For example, two students may be equally motivated to complete a groupwork project, but the reasons why the two individuals are thus motivated may differ considerably. One may be motivated to complete the project because he/she is inherently interested in its content, and keen to learn more about it; the other may wish to complete the project simply because this will be necessary to gain a good grade for the term.

Over a period of several decades, research has indicated that these two types of motivation can have very different consequences for subsequent performance and overall well-being. The examples depicted above underscore the primary distinction made in self-determination theory (Deci & Ryan, 1985) between intrinsic and extrinsic motivation. Based on this theory, *intrinsic motivation* refers to engaging in activities because these are inherently interesting or enjoyable. *Extrinsic motivation* refers to engaging in activities because this will produce a desirable external outcome. Elaborating further the distinction between these two types of motivation, Ryan and Deci (2000, p.56) depicted intrinsic motivation in the following way:

> Intrinsic motivation is defined as the doing of an activity for its inherent satisfactions rather than for some separable consequence. When intrinsically motivated a person is moved to act for the fun or challenge entailed rather than because of external prods, pressures, or rewards. The phenomenon of intrinsic motivation was first acknowledged within experimental studies of animal behavior, where it was discovered that many organisms engage in exploratory, playful, and curiosity-driven behaviors even in the absence of reinforcement or reward (White, 1959). These spontaneous behaviors, although clearly bestowing adaptive benefits on the organism, appear not to be done for any such instrumental reason, but rather for the positive experiences associated with exercising and extending ones capacities.

Ryan and Deci (2000) depicted extrinsic motivation as engagement in activities for the purpose of attaining some kind of instrumental external outcome. As noted by Ryan and Deci, in the classic literature, extrinsic motivation has typically been characterised as a 'pale and impoverished' form of motivation, in contrast to intrinsic motivation. As a caveat, Ryan and Deci (2000) noted that extrinsic motivation as it is conceptualised in self-

determination theory may be of different types. These range from highly 'impoverished forms' of motivation (e.g., where students engage in actions with resentment, resistance, and disinterest) to those which reflect willing participation, based on an acceptance of the utility of a task. Ryan and Deci noted that, as many of the tasks that students are asked to complete in school are not inherently interesting, teachers should recognise the distinctions amongst these forms of extrinsic motivation, so that at the very least, efforts can be made to avoid facilitating the more impoverished types in students.

Given that the definition of intrinsic motivation in self-determination theory overlaps significantly with Skinner and Belmont's (1994) definition of engagement, it is reasonable to propose that levels of intrinsic motivation (as opposed to extrinsic motivation) can serve as an indicator of student engagement levels. Indeed, in behavioural or operational terms, students with high levels of intrinsic motivation are likely to be difficult to distinguish from those with high levels of task engagement. Exploring the relationship between intrinsic and extrinsic motivations and student engagement, Saeed and Zyngier (2012) reported that the two forms of motivation are linked to different types of task engagement. Specifically, while intrinsic motivation facilitated authentic student engagement in learning (e.g., that based on interest in the task), extrinsic motivation served to develop 'ritualistic' engagement in students (i.e., engagement geared toward task completion).

Ryan and Deci (2000) noted further that intrinsic motivation can be systematically 'catalysed or undermined' by contextual variables such as parent and teacher practices (Ryan & Stiller, 1991). Various studies have indicated that teachers can moderate levels of intrinsic motivation in

classrooms by altering the ways in which they interact with students (Hardre & Pianta, 2001; Murray & Greenberg, 2000; Pianta, 1999; Ryan & Stiller, 1991; Stipek, 2002; Wentzel, 1998; Wigfield et al., 2006). Factors that have been identified as critical for promoting intrinsic motivation include classroom structure (e.g., Ames & Ames, 1985; Rosenholtz & Wilson, 1980), and levels of support provided by student-teacher relationships (Wentzel, 1997, 1998).

In the context of the current research study, it was proposed that high levels of alignment between students' socialisation preferences and the socialisation cultures of schools are likely to precipitate high levels of intrinsic motivation. For instance, students who prefer tasks that involve high levels of social interaction, and afford them a high level of autonomy and flexibility, are more likely to be intrinsically motivated in school contexts that are relatively high in responsiveness than students who prefer more pre-defined, prescriptive tasks.

Given that the focus here was on intrinsic motivation, rather than different types of extrinsic motivation, only the former type of motivation was investigated in this study. The measure of intrinsic motivation was comprised of items drawn from Ryan and Connell's (1989) *Academic Self-Regulation Questionnaire* (ASRQ). The ASRQ is very widely used in educational settings, and has been demonstrated to have highly favourable reliability and validity characteristics across a range of year levels (Grolnick & Ryan, 1987, 1989; Grolnick, Ryan, & Deci 1991; Miserandino, 1996; Patrick, Skinner, & Connell, 1989; Ryan & Connell, 1989; Vallerand, 1997).

Grounded in self-determination theory, the ASRQ focuses on distinguishing between different types of behavioural regulation in terms of the degree to

which they represent autonomous or self-determined (versus controlled) functioning. Intrinsic motivation is interpreted in the ASRQ as being at the highest level of autonomous, self-determined activity. The items from the ASRQ that were used in this study to assess intrinsic motivation were as follows: "The reason I do schoolwork is because I really enjoy the experience"; "The reason I do schoolwork is because I find it so interesting", "The reason I do schoolwork is because there are lots of appealing things to do", "The reason I do schoolwork is because I see the importance of learning", "The reason I do schoolwork is because I really appreciate and understand the importance of school", and "The reason I do schoolwork is because to me, education is just so important - so valuable".

Together, the items drawn from the AMS and those drawn from the ASRQ provided measures of both the overall *quantity* of students' academic motivation (global academic motivation, based on the AMS), as well as the *quality* of students' motivation (intrinsic motivation, based on the ASRQ).

2.4.4. Achievement goal orientations

Students' achievement goal orientations refer to their dispositions toward developing or demonstrating ability in achievement situations (see VandeWalle, 1997). Achievement goal theories traditionally distinguish between two broad types of goal orientations. Students who adopt a *mastery* goal orientation are those whose primary intentions when engaging in learning activities are to master new skills or acquire new knowledge. In contrast, students who adopt a *performance* goal orientation engage in learning activities with the aim of demonstrating high ability levels and outperforming their peers. These two broad types of goals can be further

distinguished into *approach* and *avoidance* subtypes. For example, students with a performance *approach* goal will generally be those whose primary intent is to be perceived *well* by others. In contrast, students with a performance *avoidance* goal will generally be focused on strategies to *avoid* failure and looking incompetent in front of peers.

Given that the focus here was on assessing levels of student engagement, rather than disaffection, only mastery approach and performance approach goals were assessed in the present study. The achievement goals instrument used in the study comprised items drawn from the *Achievement Goal Questionnaire* (AGQ) developed by Elliot and McGregor (2001). The AGQ is a 12-item measure of the four different types of goal orientations listed above (i.e., mastery approach, mastery avoidance, performance approach, and performance avoidance). Three items measure each of the four achievement goal orientations. In the present study, only six items were used from the AGQ to assess mastery and performance approach goals. The AGQ has demonstrated sound psychometric properties in previous evaluations, and has been widely used to assess students' goals in a variety of settings.

2.4.5. Outcome expectancies

Students' outcome expectancies reflect their perceptions of the likelihood that their efforts will produce a given desired outcome. Outcome expectancies were included in this study because these have been shown to be a powerful measure of student engagement levels. Students who believe that they cannot control schooling outcomes though their actions are unlikely to show much inclination to engage optimally with that environment. Within the general field of expectancies, two primary constructs have formed the focus of

previous research: self-efficacy, and outcome expectancies. Self-efficacy reflects beliefs about one's ability to successfully perform a task (Pajares, 1996), and is generally deemed to be independent of outcome expectancies. As indicated previously, outcome expectancies reflect beliefs about the likelihood of a behaviour leading to a specific outcome.

In a classic experiment by Maddux and Rogers (1983), self-efficacy and outcome expectancies were compared directly in terms of their contributions to students' intentions to engage with a task. In this study, outcome expectancies were found to predict engagement intentions, while self-efficacy did not. In a further study with college students, Maddux, Norton and Stoltenberg (1986) extended upon their original design, and examined the relative contributions that self-efficacy, outcome expectancies and outcome value made to predicting behavioural intentions. Again, outcome expectancies were found to have a significant main effect on behavioural intentions in this study, whilst self-efficacy did not. These results suggest that, of the two constructs, outcome expectancies may be the more powerful predictor of student engagement.

In the present study, outcome expectancies were assessed in terms of students' expectations of their future academic and career success. A three-item *Anticipated Academic Performance* subscale developed by Vallerand et al. (1997), which has been reported by the developers to have high levels of internal consistency (α = .79) and construct validity was used for this purpose. The three items *within* the subscale assess students' outcome expectancies in terms of both academic performance ("In terms of academic performance, I expect to do well", 'In terms of academic performance, I

expect to do better than most of my classmates") and in terms of future career prospects ("My expectancies for career success are very, very high").

2.4.6. School and life satisfaction

Students' levels of school and life satisfaction were also incorporated as indicators of engagement levels. Satisfaction with one's specific context and with life more broadly is considered an important aspect of subjective wellbeing (Huebner, Suldo, Smith & McKnight, 2004; Huebner, Valois, Paxton, & Drane, 2005). A sense of wellbeing both at school and outside of school is thus seen as a critical precursor to positive school engagement levels (Ash & Huebner, 1998). School and life satisfaction are generally defined as an individual's subjective, global evaluation of the positivity of her/his school experiences and of life as a whole, respectively (Diener, Suh, Lucas & Smith, 1999). For the purpose of this study, school and life satisfaction levels were evaluated using items from the *Brief Multidimensional Life Satisfaction Scale* developed by Seligsen, Huebner and Valois (2003).

Life satisfaction scales encompass judgments ranging from very negative through neutral to very positive. Thus, life satisfaction scales reflect conceptualisations of positive wellbeing that extend beyond the absence of dissatisfaction. In support of distinguishing between positive and negative wellbeing indicators, Greenspoon and Saklofske (2000) demonstrated the utility of a dual-factor model of child mental health, in which life satisfaction is the key indicator of positive psychological wellbeing. Many benefits accrue to those who typically experience high levels of life satisfaction (Proctor, Alex, & Maltby, 2009). For example, in a study by Huebner and Gilman (2002, 2006), adolescents who reported that they were very satisfied overall

demonstrated generally positive functioning across a range of intrapersonal, interpersonal, and school-related domains. Low levels of life satisfaction, conversely, have been found to be predictive of a variety of negative outcomes, including mental and physical health problems (see Frisch, 2000, for a review).

Based on these results, life satisfaction appears to operate as an intrapersonal strength that helps buffer against the development of psychopathology in the face of increasing stressful life events. In contrast, children who report being dissatisfied with their lives have been found to demonstrate pervasive difficulties later in life, including aggressive behaviour, internalising behaviours, suicidal thinking, sexual risk-taking, alcohol and drug use, eating, physical health problems, and physical inactivity (Suldo & Huebner 2004, 2006). Furthermore, preliminary studies have suggested that high adolescent life satisfaction can be protective, mediating the relationship between stressful life events and internalising behaviours, and moderating the relationship between stressful life events and externalising behaviours (Suldo & Huebner 2004, 2006). Based on Ash and Huebner's (1998) notion that both school and life satisfaction can be seen as critical precursors to school engagement, these were incorporated as indicators in the present study.

2.5. Potential mediators of alignment-engagement links

The arguments posed previously suggest a possible link between student engagement and the degree of alignment between students' socialisation preferences and their school socialisation styles. At this point, however, potential mechanisms that might mediate these relationships have not yet

been discussed. It is proposed here that students who are well aligned in their socialisation preferences to their schools are likely to have quite different schooling experiences than those who are not so well aligned. In particular, students attending schools that match their preferences for demandingness and responsiveness are more likely than others to judge that their schools provide adequate support for their learning and social development.

It should be noted here first that the differences in judgement between 'aligned' and 'non-aligned' students proposed here may reflect either *real* or simply *perceived* differences in schooling experiences. First, students whose socialisation preferences are well met by their schools are likely, in reality, to have quite different schooling experiences to those whose preferences are not met. Students' preferences for different levels of demandingness and responsiveness will, at some level, reflect their *actual* needs in terms of contextual supports, and thus, schools who provide these contexts will genuinely be providing these students with a more supportive experience than students whose preferences are not aligned with their school styles.

Second, based on expectations violation theory (Burgoon, 1993), which explores how individuals interpret violations of the expectations they bring to social situations, misalignments between students' socialisation preferences and school socialisation styles can lead students to *perceive* a lack of support for their learning, even when this is not the case in reality. Expectations violation theory has been applied in numerous previous studies to explore relationships between students' expectations and subsequent perceptions of contextual variables (e.g., Houser, 2006; Meltzer & McNulty, 2011).

In the present study, three measures were used to assess the extent to which students perceived that their schools provided adequate support for their learning. First, perceptions of the support provided by schools to enhance student autonomy were evaluated using a subscale from the *Learning Climate Questionnaire* (LCQ: Williams & Deci, 1996). The LCQ asks students to think about their school experiences and respond to questions such as: "My teachers provide me with choices and options". Second, perceptions of schools' support for learning and social development were assessed using two subscales from the *Social Support and Learning Questionnaire* (SSLQ) developed by Lee and Smith (1999). The SSLQ measures support for learning through questions like, "At my school teachers notice if students are having trouble learning something". School social supports are assessed through questions like, "At my school, staff know who students are".

Responses to these instruments were not included as primary dependent measures in the present study, but were incorporated to determine whether any links observed between student-school alignment and engagement levels were mediated by differences in the perceptions of school support reported by 'aligned' and 'non-aligned' students. As acknowledged above, disparities in perceptions of support may reflect either real differences in students' school experiences, or biases in viewpoint based on the gap between students' preferences and the socialisation styles of the school. Separating these two was beyond the scope of this thesis. Therefore, the study focused on students' perceptions of support, irrespective of whether these 'mapped' to any 'real' differences in students' school experiences.

2.6. Study overview and aims

The overarching aim of the present study was to investigate the relationship between students' engagement levels and the degree of alignment between their socialisation preferences and the socialisation cultures of their schools. Five schools in WA participated in the study. In each, the parents of all Year 8 students were asked to complete a measure of school climate, which was then used to classify the schools using Maccoby and Martin's (1983) school socialisation framework. The students of these parents were then asked to complete a set of survey instruments indicating: (i) their socialisation preferences; (ii) their levels of engagement with school, using the indicators described earlier; and (iii) their perceptions of the autonomy, learning, and social supports their schools provided. Five specific research questions were posed.

2.6.1. Research Question 1: Can WA secondary schools be classified into distinct socialisation types?

As noted previously, following Maccoby and Martin's (1983) generalisation of socialisation types to schools, Pellerin (2005) classified secondary schools into four main types (authoritarian, authoritative, permissive, and indifferent) using a three-step process. This included (i) identifying a set of relevant socialisation style indicators; (ii) surveying stakeholders based on these measures; and (iii) grouping the schools into the four styles stipulated. A similar process was used here to determine whether schools in the sample reflected different socialisation types based on Maccoby and Martin's (1983) framework, though the focus in the present study was on the relative levels of demandingness and permissiveness *within* each school.

2.6.2. Research Question 2: Can students be clustered into distinct groups based on their preferences for contextual demandingness and responsiveness?

A key proposition put in this thesis is that students, like schools, can be classified into groups based on their socialisation preferences. To address this question, students completed a survey on their preferences for demandingness and responsiveness within school contexts. A cluster analysis was then performed on the responses obtained, to determine whether students grouped into distinct 'style' categories aligned with Maccoby and Martin's (1983) socialisation types. The classifications obtained were then used to determine the extent to which each students' socialisation preferences was aligned with the style of his or her school. The resulting 'alignment index' formed the focus of all remaining questions addressed in the study.

2.6.3. Research Questions 3 and 4: Is there a relationship between boys'/girls' engagement levels and their alignment with their school's socialisation type?

The focus of these questions was on assessing whether students who were well aligned with their schools based on their socialisation preferences reported higher engagement levels than those who were not so aligned. Addressing these questions was the primary goal of the study. As mooted previously, these questions introduce the notion that school suitability (and thus, school choice) decisions could be based on assessing the level of 'fit' between students and prospective schools. Gender was incorporated as a potential moderator variable to assess whether any relationships identified between engagement and student-school alignment differed across males and females. This step was taken in light of the vast body of literature that has

now accumulated on gendered responses to schooling context variables (e.g., Sukhnandan, 1999).

2.6.4. Research Question 5: Do perceptions of school supports mediate the links between student-school alignment and engagement?

As noted earlier, in addition to the primary goal of determining whether there was a link between student-school alignment and engagement levels, a secondary goal was to determine whether any relationships observed could be attributed to students' perceptions of the quality and quantity of the support offered by schools. Hence, this question was addressed in the study as a first effort toward *explaining* any differences that were observed between 'aligned' and 'non-aligned' students.

This represents an advance on prior research which, by and large, has focused more on the 'whether' than on the 'why' questions. It is posed here that, while answering the 'whether' and 'what' questions is clearly necessary, this is not sufficient for providing stakeholders with the information they need to alter negative outcome trajectories. In this case, if perceptions of support emerge as a significant mediating variable, this would provide school personnel with a basis for intervention to reduce the impact of misalignment on students, in situations where these cannot be avoided. As the research reported here was conducted as part of professional doctorate, this was deemed by the candidate to be an essential contribution to addressing the problem which provided the impetus for the research.

Chapter 3. Method

This chapter describes the instruments and procedures used to address the research questions posed in Chapter 2. As indicated, five schools in WA participated in the study. In each, the parents of all Year 8 students were asked to complete a school socialisation style measure to determine whether schools could be classified into the four styles described by Maccoby and Martin (1983). The students of these parents then completed measures of their socialisation preferences, school engagement levels, and perceptions of school support. The primary goal was to assess whether the degree of alignment between students' socialisation preferences and their school socialisation styles related significantly to their engagement levels. A secondary goal was to determine whether any student-school alignment links could be explained by differences in students' perceptions of school support.

3.1. Participant schools

Participants for the study were drawn from five WA secondary schools, selected to represent a diverse range of education settings in the state. This sample included two co-educational state government (public) senior high schools; two single-gender private grammar schools (one of each gender); and one independent co-educational college. All participant schools serviced relatively high socio-economic suburbs in WA.

The school sample size was smaller than originally intended, owing to the fact that 76% of the school principals who were invited to participate declined to do so. Increasing the sample of schools would most likely require top-down support from the Ministry, which the candidate was not in a position

to secure. Therefore, until replicated with a larger school sample, this study should be viewed as a preliminary investigation. It is hoped that the promising results from this study will provide the evidence needed to secure Ministry-level support for a broader survey of schools in the future.

3.2. Participant families (parents and students)

All Year 8 students and their parents in each school were invited to participate in the study. In total, 306 students and their parents responded to the surveys. Of these, however, only 275 cases could be retained in all stages of the data analysis, owing to missing data from 31 of student surveys. Of the 275 students included in the final sample, 156 were male, and 119 were female. In order to ensure complete anonymity, no further background information was sought from the families. For all students from two-parent families, parents were asked to complete the surveys collectively, so the ratings reflected their shared view of their child's school.

3.3. Instruments: Parents

Two major sets of data were collected from the study participants. Parents were first asked to complete a school climate questionnaire, which was designed to measure its socialisation style. Measures of school climate used in past studies of school socialisation styles have been based primarily on the work of Epstein and McPartland (1976); Rutter, Maughan, Mortimore, Ouston and Smith (1979); and Paulson, Marchant and Rothlisberg (1994).

In the present study, two subscales from an established instrument, the *School Climate Questionnaire*, or SCQ (Gill et al., 2004), were used to classify participant schools into socialisation types. Gill et al. (2004) developed the

SCQ, drawing from an instrument used originally by Paulson et al. (1994) to assess the socialisation styles of secondary schools. Six items from the SCQ were used in the present study to measure parents' perceptions of *school demandingness*. This subscale included questions about the school's discipline procedures, expectations for homework, tolerance for deviation from school rules, and teachers' expectations for student performance. Seven items from the SCQ were used to assess perceptions of *school responsiveness*. This subscale focused on attributes such as the extent to which staff were interested in students, whether staff listened to what students had to say, and whether there was good student-staff rapport. Parents respond to each item in the SCQ on a scale from 1 (never) to 5 (always). The full list of items from the SCQ that were used in the present study is presented in Table 3.1. Items within the demandingness subscale are coded as 'D', while those in the responsiveness subscale are coded as 'R'.

Preliminary validations of the SCQ (see Gill et al., 2004) have indicated high levels of internal consistency for both subscales, based on Cronbach's α coefficients (α = .85 for the demandingness subscale, and α = .78 for the responsiveness subscale). Given that the items in the SCQ were adapted somewhat for use in the current study, the ratings collected from the 306 parents were used first to confirm the internal structure of the two subscales.

Table 3.1. SCQ items used in the present study

Code	Full Item Statement
D1	At my child's school, the day is structured for students.
D2	At my child's school, classrooms are structured.
D3	At my child's school, discipline is emphasised.
D4	At my child's school, deviation from school rules is tolerated.*
D5	At my child's school, students are expected to do their homework.
D6	At my child's school, teachers encourage students who do their best.
R1	At my child's school, staff are interested in students.
R2	At my child's school, there is a good standard of teaching.
R3	At my child's school, staff listen to what students say.
R4	At my child's school, the students get along well with staff.
R5	At my child's school, discipline is fair.
R6	At my child's school, there is a strong school spirit.
R7	At my child's school, students feel put-down by staff.*

* Item is reverse-scored.

Two analyses were performed to evaluate the internal structure of the SCQ. First, a principal components analysis (PCA) was performed to determine whether the items clustered as stipulated in the original study (see Table 3.1). Second, Cronbach's α coefficients were computed to evaluate the internal consistency of each individual subscale. Bivariate correlations for SCQ items are shown in Table 3.2.

Table 3.2. Bivariate correlations for items from the SCQ

	D1	D2	D3	D4	D5	D6	R1	R2	R3	R4	R5	R6	R7
D1	--	.512**	.445**	.223**	.278**	.298**	.305**	.309**	.249**	.264**	.324**	.334**	.148**
D2		--	.580**	.230**	.286**	.348**	.393**	.480**	.411**	.356**	.429**	.479**	.219**
D3			--	.316**	.247**	.330**	.327**	.425**	.344**	.344**	.391**	.430**	.212**
D4				--	.136*	.141*	.112*	.139*	.078	.146*	.150**	.130*	.199**
D5					--	.375**	.241**	.269**	.238**	.204**	.252**	.287**	.162**
D6						--	.459**	.513**	.420**	.340**	.366**	.362**	.297**
R1							--	.699**	.591**	.553**	.560**	.517**	.396**
R2								--	.621**	.590**	.633**	.560**	.465**
R3									--	.646**	.595**	.455**	.429**
R4										--	.623**	.548**	.511**
R5											--	.518**	.438**
R6												--	.326**
R7													--

** Significant at α = .001 (two-tailed); * Significant at α = .05 level (two-tailed)

Outcomes of the PCA performed in this study on the SCQ are shown in Table 3.3. As indicated, the PCA indicated a two-component structure, which accounted for 54.185 % of the total variance in SCQ scores. All items loaded strongly on the subscale proposed in the original instrument structure, with the exception of item D6 (i.e., "At my child's school, teachers encourage students who do their best"). The latter item, originally included as a demandingness item, demonstrated a slightly higher loading on the responsiveness component than on the demandingness component. Given that this difference was small, and that the item did load significantly on the responsiveness component, the item was retained in its original subscale. Cronbach's αs were .89 for the responsiveness component and .72 for the demandingness component. These indicate high levels of internal consistency for both subscales. Given these findings, the instrument was deemed to have adequate psychometric properties for use in the current study.

3.4. Instruments: Students

Three sets of instruments were completed by students in the study. First, a Socialisation Preference Survey (SPS) was assembled to assess students' preferences for demandingness and responsiveness in their schooling contexts. Second, a battery of instruments was collated to assess students' engagement levels across the dimensions outlined in Chapter 2 (e.g., students' psychological need fulfilment; motivation and achievement goal orientations; school and life satisfaction; academic outcomes expectancy). Third, a measure of Perceived School Support (PSS) was compiled to assess the extent to which students felt that their schools provided adequate support for their autonomy, learning, and social engagement.

Table 3.3. Rotated component loadings for the SCQ

SCQ item statement	Responsiveness	Demandingness
	α = .89	α =.72
R4 - At my child's school, students get along well with staff.	*.807*	.145
R2 - At my child's school, there is a good standard of teaching.	*.800*	.288
R3 - At my child's school, the staff listen to what students say.	*.799*	.156
R1 - At my child's school, the staff are interested in students.	*.770*	.213
R5 - At my child's school, discipline is fair.	*.753*	.260
R7 - At my child's school, students feel put-down by staff.	*.656*	.037
R6 - At my child's school, there is a strong school spirit.	*.612*	.389
D6 - At my child's school, teachers encourage students who do their best.	*.491*	.381
D3 - At my child's school, discipline is emphasised.	.266	*.736*
D1 - At my child's school, the day is structured for students.	.153	*.734*
D2 - At my child's school, the classrooms are organised.	.337	*.719*
D4 - At my child's school, breaking rules is tolerated.	-.015	*.545*
D5 - At my child's school, students are expected to do their homework.	.207	*.476*

3.4.1. Socialisation preferences

To construct the 12-item Socialisation Preferences Scale (SPS), several instruments were reviewed which measured overall school demandingness and responsiveness levels. The measure developed by Gill et al. (2004) was then selected to use as a basis for developing the SPS. This instrument included several items used by Marchant, Paulson and Rothlisberg (2001) to evaluate children's perceptions of the socialising styles of parents. In the SPS, students rate their preferences for different styles based on six statements that describe characteristics of demanding school contexts, and six statements that describe responsive contexts. The full list of SPS items is shown in Table 3.4.

Given that the SPS was adapted from an existing instrument, the data collected from students (n = 275) were first used to provide a preliminary assessment of its internal structure. Descriptive statistics for the CPS items are shown in Table 3.5, while bivariate correlations for the CPS items are shown in Table 3.6. Items from the demandingness subscale are coded as D; all those from the responsiveness subscale are coded as R. All items in the scale have the common stem: "I prefer learning contexts in which…".

Table 3.4. Items in the SPS for students

SPS Subscale	SPS Item Codes and Item Statements
Demandingness	D1 - I prefer learning contexts in which regular homework is given
	D2 - I prefer learning contexts in which high academic standards are valued
	D3 - I prefer learning contexts in which there are clear rules to follow
	D4 - I prefer learning contexts in which teachers are strict
	D5 - I prefer learning contexts in which discipline is enforced
	D6 - I prefer learning contexts in which student behaviour is closely monitored
Responsiveness	R1 - I prefer learning contexts in which student opinions are valued
	R2 - I prefer learning contexts in which teachers take an interest in student activities
	R3 - I prefer learning contexts in which teachers give students choices
	R4 - I prefer learning contexts in which students make decisions
	R5 - I prefer learning contexts in which there are few rules
	R6 - I prefer learning contexts in which most student behaviour is tolerated

Table 3.5. Descriptive statistics for items in the SPS

SPS Item Statement	Mean	St. Dev.
PD1 - I prefer learning contexts in which regular homework is given.	2.46	1.12
PD2 - I prefer learning contexts in which teachers are strict.	2.34	1.12
PD3 - I prefer learning contexts in which high academic standards are valued.	3.62	1.11
PD4 - I prefer learning contexts in which there are clear rules to follow.	3.80	1.05
PD5 - I prefer learning contexts in which discipline is enforced.	3.15	1.12
PD6 - I prefer learning contexts in which student behaviour is closely monitored.	3.15	1.09
PR1 - I prefer learning contexts in which student opinions are valued.	4.32	0.81
PR2 - I prefer learning contexts in which decisions are made for students.	3.08	1.18
PR3 - I prefer learning contexts in which teachers take an interest in student activities.	3.96	0.95
PR4 - I prefer learning contexts in which there are few rules.	3.11	1.15
PR5 - I prefer learning contexts in which teachers give students choices.	4.11	0.86
PR6 - I prefer learning contexts in which most student behaviour is tolerated.	3.04	1.05

Table 3.6. Bivariate correlations for SPS items

CPS Items	PD1	PD2	PD3	PD4	PD5	PD6	PR1	PR2	PR3	PR4	PR5	PR6
PD1	--	.459**	.399**	.338**	.339**	.343**	.021	-.109	.134*	-.089	-.183**	-.131*
PD2		--	.421**	.325**	.430**	.408**	-.062	-.203**	.037	-.213**	-.247**	-.217**
PD3			--	.459**	.538**	.514**	.213**	-.107	.185**	-.210**	.038	-.180**
PD4				--	.576**	.455**	.234**	-.152**	.173**	-.248**	-.048	-.105
PD5					--	.674**	.099	-.292**	.215**	-.269**	-.120*	-.269**
PD6						--	.076	-.301**	.282**	-.195**	-.120*	-.240**
PR1							--	.086	.416**	-.072	.415**	.061
PR2								--	-.091	.076	.205**	.079
PR3									--	.052	.355**	-.106
PR4										--	.244**	.300**
PR5											--	.176**
PR6												--

** Significant at α = .001 (two-tailed); * Significant at α = .05 level (two-tailed)

Rotated component loadings for the items in the CPS are shown for the factor PCA solution are presented in Table 3.7. As indicated, the PCA on SPS item scores indicated a two-component structure that conformed to the proposed instrument structure, yielding a six-item demandingness measure and a six-item responsiveness measure. Together, these two components accounted for 52.38% of the total variance in the SPS scores. Whilst the internal consistency of the demandingness subscale was excellent (α = .83), the consistency of the responsiveness subscale was weaker (α = .47). The low α for the responsiveness subscale reflected low loadings for items P2, P3 and P4. When these three items were removed, Cronbach's αs on the three-item relatedness measure increased to an acceptable .66. The two components together then accounted for 58.14% of the total variance in student socialisation preferences.

3.4.2. Psychological needs fulfilment

To assess students' psychological needs fulfilment, items were drawn from the Activity Feelings State Scale (AFSS) developed by Reeve and Sickenius (1994). All AFSS items commenced with the stem, "When engaged in school-related tasks I feel…", followed by nine internal fulfilment need descriptors. Participants responded to each item on a scale from 1 (never) to 5 (always).

The AFSS is a 13-item measure, comprised of separate three and four item scales to evaluate students' needs for autonomy, competence and relatedness. These three components are elaborated below.

Table 3.7. Rotated component loadings for the SPS

CPS Items	Component	
	Demandingness α = .83	Responsiveness α = .47
PD5 - I prefer learning contexts in which discipline is enforced.	*.811*	.163
PD6 - I prefer learning contexts in which student behaviour is closely monitored.	*.769*	.174
PD2 - I prefer learning contexts in which teachers are strict.	*.691*	-.141
PD3 - I prefer learning contexts in which high academic standards are valued.	*.686*	.303
PD4 - I prefer learning contexts in which there are clear rules to follow.	*.660*	.273
PD1 - I prefer learning contexts in which regular homework is given.	*.593*	.016
PR4 - I prefer learning contexts in which there are few rules.	*-.435*	*.166*
PR6 - I prefer learning contexts in which most student behaviour is tolerated.	*-.417*	*.147*
PR2 - I prefer learning contexts in which decisions are made for students.	*-.392*	*.149*
PR1 - I prefer learning contexts in which student opinions are valued.	.038	*.778*
PR5 - I prefer learning contexts in which teachers give students choices.	-.329	*.758*
PR3 - I prefer learning contexts in which teachers take an interest in student activities.	.186	*.707*

1. The-three item AFSS *autonomy* subscale was used to assess the extent to which students perceived that schooling was meeting their need to engage in ways that supported their individualistic styles.

2. The-three item AFSS *competency* subscale was used to assess the extent to which students felt that their school tasks fulfilled their need to engage in ways that were exciting, productive and absorbing.

3. The-three item AFSS *relatedness* subscale was used to evaluate the extent to which students perceived that their schooling tasks fulfilled their need to engage in ways that connected them with others.

Table 3.8 presents items used within the AFSS subscales. Based on the original validation study (see Reeve & Sickenius, 1994), the internal consistency of the original AFSS subscales is high, with Cronbach's αs for *autonomy* averaging .61 (.53 to .69); for *competence* averaging .90 (.88 to .93), and for *relatedness*, averaging .75 (.63 to .83). Reeve and Sickenius (1994) reported that psychometrically, the individual subscales were internally consistent, largely uncorrelated, demonstrated high factorial validity, and correlated as expected with measures of related constructs. In the present study, a PCA performed on students' survey results indicated similarly that the three AFSS subscales represented separate constructs, and that all items loaded strongly on their respective components (loadings > .58, .80, and .71 for the autonomy, competence, and relatedness subscales, respectively). Internal consistencies for each subscale in the present study were also high, with αs = .84, .80, and .81 for the three subscales, respectively. These results supported the use of the AFSS subscales in the study.

Table 3.8. AFSS items used in the present study

Subscale	Item Statements
Need for Autonomy	• When engaged in school-related tasks, I feel free. • When engaged in school-related tasks, I feel I am offered choices of what to do. • When engaged in school-related tasks, I feel I want to do the work.
Need for Competency	• When engaged in school-related tasks, I feel that I have skills. • When engaged in school-related tasks, I feel that I have ability. • When engaged in school-related tasks, I feel that I complete tasks.
Need for Relatedness	• When engaged in school-related tasks, I feel involved with friends. • When engaged in school-related tasks, I feel part of a team. • When engaged in school-related tasks, I feel brotherly or sisterly.

3.4.3. Academic motivation

To provide a measure of students' global academic motivation, we adapted a seven-item subscale from the *Academic Motivation Scale* (AMS) by Vallerand et al. (1992). Each item commences with the stem, "Why are you going to school?" To each, participants respond on a 5-point scale ranging from 1 (never true for me) to 5 (always true for me). Table 3.9 shows the AMS subscale items used in the study. Based on the original validation by Vallerand et al. (1992), this subscale has demonstrated sound psychometric properties. In particular, the subscale has a high level of internal consistency, with Vallerand et al. reporting $\alpha = .78$ for the subscale. In the present study, a PCA performed on students' survey results indicated that the three-item measure based on the AMS was unidimensional, with all items loading on a single factor (loadings > .67). A high

level of internal consistency (α = .72) was also indicated in this study, confirming the original results reported by Vallerand et al. (1992).

Table 3.9. AMS items used in the present study

Subscale	Item statements
Global Academic Motivation	• Honestly, I don't know; I really feel that I am wasting my time at school (reversed). • In order to get a high paying job later on. • To prove to myself that I can graduate from high school. • Because I think that a high school education will help me better prepare for the career I have chosen. • Because I experience pleasure and satisfaction while learning new things. • For the pleasure I experience while surpassing myself in my studies. • For the high feeling that I experience while reading on various interesting subjects.

3.4.4. Intrinsic motivation

Ryan and Connell's (1989) *Academic Self-Regulation Questionnaire* (ASRQ) was selected to evaluate students' levels of intrinsic motivation. Items within this subscale are shown in Table 3.10. The ASRQ is very widely used in educational settings, and has been shown to have excellent psychometric properties (Grolnick & Ryan, 1987, 1989; Grolnick, Ryan, & Deci, 1991; Miserandino, 1996; Patrick, Skinner, & Connell, 1989; Ryan & Connell, 1989; Vallerand et al., 1997). The questionnaire begins with the stem, "The reason I do schoolwork is . . .". Each item then provides a list of 13 different reasons that the respondent can choose, each with its own response scale (1 = never, through to 5 = always). Six ASRQ response items were used in this study to assess students' intrinsic and 'intrinsic-like motivation' levels.

Table 3.10. ASRQ items used in the present study

Subscale	Item Statements
Intrinsic Motivation	• The reason I do schoolwork is because I really enjoy the experience. • The reason I do schoolwork is because I find it so interesting. • The reason I do schoolwork is because there are lots of appealing things to do. • The reason I do schoolwork is because I see the importance of learning. • The reason I do schoolwork is because I really appreciate and understand the importance of school. • The reason I do schoolwork is because to me, education is just so important - so valuable.

The PCA conducted in the present study on the ASRQ intrinsic motivation subscale yielded results consistent with previous validations of the ASRQ, indicating that the intrinsic motivation component is unidimensional (all items in the subscale loaded on a single factor, with loadings > .62), and has a high level of internal consistency (α = .82). These results supported the use of the instrument to measure intrinsic motivation in the study.

3.4.5. Achievement goal orientations

Items from the *Achievement Goals Questionnaire* (AGQ) developed by Elliot and McGregor (2001) were used in the study to evaluate students' achievement goal orientations. Three items represented each of two achievement goals assessed in the study: *performance approach* and *mastery approach*. Participants indicated the extent to which they thought each item was true for them on a response scale from 1 (never) to 5 (always). Items from the AGQ that were used in the present study are shown in Table 3.11.

Table 3.11. AGS items used in the present study

Subscale	Items
Performance-approach goal subscale	• It is important for me to do better than other students. • It is important for me to do well in comparison with others in the class. • My goal in class is to get a better grade than most of the other students.
Mastery-approach goal subscale	• I want to learn as much as possible from class. • It is important to me to understand the content of class as thoroughly as possible. • I desire to completely master the material presented in class.

The original validation of the ACQ by Elliot and McGregor (2001) indicated high levels of internal consistency for both subscales (αs = .87 and .92 for the mastery and performance approach subscales, respectively). The PCA performed in the present study confirmed that the two subscales were distinct and unidimensional, with all items loaded on strongly on its respective factor (loadings > .67). Both subscales also demonstrated a high level of internal consistency (αs = .72 and .84 for the mastery and performance subscales, respectively). These findings supported the use of the instrument in the study.

3.4.6. Outcome expectancies

Students' expectations of their future performance at school (i.e., their outcome expectancies) were evaluated using the three-item *Anticipated Academic Performance* subscale developed by Vallerand et al. (1997). This subscale has been reported by the developers to have a high level of internal consistency (α = .79). Table 3.12 shows the three items in the measure that were used in the present study.

Table 3.13. AAP items used in the present study

Subscale	Items
Outcome Expectancies Subscale	• In terms of academic performance, I expect to do well. • In terms of academic performance, I expect to do better than most of my classmates. • My expectancies for career success are very, very high.

Students respond to each item in the subscale on a 5-point scale (1 = never true for me to 5 = always true for me). In the present study, the measure was found to be unidimensional using a PCA (item loadings > .72), and to have a high level of internal consistency (α = .81).

3.4.7. School satisfaction

School satisfaction was assessed using the eight-item school domain-specific subscale of the *Brief Multidimensional Life Satisfaction Scale*, or BMSLSS (Huebner, 1994; Ash & Huebner, 1998, Gilman, Huebner & Laughlin, 2000). The original validation of this instrument (Huebner, 1994) showed a high level of internal consistency for this scale, with a Cronbach's α = .85. Further psychometric evaluations of the BMLSS has shown high levels of criterion-related validity and construct validity among both middle school and high school students (see Seligson, J. L., Huebner, E. S., & Valois, R. F. (2003). Preliminary validation of the brief multidimensional life satisfaction scale (BMLSS). Social Indicators Research, 61, 121-145). Table 3.14 shows the BMLSS subscale items used in the present study. For each item, students rate how true the statement is for them on a 5-point scale (1 = never true for me to 5 = always true for me). In the present study, the school satisfaction subscale was found to measure a single construct (item loadings > .61), and to have a high level of internal consistency (α = .86).

Table 3.14. BMLSS School Satisfaction items used in the present study

Subscale	Item Statements
School Satisfaction	• I like being in school. • I look forward to going to school. • School is interesting. • I wish I didn't have to go to school (reversed). • There are many things about school I don't like. • I enjoy school activities. • I learn a lot at school. • I feel bad at school (reversed).

3.4.8. Life satisfaction

Students' life satisfaction, which was taken in this study as an index of students' overall wellbeing, was also assessed using a subscale from BMLSS. Table 3.15 shows the six BMLSS items used in this study. Again, for each item, students were asked to rate how true the statement was for them, on a 5-point scale (1 = never true for me to 5 = always true for me). As noted in Section 3.4.7, the BMLSS has been demonstrated in previous studies to have sound psychometric properties within middle and high school samples. In the present study, the life satisfaction subscale was found to assess a single construct using PCA (item loadings > .60), and to have a high level of internal consistency (α = .84).

Table 3.15. BLMSS Life Satisfaction items used in the present study

Subscale	Item Statements
Life Satisfaction	• I would describe my satisfaction with my family life as… • I would describe my satisfaction with my friends as... • I would describe my satisfaction with my school life as ... • I would describe my satisfaction with where I live as... • I would describe my satisfaction with myself as... • I would describe my satisfaction with my overall life as…

3.4.9. Perceived school support

To assess students' perceptions of the level of support that schools provided for their autonomy, learning, and social engagement, a Perceived Social Support (PSS) measure was developed. The PSS included items drawn from two published instruments: the *Learning Climate Questionnaire* (LCQ) by Williams and Deci (1996) and the *Social Support for Learning Questionnaire* (SSLQ) by Lee and Smith (1993, 1999). These items were used to assess students' perceptions of school support as follows:

(i) *Perceived School Support for Student Autonomy* was evaluated using a subscale from the LCQ. The LCQ is an eight-item subscale that measures teachers' support for student autonomy. The LCQ asks students to think about their teachers and respond to questions such as; "My teachers provide me with choices and options".

(ii) *Perceived School Support for Learning* was evaluated using a seven-item SSLQ subscale that measures the degree to which students feel that their schools offer extra support for their learning. In this subscale, students respond to questions like, "At my school teachers notice if students are having trouble learning something".

(iii) *Perceived School Social Support* was evaluated using a seven-item subscale, also from the SSLQ, that measures the extent to which students feel that their schools support positive social engagement and relationships. This subscale includes questions like, "At my school staff can be trusted" and "At my school staff, know who students are".

Item statements in the PSS are shown in Table 3.16. Responses are scored on a 5 point scale from 1 = never to 5 = always for all items. All of these subscales have previously been evaluated and have shown sound psychometric properties. For example, previous research on the LCQ has indicated high levels of internal consistency (α = .92) for this subscale, and favourable construct validity evidence (Black & Deci, 2000; Williams & Deci, 1996; Williams, Weiner, Markakis, Reeve, & Deci, 1994).

3.5. Procedures

Permission to proceed with the study was first obtained by the UWA Human Ethics Committee. Following this, schools were approached by the student researcher to participate in the study. This was conducted through a variety of means, including face-to-face meetings; telephone conversations; and emails. As indicated previously, of the schools approached to participate, only 24% consented. The primary reason cited by the majority of schools that declined to participate was sensitivity about the school choice issue, and fear that the school might be identifiable in subsequent reports. Despite assurances from the researcher that all data would be anonymised in any reports on the results of the study, the risk was deemed too high by these principals, given the high level of sensitivity surrounding school performance.

Table 3.16. Items in the PSS

Subscale	Item Statements
Teacher Support for Student Autonomy	• At my school, teachers provide me with choices and options. • At my school, teachers convey their confidence in my ability to become what I want to become. • At my school, teachers try to understand how I see things before they suggest how they would handle a situation. • At my school, when I offer suggestions to the teachers, they listen carefully and consider my suggestion seriously. • At my school, teachers show me respect. • At my school, teachers encourage me to ask questions. • At my school, I am able to share my feelings with teachers about what I want to become. • At my school, I feel understood by teachers.
Teacher Support for Learning	• At my school, teachers notice if students are having trouble learning something • At my school, teachers relate the subject to students personal interest. • At my school, really listen to what students say. • At my school, help students catch-up if they are behind. • At my school, don't know students very well (reversed). • At my school, believe students can do well at school. • At my school, are willing to give help on schoolwork if students need it.
School Social Support	• At my school, if there is a problem staff and students get together to solve it. • At my school, staff can be trusted. • At my school, staff can be counted on to see that students are safe and don't get into trouble. • At my school, buildings and equipment are well kept. • At my school, there are staff that students look up to. • At my school, staff know who the students are. • At my school, no one cares much about what happens there (reversed).

In the schools that did agree to participate, principals were asked to facilitate the process of obtaining responses from students and teachers. These principals were provided with parent survey packs to send home to each student's family for completion. These were then returned to a school-based project coordinator. This procedure resulted in a very high return rate of 93% from parents, which gave assurance that the sample was representative. Students completed all of their survey questions within one sitting, which was supervised by the classroom teacher. The teacher briefed the students on the nature of the surveys, and provided two practice examples to all students. The teacher was available to answer any questions whilst students were entering their responses. Collation of survey responses, data entry and statistical analysis were then completed by the researcher.

Chapter 4. Results

This chapter presents the results of the analyses performed on the parent and student survey data collected. The presentation of results is organised into sections based on the five research questions posed in Chapter 2. This chapter focuses only on presenting the outcomes of the statistical analyses performed. The outcomes are summarised and discussed in Chapter 5, which also provides practical recommendations for parents, teachers and policy-makers, as well as directions for future research, that stem from the study findings.

4.1. Research Question 1: Can WA secondary schools be classified into distinct socialisation types?

To investigate whether the five schools involved in the study differed significantly in terms of their socialisation cultures, a Multivariate Analysis of Variance (MANOVA) was performed, with school entered as the independent variable, and parents' ratings on the two *School Climate Questionnaire* (SCQ) subscales (i.e., *demandingness* and *responsiveness*) as dependent variables. A MANOVA was performed initially to assess whether there appeared to be an overall effect of school on the SCQ subscale scores. Univariate Analyses of Variance (ANOVAs) were then performed to identify the effect of school on the two individual SCQ subscales. Prior to conducting these analyses, the data were screened to identify any violations of underlying assumptions. All of these assessments indicated satisfactory conformity to relevant MANOVA and ANOVA assumptions (i.e., normality, outliers, linearity, and homogeneity of variance).

The MANOVA performed on parents' SCQ ratings indicated a significant difference across the five schools, Wilks' Lambda $\lambda = .84$, $F(8,600) = 7.09$, $p < .001$, partial $\eta^2 = .09$. This result indicates that, overall, participant schools were

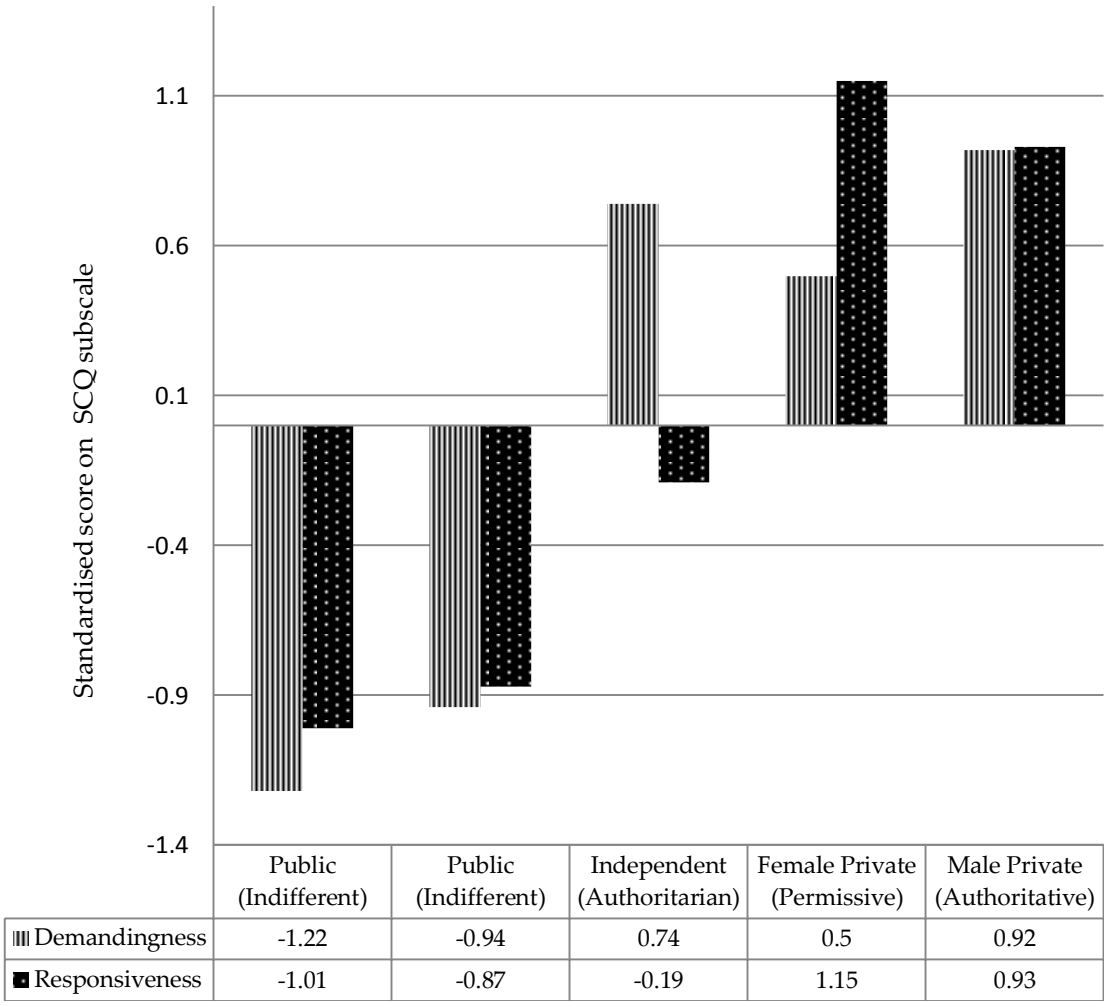
perceived by parents to differ significantly in their socialisation styles. Univariate ANOVAs, conducted separately for the two SCQ subscales, indicated that schools differed significantly both in terms of their perceived levels of *demandingness* ($F(4,301) = 6.81$, $p < .001$, partial $\eta^2 = .08$) and in terms of their perceived levels of *responsiveness* ($F(4,301 = 11.38$, $p < .001$, partial $\eta^2 = .13$). Tukey's HSD post-hoc tests, performed to determine which of the means differed significantly from one another, are shown in Table 4.1.

Table 4.1. Post-hoc comparisons of parents' SCQ ratings

Component	School 1	School 2	School 3	School 4	School 5
Demandingness	M = 4.053* 1<3 1<4 1<5	M = 4.097* 2<3 2<4 2<5	M = 4.378* 3>1 3>2	M = 4.341* 4>1 4>2	M = 4.411* 5>1 5>2
Responsiveness	3.686* 1<4 1<5	3.723* 2<4 2<5	3.897* 3<4 3<5	4.243* 4>1 4>2 4>3	4.187* 5>1 5>2 5>3
School Type	Public Co-ed.	Public Co-ed.	Indep. Co-ed.	Female Single-Gender	Male Single-Gender

* The mean difference is significant at $\alpha = .05$.

The pattern of mean parent ratings obtained across the five schools in the sample is shown in Figure 4.1. For ease of comparison, the means for each subscale were converted to standard form (i.e., *z*-scores), to highlight differences between the schools independently of the scales of the two measures. As indicated, in terms of their relative levels of demandingness and responsiveness, the schools aligned broadly with the socialisation styles outlined in Maccoby and Martin's (1983) socialisation typology.



	Public (Indifferent)	Public (Indifferent)	Independent (Authoritarian)	Female Private (Permissive)	Male Private (Authoritative)
Demandingness	-1.22	-0.94	0.74	0.5	0.92
Responsiveness	-1.01	-0.87	-0.19	1.15	0.93

Figure 4.1. Socialisation styles of participant schools

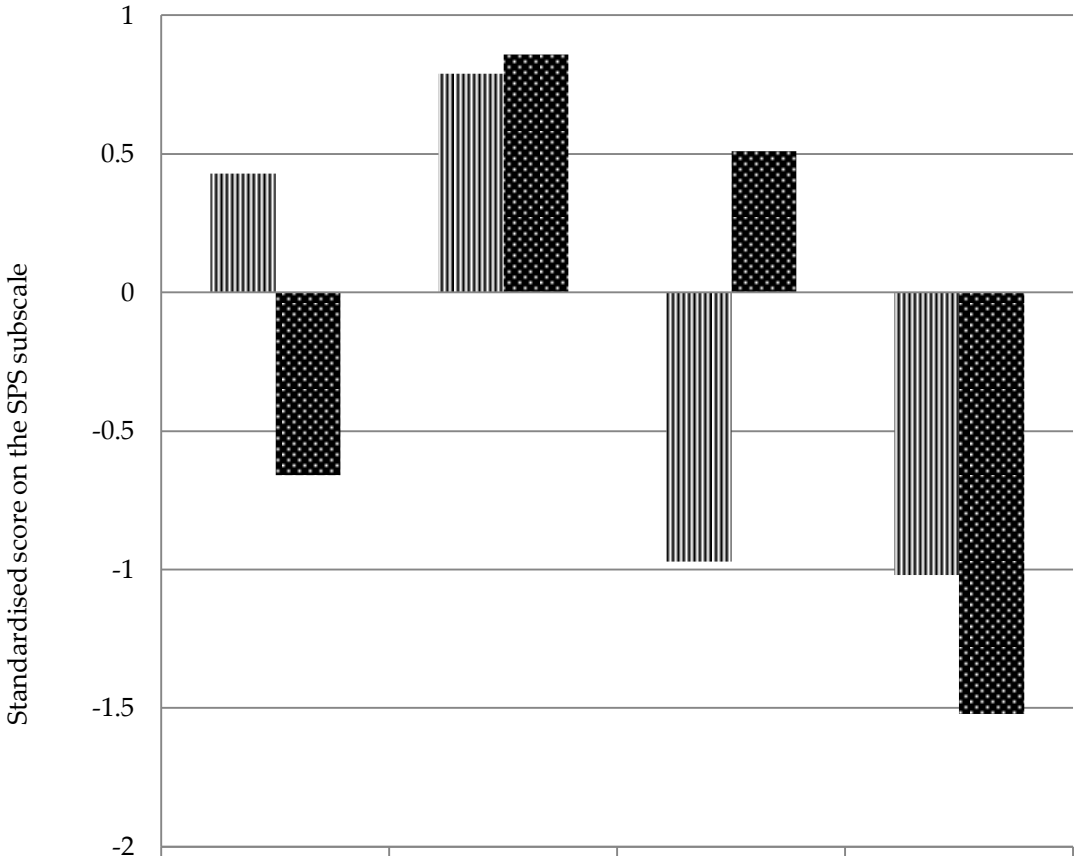
The two public schools in the sample were labelled *indifferent* in terms of their socialisation styles, given that both were rated relatively low on both the demandingness and the responsiveness subscales. In contrast, the independent school was classified as *authoritarian*, based on parents' ratings of this school as high in demandingness, but low in responsiveness. The male single-gender private school was deemed to be *authoritative* in its socialisation style, given that parents in this school rated this school to be high both in demandingness and in responsiveness.

The female single-gender private school was rated as *permissive*, given that parents rated this school to be far higher in responsiveness than in demandingness. It should be noted here that, this school did not strictly meet the classification of a truly permissive school, because the school was also higher than the two public schools in terms of its levels of demandingness. In this school, however, parents clearly perceived levels of demandingness to be lower than levels of responsiveness, and demandingness ratings for this school were the lowest amongst the three non-government schools in the sample. The female single-gender school also attracted the highest responsive ratings within the sample. We therefore concluded that of the four socialisation types specified, permissive was the best classification 'fit' for this school.

4.2. Research Question 2: Can students be clustered into distinct groups based on their preferences for contextual demandingness and responsiveness?

Cluster analysis was used to determine whether students could be grouped by their socialisation preference ratings. Cluster analysis provides a means by which large samples can be reduced into manageable groups, based on response profiles across a broad range of measures. When data are analysed in this way, members that are placed in the same cluster will be more similar to one another (based on their score profiles across all variables) than they are to members of other clusters. *K*-means clustering is a non-hierarchical method based on maximising the distinctiveness between each of a given number of clusters. *K*-means is a centroid model of cluster analysis – in other words, the *K*-means algorithm represents each cluster by a single mean vector.

To determine whether students fell into distinct clusters in this study, a *K*-means analysis was conducted on the demandingness and responsiveness subscale scores of all students. These scores were first converted to standard form (i.e., z-scores) for entry to the analysis. Using Beale's *F* test (see Beale, 1969a, 1969b), which tests whether a solution with *k* clusters is improved significantly by a solution with more clusters, students fell into four main groups based on their demandingness and responsiveness preferences. The profiles of the four groups, in terms of mean demandingness and responsiveness scores, are presented in Figure 4.2.



	Authoritarian	Authoritative	Permissive	Indifferent
Demandingness	0.43	0.79	-0.97	-1.02
Responsiveness	-0.66	0.86	0.51	-1.52

Figure 4.2. Student clusters based on socialisation preferences

As indicated, one cluster of students within the group was deemed to have a preference for *authoritarian* contexts. Students in this cluster reported high levels of preference for demandingness, and relatively low levels of preference for responsiveness, in their school contexts. This group accounted for approximately 31% of the participant sample. A second cluster, who reported a preference for high levels of *both* demandingness *and* responsiveness, was labelled *authoritative*, and also accounted for approximately 31% of the sample. A third cluster, who reported very low preferences for demandingness, yet high preferences for responsiveness, was labelled *permissive*, and accounted for around 26% of the total sample. The fourth, smaller cluster, reported a preference for contexts that were low in both demandingness and responsiveness. This group was labelled *indifferent*, and accounted for approximately 12% of the total student sample.

The preference clusters obtained in this study are aligned well with the socialisation preference styles identified in socialisation theory. These results suggest that, like school socialisation types, students tend to group into distinct groups based on their preferences for school demandingness and responsiveness.

To determine whether students' socialisation preferences were aligned with the socialisation styles of their respective schools, an alignment index was then computed for each student as follows:

> (i) Students who were classified as having a preference for *authoritarian* contexts were deemed to be 'aligned' if the school they attended was classed as *authoritarian* (i.e., if they attended the boy's private school).

Students attending the same school whose preferences were anything other than authoritarian were deemed to be 'not aligned'.

(ii) Students who were classified as having a preference for *authoritative* contexts were deemed to be aligned to their schools if their school had been classed as *authoritative* (i.e., the co-educational independent school); all others attending the same school were deemed to be 'not aligned' based on their socialisation preferences.

(iii) Students classified as having a preference for *permissive* contexts were deemed to be aligned to their schools if their school was classed as *permissive* (i.e., the girls private school); all others attending the same school were deemed to be 'not aligned' based on their socialisation preferences.

(iv) Students who were classified as having a preference for *indifferent* contexts were deemed to be aligned to their schools if their school had been classed as *indifferent* (i.e., one of the two co-educational public schools); all others attending the same school were deemed to be 'not aligned' based on their socialisation preferences.

Each student within the sample was given a dichotomous alignment index based on these comparisons. This alignment index was then used as an independent variable in all subsequent analyses.

4.3. Research Question 3: Is there a relationship between boys' engagement levels and their alignment with their school's socialisation type?

To investigate whether boys who were well-aligned to their schooling contexts reported higher levels of engagement than did those who were not well-aligned, a MANOVA was performed. In the MANOVA, alignment (aligned vs. not aligned) was entered as the independent variable, with scores on all of the engagement measures entered as dependent variables. A MANOVA was performed initially to assess whether there appeared to be an overall effect of alignment on the engagement variables. MANOVA was a suitable approach to address this question, given that modest to moderate correlations (*r*s ranging from .21 to .64) were observed between pairs of measures within the set (see Maxwell, 2001). Univariate ANOVAs were then performed to identify the effect of alignment on specific measures that contributed to the overall multivariate *F*.

Prior to conducting these analyses, the data were screened to identify any significant violations of MANOVA and ANOVA assumptions. All of these assessments indicated satisfactory conformity to the underlying assumptions. While minor deviations from normality were observed across several of the dependent measures, as Tabachnick and Fiddell (2013) note, *F* is generally robust to such violations provided that the cell sizes exceed 20. Given that this criterion was met in the present case, the deviations observed would not affect the *F* ratio significantly. Conformity to all other assumptions with regard to outliers, linearity, and homogeneity of variance was tenable. Descriptive statistics for all of the engagement variables for boys, separated by alignment category, are shown in Table 4.2.

Table 4.2. Descriptive statistics for engagement (male sample)

Engagement Measure	Alignment Category	Mean	St. Dev.	No.
Autonomy	Not Aligned	3.32	0.71	113
	Aligned	3.56	0.81	43
	Total	3.39	0.74	156
Competency	Not Aligned	4.10	0.60	113
	Aligned	4.29	0.65	43
	Total	4.15	0.62	156
Relatedness	Not Aligned	3.63	0.87	113
	Aligned	3.80	0.90	43
	Total	3.68	0.88	156
Academic Motivation	Not Aligned	3.68	0.67	113
	Aligned	3.99	0.66	43
	Total	3.77	0.68	156
Intrinsic Motivation	Not Aligned	3.85	0.77	113
	Aligned	4.26	0.77	43
	Total	3.96	0.79	156
Performance Approach	Not Aligned	3.40	0.85	113
	Aligned	3.65	1.04	43
	Total	3.47	0.91	156
Mastery Approach	Not Aligned	3.84	0.70	113
	Aligned	4.13	0.96	43
	Total	3.92	0.79	156
Outcome Expectancies	Not Aligned	3.60	0.78	113
	Aligned	4.00	0.88	43
	Total	3.71	0.83	156
School Satisfaction	Not Aligned	3.54	0.60	113
	Aligned	3.69	0.76	43
	Total	3.58	0.65	156
Life Satisfaction	Not Aligned	4.22	0.58	113
	Aligned	4.45	0.66	43
	Total	4.28	0.61	156

The MANOVA on these data indicated a significant multivariate main effect for alignment, Wilks' Lambda $\lambda = .81$, $F(16,139) = 1.99$, $p = .02$, $\eta^2 = .19$. Univariate ANOVAs were then performed for each of the individual engagement measures in the set. Given the exploratory nature of these analyses, a Bonferroni adjustment was *not* used to correct the α level at which each of the univariate tests was conducted. Numerous researchers have now pointed to flaws in the reasoning behind the use of these adjustments, arguing that these often 'do more harm than good' in terms of maintaining overall error rates (see Gelman, Hill & Yajima, 2012; Perneger, 1998). Instead, note was taken of the actual probability level obtained for the individual measure, and conclusions were adjusted based on the level of confidence that could be placed on the results in light of the *p*-value obtained. Table 4.3 shows the outcomes of the univariate ANOVAs performed.

Table 4.3. Univariate ANOVAs on engagement (male sample)

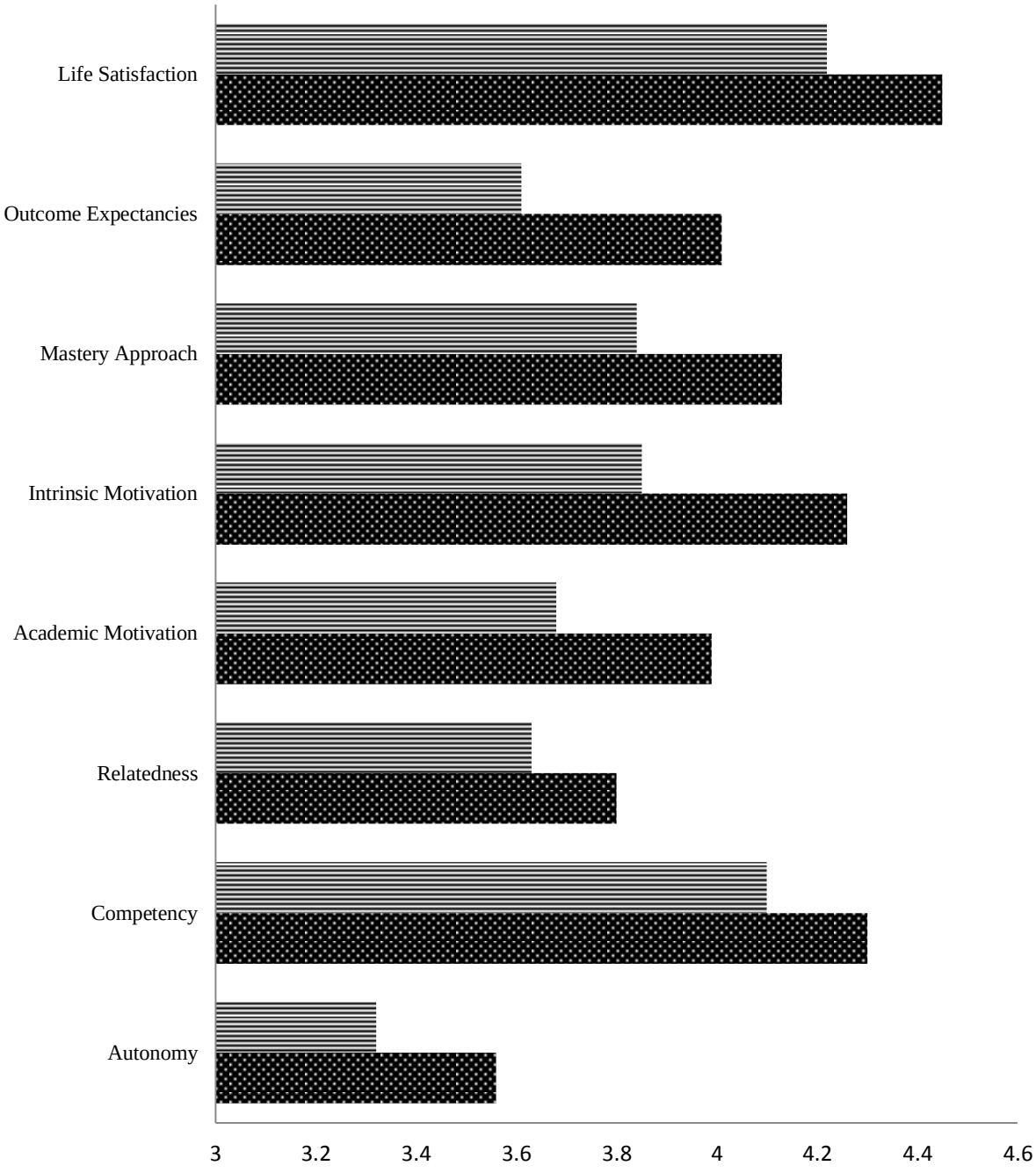
Measure	df_{EFFECT}	df_{ERROR}	MS_{EFFECT}	MS_{ERROR}	F	Sig.	η^2
Autonomy	1	154	1.70	.54	3.13	.08	.02
Competency	1	154	1.21	.38	3.22	.08	.02
Relatedness	1	154	.87	.77	1.13	.29	.007
Academic Motivation	1	154	2.88	.45	6.47*	.01	.04
Intrinsic Motivation	1	154	5.07	.59	8.55**	.004	.05
Performance Approach	1	154	1.95	.82	2.37	.13	.02
Mastery Approach	1	154	2.69	.61	4.45*	.04	.03
Outcome Expectancies	1	154	4.87	.66	7.39**	.007	.05
School Satisfaction	1	154	.72	.42	1.71	.19	.01
Life Satisfaction	1	154	1.65	.36	4.58*	.03	.03

* Significant at α=.05; ** Significant at α=.01

As indicated, the univariate ANOVAs indicated that, for boys, the alignment between students' socialisation preferences and their school socialisation type was significantly correlated with multiple engagement indicators. Specifically, boys in the aligned group had significantly higher levels of academic motivation, intrinsic motivation, mastery approach, outcome expectancies, and life satisfaction, than did those who were misaligned with their schooling contexts. Further, although these effects did not reach significance (ps < .08), there was also a trend toward greater autonomy and competency needs fulfilment for boys in the aligned condition. The means obtained on measures where there was a significant, or near-significant, effect for student-school alignment are shown in Figure 4.3.

4.4. Research Question 4: Is there a relationship between girls' engagement levels and their alignment with their school's socialisation type?

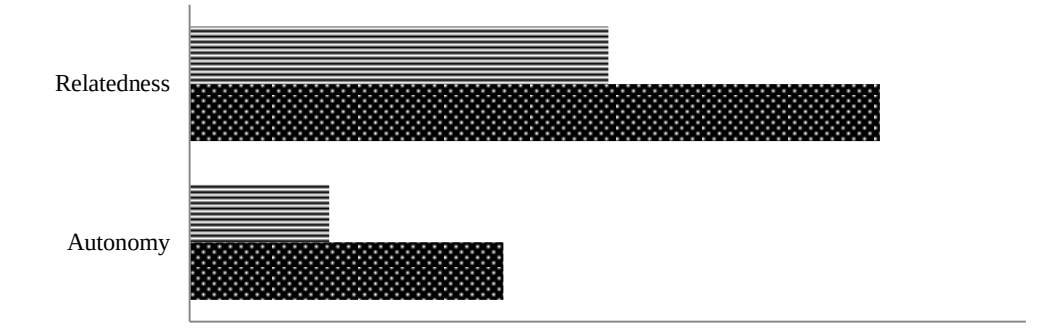
Again, to determine whether girls who were well-aligned to their schooling contexts reported higher levels of engagement than did those who were not well-aligned, a MANOVA was performed, with alignment (aligned vs. not aligned) as the sole independent variable, and scores on all of the engagement measures entered as dependent variables. Screening assessments performed prior to conducting these analyses indicated satisfactory conformity to MANOVA and ANOVA assumptions in terms of normality, outliers, linearity, and homogeneity of variance.



	Autonomy	Competency	Relatedness	Academic Motivation	Intrinsic Motivation	Mastery Approach	Outcome Expectancies	Life Satisfaction
Not aligned	3.32	4.1	3.63	3.68	3.85	3.84	3.61	4.22
Aligned	3.56	4.3	3.8	3.99	4.26	4.13	4.01	4.45

Figure 4.3. Mean engagement scores for 'aligned' and 'not aligned' boys

Descriptive statistics for all of the engagement variables for girls, separated by alignment category, are shown in Table 4.4. In contrast to the results obtained for boys, the MANOVA on these data indicated no significant multivariate main effect for alignment, Wilks' Lambda $\lambda = .837$, $F(16,102) = 1.24$, $p = .25$. The univariate ANOVAs confirmed this overall pattern: While the effect of alignment approached significance for girls on the Autonomy subscale of the AFSS ($F(1,117) = 3.70$, $p = .06$, $\eta^2 = .03$) and reached significance on the AFSS Relatedness subscale ($F(1,117) = 6.02$, $p = .02$, $\eta^2 = .05$), no other effects approached or reached significance within the set. The pattern of means for the AFSS subscales for girls is shown in Figure 4.4.



	Autonomy	Relatedness
Not Aligned	3.2	3.6
Aligned	3.45	3.99

Figure 4.4. Mean engagement scores for 'aligned' and 'not aligned' girls

Table 4.4. Descriptive statistics for engagement (female sample)

Engagement Subscale	Alignment Category	Man	St. Dev.	No.
Autonomy	Not Aligned	3.20	0.68	80
	Aligned	3.45	0.66	39
	Total	3.28	0.68	119
Competency	Not Aligned	4.00	0.59	80
	Aligned	4.12	0.68	39
	Total	4.04	0.62	119
Relatedness	Not Aligned	3.62	0.80	80
	Aligned	3.99	0.71	39
	Total	3.74	0.79	119
Intrinsic Motivation	Not Aligned	4.06	0.74	80
	Aligned	3.94	0.70	39
	Total	4.02	0.73	119
Performance Approach	Not Aligned	3.32	0.86	80
	Aligned	3.15	0.85	39
	Total	3.26	0.86	119
Mastery Approach	Not Aligned	3.92	0.66	80
	Aligned	3.81	0.73	39
	Total	3.88	0.68	119
School Satisfaction	Not Aligned	3.62	0.54	80
	Aligned	3.48	0.61	39
	Total	3.58	0.57	119
Academic Motivation	Not Aligned	3.84	0.62	80
	Aligned	3.79	0.60	39
	Total	3.82	0.61	119
Outcome Expectancies	Not Aligned	3.60	0.79	80
	Aligned	3.45	0.75	39
	Total	3.55	0.78	119
Life Satisfaction	Not Aligned	4.24	0.60	80
	Aligned	4.25	0.64	39
	Total	4.24	0.61	119

4.5. Research Question 5: Do perceptions of school supports mediate the links between student-school alignment and engagement?

To address the final research question, two path analyses were performed initially, one for girls, and one for boys. Given that no significant effects were observed in the model for girls, however, only the results for boys are presented here. Path analysis represents a special case of structural equation modelling (SEM), in which all of the variables in the model are observed. Path analysis thus models only the structural relationships between *observed* variables. Path analysis is used primarily to examine mediation effects in data: That is, cases in which one or more variables is hypothesised to mediate the relationship between two or more others. Analyses of mediation effects are geared ultimately toward understanding the mechanisms through given variables (the causal variables) affect others (the outcome variables).

In his description of path analysis, Asher (1983, pp. 36-37) notes that path analysis "allows us to move beyond the estimation of direct effects [and] examine the causal processes underlying the observed relationships and to estimate the relative importance of alternative paths of influence… The model testing permitted by path analysis further encourages a more explicitly causal approach in the search for explanations of the phenomena under investigation."

Several terms that are used in path analysis should be defined here. Path analysis decomposes variable relationships into *direct* and *indirect* effects. *Direct effects* in a path analysis are relationships between two variables without an intervening third variable, while *indirect effects* connect two variables through an intervening third variable. The *total effect* of one variable on another is computed simply as the sum of the direct and indirect effects between these variables. *Exogenous* variables in path analysis are those whose causes are outside the scope of a model, while *endogenous* variables are those whose cause(s) are represented in a model. *Path coefficients* provide a numerical estimate of the relationships between two variables in a path analysis.

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In the present study, path analysis was used to determine whether a model in which student-school alignment influenced engagement through students' perceptions of school support levels. As argued previously, students attending schools that are aligned to their preferences for demandingness and responsiveness are more likely than others to feel that their schools provide adequate support for their learning. This may reflect either actual or perceived differences in the supports provided by the schools – investigating the latter question was deemed to be beyond the scope of the current thesis. Therefore, the primary hypothesis tested by the path analysis conducted here was that student-school alignment influenced the student engagement variables identified as significant correlates in the previously conducted MANOVA for boys first by affecting students' perceptions of the supports provided by their schools.

It should be noted here that *all* of the direct effects within the path model between student-school alignment and student engagement were tested previously in the MANOVA reported in Section 4.3. Thus, the sole purpose of conducting the path analysis for the male sample was to determine the extent to which the effects seen in the earlier MANOVA were direct (i.e., mediated by factors that have not yet been identified), and the extent to which these effects were mediated by students' perceptions of school supports. This analysis thus focused on the direct and the indirect effects of student-school alignment on student engagement levels, using LISREL 8.80 (Jöreskog & Sörbom, 2006) as the statistical package. Table 4.5 reports descriptive statistics for boys on each of the variables entered into the path analysis. Bivariate correlations for the path analysis variables are reported in Table 4.6, with outcomes reported in Table 4.7.

Table 4.5. Descriptive statistics for variables in the path analysis

Components of the Path Analysis	Mean	St. Dev.	No.
Student-School alignment	0.28	0.45	156
Autonomy Support	3.68	0.75	156
Learning Support	3.82	0.65	156
Social Support	3.91	0.57	156
Autonomy	3.39	0.74	156
Competency	4.15	0.62	156
Intrinsic Motivation	3.96	0.79	156
Academic Motivation	3.77	0.68	156
Outcome Expectancies	3.71	0.83	156
Life Satisfaction	4.28	0.61	156

Table 4.6. Bivariate correlations between variables in the path analysis

Component	1	2	3	4	5	6	7	8	9	10
1. Student-School Alignment	--	.218**	.208**	.173*	.141	.143	.229**	.201*	.214**	.170*
2. Autonomy Support		--	.734**	.744**	.575**	.460**	.530**	.505**	.349**	.579**
3. Learning Support			--	.687**	.520**	.437**	.482**	.454**	.231**	.578**
4. Social Support				--	.499**	.400**	.411**	.452**	.325**	.595**
5. Autonomy					--	.491**	.463**	.412**	.362**	.458**
6. Competency						--	.519**	.421**	.592**	.419**
7. Intrinsic Motivation							--	.635**	.556**	.431**
8. Academic Motivation								--	.532**	.447**
9. Outcome Expectancies									--	.375**
10. Life Satisfaction										--

** Significant at α = .001 (two-tailed); * Significant at α = .05 level (two-tailed)

Table 4.7. Path analysis outcomes for male sample

Variables	R^2	Student-School Alignment	Autonomy Support	Learning Support	Social Support
Autonomy Support	.05	DE=.22(.08)**	--	--	--
Learning Support	.04	DE=.21(.08)**	--	--	--
Social Support	.03	DE=.17(.08)*	--	--	--
AFSS Autonomy	.23	DE=.01(.07) IE=.13(.04)**	DE=.37(.06)**	DE=.18(.06)**	DE=.10(.06)
AFSS Competency	.14	DE=.03(.07) IE=.11(.03)**	DE=.26(.07)**	DE=.19(.07)**	DE=.07(.07)
Intrinsic Motivation	.25	DE=.11(.07) IE=.12(.04)**	DE=.38(.07)**	DE=.20(.07)**	DE=-.03(.07)
Outcome Expectancies	.16	DE=.15(.08) IE=.06(.04)	DE=.27(.07)**	DE=-.13(.07)	DE=.18(.07)**
Academic Motivation	.18	DE=.09(.07) IE=.11(.04)**	DE=.29(.06)**	DE=.13(.07)	DE=.13(.07)
Life Satisfaction	.25	DE=.03(.06) IE=.14(.04)**	DE=.18(.06)**	DE=.24(.06)**	DE=.29(.06)**

* Significant at α = .01 or .05.

Figure 4.5 presents the significant direct effects obtained within the model. Figure 4.6 presents significant total indirect effects within the path model. The parameter estimates in Figure 4.5 are standardised path co-efficients, with associated standard errors in parentheses. In the diagram, the ratio of each parameter estimate to its standard error is distributed as a *z*-statistic**.** Thus, values in excess of 1.96 are deemed significant at the 0.05 level, and those in excess of 2.56 are deemed significant at the 0.01 level (Hoyle, 1995). Standardised path coefficients with absolute values less than 0.10 were interpreted to indicate a modest effect, values around 0.30 a medium effect, and those greater than 0.50, a large effect.

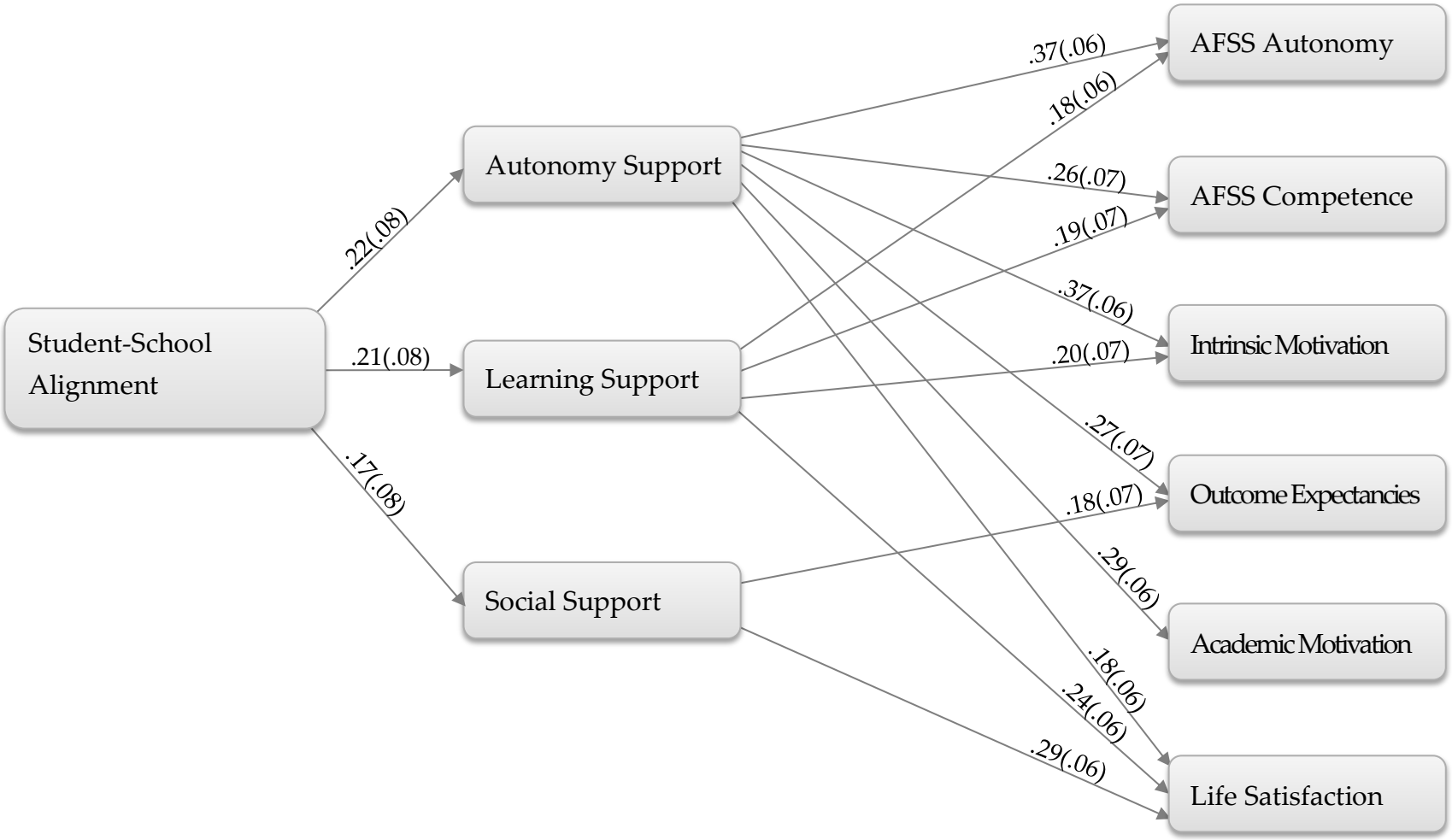

Figure 4.5. Significant direct effects in path model

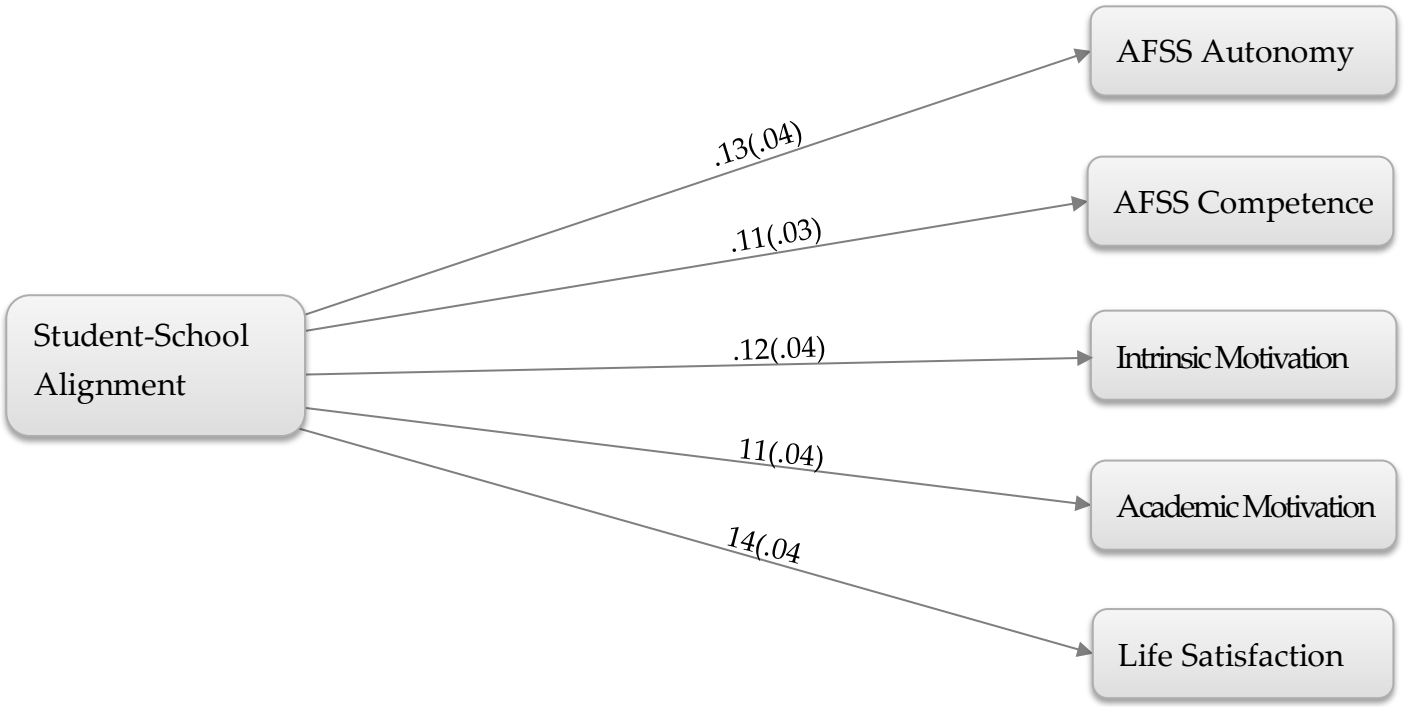

Figure 4.6. Significant total indirect effects in path model

Based on the results reported in Table 4.7 and depicted in Figure 4.5, results indicated multiple direct effects between student-school alignment, students' perceptions of school support, and student engagement. In general, the effects observed fell into the small to medium range. Turning first to the direct effects within the model, student-school alignment was found to have significant positive direct effects on all three measures of perceived school support (i.e., support for autonomy, support for learning, and social support). These results indicate that boys who were deemed to be well-aligned in terms of their socialisation preferences to the socialisation styles of their schools also reported perceiving a stronger sense of support within their schools. This finding aligns with the propositions put in Chapter 2 of this thesis.

Significant positive direct effects were also observed between the three perceived support variables and student engagement. Autonomy support was the most robust correlate of engagement, being positively related to all six of the engagement variables within the model. Learning support was positively correlated with four of the six engagement variables (AFSS autonomy, AFSS competence, intrinsic motivation, and life satisfaction). Surprisingly, learning support was not significantly correlated with the two more achievement-oriented of the engagement variables (i.e., outcome expectancies and academic motivation). This result is surprising primarily because both of the latter measures were correlated with perceived support for autonomy. Perceived social support correlated with two of the six engagement variables: outcome expectancies and life satisfaction. Despite the somewhat unexpected results obtained for perceived support for learning, collectively, these results indicate that students' perceptions of support for learning were robustly related to their reported engagement levels.

Turning now to the indirect effects within the model (see Table 4.7), students' perceptions of school support also significantly mediated the relationships between student-school alignment and student engagement (reported previously in Section 4.3). Based on the indirect effects (IE) reported in the table, the relationship between student-school alignment and engagement was mediated by students' perceptions of school supports for all but one of the engagement variables (outcome expectancies). This result suggests that the total effects reported for student-school alignment on engagement (Section 4.3) are largely explained by the effects of student-school alignment on students' perceptions of school support. Specifically, the indirect component of the total effects of student-school alignment on each of the engagement variables were as follows: 93% for AFSS autonomy; 79% for AFSS competence; 52% for intrinsic motivation; 29% for outcome expectancies; 55% for academic motivation; and 84% for life satisfaction. Thus, the contribution of mediated effects to the total effects of student-school alignment was particularly substantial for the engagement variables AFSS autonomy, AFSS competence, and life satisfaction.

Finally, to assess the relative importance of the three measures of perceived support incorporated in the model, the contributions made by each to the significant overall indirect (i.e., mediated) effects on each engagement measure were computed. Results of these analyses are presented in Table 4.8. Based on these percentages, overall, students' perceptions of support autonomy was clearly the strongest mediator in the set, accounting for the highest % contribution amongst the three mediators for all bar one of the engagement variables (life satisfaction). Support for learning also contributed robustly, not as substantially, to the mediation effects for all five of the engagement variables. The weakest mediator in the set was social support,

which contributed minimally to the mediation of school-student alignment effects on AFSS autonomy, AFSS competency and intrinsic motivation. Social support did, however, make a substantial contribution to mediation for academic motivation and life satisfaction.

Table 4.8. Percentage contributions to significant total indirect effects

Variables	Autonomy Support	Learning Support	Social Support
AFSS Autonomy	59.35%	28.04%	12.61%
AFSS Competency	52.48%	36.61%	10.92%
Intrinsic motivation	63.96%	32.13%	3.9%
Academic Motivation	56.36%	24.12%	19.52%
Life Satisfaction	28.43%	36.18%	35.39%

Chapter 5. Discussion

The primary aim of the present study was to investigate relationships between students' engagement levels and the degree of alignment (i.e., aligned versus not aligned) between their socialisation preferences (i.e., preferences for demandingness and responsiveness) and the socialisation styles of their schools (i.e., relative focus on demandingness and responsiveness in student-school interactions). A secondary aim was to determine whether any relationships observed could be attributed to students' perceptions of the quality and quantity of their school's autonomy, learning, and social supports.

This chapter first summarises the results of the study, addressing each of the five specific research questions posed in Chapter 2. Practical recommendations are then made on the basis of the findings for parents, school personnel, and education policy-makers. These recommendations are based both upon the candidate's own professional experience and other findings drawn from the scholarly research literature. Possible directions that may be pursued in future studies are then discussed. The chapter concludes with a summary of the contributions made by the present study, and comments on applying the findings within the WA school system.

5.1. Summary of results

The results presented to address Research Question 1 (*Can schools be classified into distinct socialisation types?*) indicated that, based on parents' ratings of schools' levels of demandingness and responsiveness, the five schools that participated in the study could be differentiated into four broad socialisation

styles. These styles align well with the school socialisation types identified in previous studies (e.g., Pellerin, 2005). As noted previously, *authoritarian* schools are characterised by high levels of demandingness and low levels of responsiveness; *authoritative* schools are characterised by high levels of both demandingness and responsiveness; *indifferent* schools are characterised by low levels of both demandingness and responsiveness; *permissive* schools are those with low levels of demandingness and high levels of responsiveness.

In general, the schools in this study exemplified these attributes, with the exception of the private girl's school that was classified as *permissive*. Parents did rate this school as more responsive than demanding, and it was lower in terms of demandingness than the two other non-government schools in the sample. Demandingness ratings for the permissive school were, however, still higher than those given for the two *indifferent* (public co-educational) schools. This is likely to reflect the high socioeconomic background and nature of the school – few private schools will report lower levels of demandingness than public schools, in WA or elsewhere (e.g., Fullarton, 2002).

The school classified in this study as permissive, therefore, met criteria for the classification in one respect (i.e., was deemed to be more responsive than demanding), but cannot be considered an 'exemplar' of this socialisation type. As no other schools were available at the time of implementation, it was not possible for the researcher to engage a school that represented a more extreme case of this socialisation type. As such, the results of this study need to be replicated using a broader sample of schools before definitive conclusions are reached, particularly with respect to the relationships between engagement and alignment for girls.

Results obtained in relation to Research Question 2 (*Can students be clustered into distinct groups based on their preferences for contextual demandingness and responsiveness?*) supported the notion that the contextual preferences of students, like the socialisation styles of parents (Baumrind, 1967, 1971, 1987, 1991), the instructional styles of teachers (Wentzel, 1997, 1998, 1999), and the socialisation styles of schools (Marchant et al., 2004; Gill et al, 2003; Pellerin, 2005), can be classified in terms of socialisation constructs. Results of this study indicated four clusters of students based on profiles of relative preference for demandingness versus responsiveness, which align broadly with school socialisation styles:

- *Authoritarian* students reported a preference for demandingness over responsiveness in their school contexts;
- *Authoritative* students reported a preference for contexts that were high in *both* demandingness *and* responsiveness;
- *Permissive* students reported a strong preference for responsiveness over demandingness; and
- *Indifferent* students reported a preference for contexts that were low in *both* demandingness *and* responsiveness.

Results presented to address Research Question 3 (*Is there a relationship between boys' engagement levels and their alignment with their school's socialisation type?*) indicated that engagement levels were correlated with the degree of alignment between students' socialisation preferences and school socialisation styles. The relationship between student-school alignment and engagement was far more evident for boys than for girls. Results indicated that 'aligned' boys (i.e., those whose socialisation preferences matched their school's socialisation type) reported significantly higher levels of academic

motivation, intrinsic motivation, mastery approach goals, outcome expectancies, and life satisfaction, than 'non-aligned' boys (i.e., those whose socialisation preferences were not matched with their school's socialisation style). There was also a trend toward higher levels of psychological needs fulfilment (in terms of autonomy and competency) for aligned versus non-aligned boys, though the latter differences only approached significance at the .05 level (p = .08). With a larger sample of schools that represent more 'extreme' cases of different socialisation types, stronger effects for student-school alignment would be expected.

These results suggest that, when boys' preferences are aligned well with school attributes, they will exhibit higher levels of global motivation to engage with school work. They will also find academic tasks more intrinsically interesting, and approach their academic work with a view to increasing their knowledge and enhancing their skill levels, rather than outperforming their fellow students. These boys will also have higher expectations of their future academic performance and career prospects, feel more satisfied in their lives in general, and, to a lesser extent, feel that their schools are fulfilling their psychological needs well. In short, boys whose socialisation preferences match the socialisation styles of their schools will be more positively engaged with school than those whose preferences are not well met. Based on findings reported by other researchers, this will lead in the longer term to better academic performance, as well as better outcomes in other key schooling domains (McClenney, Marti & Adkins, 2015).

In contrast to the results obtained for boys, results for Research Question 4 (*Is there a relationship between girls' engagement levels and their alignment with their school's socialisation type?*) indicated few relationships between girls'

engagement levels and the alignment between their socialisation preferences and school socialisation types. Only two effects of alignment on engagement were notable for girls: a near-significant positive relationship between alignment *autonomy* need fulfilment, and a significant positive relationship between alignment and *relatedness* need fulfilment. These results indicate that girls whose preferences were aligned with their schooling contexts were more likely to report that their schools met their needs to demonstrate autonomy and to engage in positive social interactions than girls whose preferences were not well met by their schools. No other significant differences based on alignment were obtained, on any of the engagement indicators, in the female sample.

The proposition that the alignment of students' preferences with school socialisation styles should be considered in school choice decisions was predicated on the notion of student engagement as a core indicator of school effectiveness. It appears from the present results that this proposition may be particularly relevant for boys. There are several possible factors that might account for the differential pattern of results observed for male and female students. First, it is possible that this result reflects commonly observed differences in the emotional and social maturity of adolescent males and females. Menninger (1999) defined *emotional maturity* as the ability to deal constructively with reality, while Raj (1996) defined *social maturity* as the level of social skill and awareness that an individual has achieved relative to particular norms. Various studies have shown that, in general, boys lag behind girls in terms of their social and emotional development. For example, in a recent study by Singh, Pant and Valentina (2013), it was found that senior school girls were significantly more developed than boys in terms of their social adequacy. It is possible that this higher level of maturity would make

girls more adaptable to diverse schooling contexts than boys. This hypothesis is clearly a tentative one, however, and would need to be investigated empirically in a future study to be deemed plausible.

It is also possible that the differential pattern of results for males and females in this study arose because differences in school socialisation styles would be more salient to boys than to girls. Numerous previous studies have suggested that, overall, schools are somewhat more 'interventionist' with boys, and that teachers engage in significantly more direct communications with boys than with girls. This may reflect stereotypes frequently held by teachers about overall gender differences (see Sadker, 1999; Sadker & Sadker, 1986; Sadker & Sadker, 1994). Boys are often regarded by teachers as louder and more self-interested, more performance-oriented, more aggressive, and more directly competitive with their peers, than girls. Girls, on the other hand, are generally perceived being more relationally focused, quieter, less aggressive, and more acquiescent than boys. Teachers (and schools) who hold expectations of this kind are much more likely to maintain high levels of engagement (both positive and negative) with boys in an effort to 'head off' future disruptive behaviours. As a result, the socialisation style of the school will generally be more salient to boys than girls, because boys will more often interact with school personnel in ways that will highlight this style.

There is some evidence which provides indirect support for this hypothesis. For example, Sadker and Sadker (1994) called attention to various inequities in teachers' verbal interaction patterns with males and females in classrooms, based on interview data from students and teachers. They reported in particular that both the quality and quantity of teachers' interactions with girls was lower than for boys. For example, girls were found to receive fewer

initiated contacts, and less constructive feedback and encouragement, from teachers than did boys across the primary, secondary, and tertiary levels. Findings such as these lend support to the notion that boys may become more aware of the socialisation styles of their schools than girls, simply because they have a higher level of interaction with school personnel than do girls.

Another possible reason for the differential pattern of results obtained in this study concerns the nature of the sample itself. As noted, the one school that did not strictly meet the criteria for its classification was the single-gender girl's school, which was classed as permissive despite relatively high ratings of demandingness from parents (in comparison to the two public schools – demandingness ratings for the permissive schools were lower than for the two other non-government schools). The fact that the schools involved in the study were not extreme cases of different school types is likely to have attenuated the effects observed. Given that the female sample would have been more affected by this than the male sample, it is possible that the low number of significant results obtained for girls reflect differences in the adequacy of the female study sample. Again, this warrants a further investigation with a broader sample of schools to determine whether the differential results are robust.

Nothwithstanding differences in the number of significant relationships observed for males and females, positive effects for alignment were observed in both samples. For boys, these effects spanned a broad range of engagement outcomes, including academic motivation, intrinsic motivation, mastery goal orientations, outcome expectancies, life satisfaction, and autonomy and competency needs fulfilment (though the latter effects only approached significance at the .05 level, there was clearly a trend toward such effects

within the data). For girls, the positive effects of alignment were confined to the facets of autonomy and relatedness within the needs fulfilment construct. Overall, therefore, the results do suggest that aligning students' preferences with school socialisation types is likely to produce positive effects on various aspects of student engagement. No negative effects of alignment were observed in either of the samples.

The results of this study suggest that positive psychological, affective, academic and behavioural engagement may be important prerequisites to positive schooling outcomes. It is somewhat surprising that relationships between student-school socialisation alignment and perceptions of schooling suitability have attracted such little research interest prior to this point, given in particular that notions of aligning teaching and learning styles have been part of the education literature for some time. Various theoretical and opinion papers have addressed the question of alignment previously.

Martin (2003), for example, suggested that alignment boosts academic motivation and engagement for some students, and particularly, those with a high need for responsive supports, while alignment on organisational structure and discipline (demandingness) boosts achievement outcomes for those with a preference for externally demanding contexts. Similarly, Grow (1991) expanded on Carl Rogers' earlier narrative that a match of teaching and learning styles in classrooms correlated positively with student achievement. Grow's Theory of Self-Directed Learning produced a matrix of different teaching style characteristics that locate on a continuum of matched to mismatched with the characteristics of different student styles. Notions of mismatches between the home and school environments have been studied previously also. For example, Laosa (1984) linked academic

underachievement with discontinuity or mismatch between students' home and school environments, while Epstein (1983) reported that externally-oriented students (those who preferred demanding contexts) who were enrolled in high-participation (responsive) schools and who had high-participation families were often misaligned with both of these environments, scoring low on measures of independence and attitudes toward schooling. Given these theoretical propositions, and indirect empirical evidence, it is surprising that relationships between schooling outcomes and student-school socialisation style alignment have not attracted more attention previously.

The results obtained for Research Question 5 (*Do perceptions of school supports mediate the links between student-school alignment and engagement?*) provided important further information for interpreting the effects of student-school alignment on student engagement measures for boys. Based on the outcomes of the path analysis conducted, students' perceptions of school support significantly mediated the relationships between student-school alignment and student engagement. In fact, the indirect effects in the path model indicated that all but one of the relationships between student-school alignment and engagement was mediated by students' perceptions of school supports (the one exception being the relationship between alignment and the engagement indicator *outcome expectancies*). This result indicated that the total effects reported for student-school alignment on engagement in boys can largely be explained by the effects of student-school alignment on boys' perceptions of school support.

The follow-up analyses performed in the path model indicated further that students' perceptions of autonomy support was the strongest mediator in the set, accounting for the highest % contribution amongst the three mediators,

for all bar one of the engagement variables (life satisfaction). Learning support also contributed robustly to mediation, though not as substantially, for all of the engagement variables in which a significant overall mediation effect was observed. The weakest mediator amongst the school support variables was social support, which contributed substantially to mediation only for academic motivation and life satisfaction.

The results of the path analysis have two main implications. First, based on these results, a major reason for the superior engagement levels reported by boys whose socialisation preferences aligned with their school socialisation styles is that these boys perceive their schools to provide more support for their autonomy, learning, and social engagement. As noted previously, it was beyond the scope of this study to assess the extent to which these perceptions reflect *actual* differences in school support. This finding, nonetheless, suggests that boys who are well suited to their schooling contexts will judge those contexts more favourably in terms of support than others. Second, and perhaps most interestingly from a practical standpoint, the results suggest that schools may be in a position to alter the negative effects of student 'misalignment' on engagement by providing additional support to such students. Based on the present study, such support should focus on the areas of student autonomy, student learning, and social engagement.

5.2. Recommendations for practice

This section draws upon the candidate's own professional experience, as well as findings from other research literature, to provide recommendations for parents, school personnel, and education policy-makers. The recommendations proffered focus primarily on issues that may confront

students in the primary to secondary transition period. As mooted earlier, students' perceptions of the quality of school life have been reported to decline significantly during this period (e.g., Diemert, 1992). This decline no doubt reflects the influence of myriad factors. For example, empirical research has indicated that many students report secondary school contexts as larger, more homogeneous, more structured and more impersonal than primary settings (Schumacher, 1998). To cope academically and socially with these cultural differences, students must make significant adjustments rapidly, which makes the transition highly stressful (e.g., Speering & Rennie, 1996; Hatton, 1995; Hargreaves, Earl & Ryan, 1996). As such, this juncture in a student's life will often be the most critical in determining their long-term engagement with school.

5.2.1. Recommendations for parents

Research suggests that parents find the process of choosing schools for their children daunting and anxiety-provoking. In a four-year Australian study which included 63 in-depth interviews with parents; 1,350 written surveys of parents; and Australian census data from 1976 to 2001, by Campbell, Proctor and Sherington (2009) reported that middle-class parents were united by a sense of anxiety about school choice, and the need to protect their children from the 'wrong' school. In a related correspondence on the book, Campbell[4] noted that "Previously very few urban parents looked at the schools in their city and imagined they constituted a market from which they could freely choose… Today, anxiety about a more dangerous world means that thinking about school choice can begin as soon as the child is born". It is clear that

[4] Campbell, C. (2009. Parents anxious over school choice. *Opinion paper in The Drum,* ABC Networks, 3 Feb 2009. Available online: http://www.abc.net.au/news/2009-02-03/parents-anxious-over-school-choice/282874.

against this backdrop, research into how parents should make school choice decisions is of paramount importance within Australia.

Recommendation 1: When choosing a secondary school, ensure that all possible options are identified.

The stress invoked by school choice decisions can lead some parents to opt for a 'default' school based on media influences. Marketisation and publicity practices vary significantly across schools, and the degree of effort invested in maintaining student enrolments (as well as the efficacy of these efforts) will often reflect factors such as geography, and the ideological views of the school principal (e.g., Morgan & Blackmore, 2007). These factors may have little to do with the quality of the education experiences offered by the school. Smaller, more distinctive schools (i.e., those with unique attributes) which do not advertise as broadly, will often afford students benefits that larger schools cannot. Thus, parents are encouraged to make effort to identify these more 'boutique' alternatives, rather than choosing schools wholly on the basis of presence within the popular press.

Recommendation 2. Consider your children's own socialisation preferences in evaluating prospective schools.

As noted previously, parents will often consider enrolling their children in given secondary schools based on factors such as academic press. International research conducted over the past 20 years suggests that the most common motive for parents making choices to attend non-government schools in preference to public schools is academic outcomes and perceived teaching quality (Moe, 1995; Witte, 2000). Non-government schools are

generally seen to produce higher graduation and attendance rates, higher parental satisfaction, and higher proportions of university entries, than public schools (Alt & Peter, 2003). As a result, the perception of many parents is that non-government schools provide a superior overall education than public schools.

The results of the present study, however, underscore the futility of maintaining 'one size fits all' approaches when engaging secondary level students. Students cannot be regarded as a homogeneous cohort – each will have his or her own unique psychological fulfilment needs and socialisation preferences, which will, in turn, interact with schooling contexts in unique ways. Schools also possess specific cultures, and thus, like students, cannot be considered homogenous. Based on the results of this study, different types of school (e.g., private, public) may exhibit specific socialisation styles. In the small sample of schools that participated in this study, the results indicated that the single-gender male private school was authoritative in its culture (i.e., high in both demandingness and responsiveness); the single-gender female private school tended toward permissiveness (high responsiveness proportional to demandingness); the independent co-educational college was authoritarian (high in demandingness and low in responsiveness); and the two public schools were relatively indifferent (low in both demandingness and responsiveness) in their socialisation styles.

The present study supports the notion that decisions about school suitability should be made by considering the degree of alignment between students' socialisation preferences, and the socialisation styles of prospective schools. Thus, in choosing a school for their children, parents should first consider their socialisation preferences. This could be done in a variety of ways. An

obvious first step is to speak with children directly about their preferences, drawing upon some of the concepts reflected in the surveys used here. Parents could also observe the decisions that their children make when given a choice of different kinds of tasks and contexts. Another valuable source of information can come from parents reflecting on their own interactions with the child – parents themselves will have a particular socialisation style that falls into one of the four clusters identified in this study. Thus, reflecting upon how their children have responded to this will provide an excellent starting point for assessments of children's socialisation preferences.

Recommendation 3. Consult diverse sources of information about prospective schools.

As noted in Chapter 1, parents presently have little immediate access to the kinds of information that would be needed to assess the socialisation styles of prospective schools. Most of the information available in the public domain focuses on various facets and measures of academic performance. Thus, to gain a broader perspective on each school, parents need to ask around, access neighbourhood information, and read reviews and commentaries online for further information. In addition to using sources such as social networks and other published information, parents should speak to the principal of each prospective school to gain a sense of the school's priorities and general ethos.

Whilst informal, these approaches will often yield honest advice and feedback from other parents, which can prove invaluable in assessing whether a given school is likely to align with a given child's preferences. A relatively recent study suggests that this may already be obvious to many parents. Goldring et al. (2008) suggested that the formal information and

communication channels promoting public schools now have minimal influence over the choices that parents actually make. They highlighted instead the increasing potency of informal social networks in influencing school choice. Goldring et al. proposed that, despite the prevailing assumption that parents are being increasingly 'pushed' out of their public schools because of dissatisfaction, increased demands for non-government schools was likely to reflect a 'pulling' of parents toward private and independent schools, based on the dedicated efforts of the latter schools to engage with the broader community.

5.2.2. Recommendations for school personnel

Many families confront genuine limitations in terms of their choice of destination schools, based on factors such as geography (e.g., those in rural locations will have fewer options than those based in the city) and finances. In such contexts, it is almost inevitable that schools will have the responsibility of educating students who do not 'fit' the school's socialisation style. Results of the present study suggest that students in this category – and particularly boys - may be 'at risk' of experiencing lower levels of disengagement than others. The path analysis outcomes presented in this thesis suggest that in such situations, the relationship between alignment and engagement can be moderated through efforts to enhance the autonomy, learning, and social supports that are made available to students. These may be particularly important during school transition periods, when students can be highly vulnerable to disengagement.

The significance of students' perceptions of the adequacy of school support mechanisms was emphasised in Connell and Wellborn's (1991) model of self-systems processes. In this model, students' specific needs for competence,

relatedness, and autonomy are addressed when teachers provide structure, involvement, and autonomy support. Student adjustment was found to be influenced by each of these dimensions. Teacher involvement (either genuine or perceived) was also shown to be foundational to a supportive social environment (Skinner & Belmont, 1993; Soenens & Vansteenkiste, 2005; Zimmer-Gembeck, Chipauer, Hanisch, Creed, & McGregor, 2006).

Teacher involvement with students at the beginning of the school year has been found to thwart subsequent declines to students' social–affective adjustment across the remainder of the year (Skinner & Belmont, 1993). A focus on the affective nature of teacher involvement such as showing care and respect (Battistich, Solomon, Kim, Watson & Schaps, 1995; Wentzel, 2003) and dedication of resources to such supports (Roeser, Eccles & Sameroff, 2000; Suldo, Freidrich, White, Farmer, Minch & Michalowski, 2009), has dominated empirical studies of this dimension. Results such as these indicate clearly the influence that school support can have on students' outcomes in the affective domain.

The results of the present study confirmed this broad position, indicating that relationships between student-school alignment and engagement were mediated significantly by students' perceptions of school support (i.e., autonomy support, learning support, and social support). Four recommendations are made for schools based on the study findings.

Recommendation 1. Provide extra support for student autonomy

Of the three school support variables incorporated in the path model (i.e., autonomy support, learning support, and social support), support for

autonomy was clearly the strongest mediator of relationships between student-school alignment and engagement levels. The significant mediation effect for autonomy support observed in this study is consistent with findings from several previous studies (e.g., Assor, Kaplan, Kanat-Maymon, & Roth, 2005; Reeve, 1998, 2002; Flink, Boggiano, & Barrett, 1990), which have indicated negative effects on students' self-determined motivation when teachers exhibit various forms of controlling behaviour. This can include giving rigid directions or orders, supervising and monitoring too closely, and not giving students the opportunity to propose choices and opinions that differ from those expressed by an adult. Such approaches are clearly opposed to the positive effects of practices that support the autonomy of students, which include strategies such as letting students choose from various alternatives, listening to them, and asking them for their points of view.

Support for student autonomy has also been found more directly to affect students' engagement with school. In a recent study of relationships between perceptions of support and schooling outcomes, Hafen, Allen, Mikami, Gregory, Hamre and Pianta (2012) studied whether high school students' perceptions of autonomy, teacher connection, and academic competence predicted changes in student engagement from the start to the end of a course. This was a large-scale evaluation, involving 578 high school students from 34 classrooms. Results indicated that, for students who perceived their classrooms as encouraging their autonomy within the first few weeks of term, school engagement increased throughout the course, while for students in other classrooms, engagement declined over the same period. This finding clearly supports the view that support for autonomy can have a positive impact on students' engagement levels.

Specific recommendations for teachers to enhance students' sense of autonomy, drawn from previous research literature, are presented below:

- ***Have positive expectations about students' abilities to achieve their goals.*** Research has shown the benefits that accrue to students when parents and schools have positive expectations of their abilities (see Saffigna, Church & Tayler, 2011). This has been shown to be particularly important for students deemed to be 'at risk' in given school contexts (Hinnant, O'Brien & Ghazarian, 2009). High expectations have been shown to enhance the resilience of children and adolescents, as well as having positive effects on academic performance and motivation (Gizir & Aydin, 2009; Ahmed, Minnaert, Van Der, & Kuyper, 2008). High expectations in students' ability to achieve goals have also been shown to have a positive effect on students' self- esteem and outcome expectancies (Rubie-Davies, 2006). Wentzel (2002) similarly found that high expectations predicted positive academic performance, while negative feedback was a consistent predictor of poor performance and social misbehaviour. Based on these results, positive expectations form a key component of autonomy support.

- ***Adopt a collaborative approach to decision-making.*** To increase autonomy support, it is important also to involve students, where possible, in school decision-making. For example, in situations that require disciplinary action, it is important that schools attempt to see the problem from the child's perspective, and discuss options for dealing with it with students. Schools should also demonstrate openness in handling questions and suggestions from students about

aspects of the school structure or processes, rather than seeing these as a nuisance or an intrusion. Numerous studies have supported the notion of involving students in this way (see Stefanou, Preencevich, DiCintio & Turner, 2004). In one such study, Villa, Thousand and Nevin (2010) reported that when students collaborate with teachers, this encouraged them to take responsibility for what happens in their school. Koh and Frick (2010) also pointed to the value in honouring students' opinions in decision-making, as well as and respecting students' feelings and providing rationales for expected behaviour.

- ***Make the most of students' intrinsic interests.*** In the research literature, there is general consensus that increasing intrinsic motivation (i.e., students' interest in learning for its own sake) will have beneficial effects. To achieve this, schools should provide students with choices and options where possible. The results of the present study suggest that this level of flexibility may be particularly important for students who are not well-aligned to the socialisation styles of their schools. As an example, within the parameters that are fixed by the school curriculum, students could be allowed to choose specific topics to study, and also, how they study these (e.g., under groupwork or individual conditions) (see Koh & Frick, 2010). Other practices that promote increases in intrinsic motivation include allowing students to explore and pursue their interests, building upon their backgrounds and prior experiences in constructing tasks, and reducing external rewards that are geared toward controlling behaviour (Lepper & Henderlong, 2000; Pintrich & Schunk, 2002).

Recommendation 2 - Provide ample support for student learning.

Previous research has demonstrated that the provision of timely support for learning is a critical determinant of students' engagement levels. For example, strong teacher support for learning has been found consistently to enhance school satisfaction levels (i.e., cognitive appraisals of satisfaction with school) amongst middle school students (George & Alexander, 1993; Huebner & McCullough, 2001; Wentzel, 2002; DeSantis King, Huebner, Suldo & Valois, 2006). Students who are struggling with given aspects of a curriculum are particularly vulnerable to disaffection. Early intervention in these cases is essential to 'break the cycle' of negativity. Specific recommendations for achieving this goal are as follows:

- ***Use formative assessment to monitor student learning closely.*** In order to provide timely learning support, it is necessary for schools to provide ongoing assessments of students' learning progress. Formative assessment includes a range of methods used by schools to assess student learning outcomes throughout a learning unit. This is generally used by teachers to determine whether teaching and learning activities need to be modified to meet the needs of individual learners. A major review published by the Organisation for Economic Co-operation and Development (OECD: 2005) studied the use of formative assessment in eight educational systems: Australia (Queensland), Canada, Denmark, England, Finland, Italy, New Zealand and Scotland. In this study, the OECD reported that formative assessment was highly effective in increasing students' academic outcomes and improving students' ability to learn. This report announced also that the achievement gains associated with formative assessment were

among the 'largest ever reported for educational interventions'. Results such as these underscore the critical role that formative assessment can play in early interventions for students who are not coping with aspects of their academic work.

- ***Use a range of pedagogical approaches.*** While many teachers will use a range of approaches in their classrooms, most will tend to rely heavily upon a much smaller subset of these the majority of the time. The results of the present study suggest, albeit indirectly, that different teaching styles may be more or less suited to individual students. In light of this finding, providing support for the learning of all students will necessarily involve the use of mixed pedagogical strategies. This notion is well-aligned with notions of adaptive teaching (Corno & Snow, 1986; Corno, 1995). Randi and Corno (2005) differentiated between adaptations made at the the 'macro' and 'micro' levels. Adaptations at the 'macro' level involve planning learning programmes for different groups of similar students based on assessments of characteristics such as ability or sociocultural background factors (which would include preferences for socialisation style). Adaptations at the 'micro' level include those made by teachers during instruction, in response to specific students. Randi and Corno (2005) provide an excellent summary of the key features of both types of adaptations, along with recommendations for schools and teachers who wish to apply these in their own contexts.

- ***Establish supportive school and classroom goal structures.*** In previous chapters, the notion of students' goal orientations has been defined and elaborated. Contributors to the area of goal theory often

talk also about the goal structures of schools. These refer to students' beliefs about the goals that are emphasised by their schools in general (see Meece, Anderman & Anderman, 2005). Again schools are typically depicted as having one of two main types of goal structure. In schools with a *mastery* goal structure, students perceive that the emphasis in evaluation is on their own progress (i.e., the extent to which they master new material). In schools with a *performance* goal structure, students perceive that school evaluations generally emphasise judgements of relative ability between students. Numerous studies have suggested that adopting mastery goal structures within schools can have positive effects on student outcomes. For example, in a study by Barkoukis, Koidou, Tsorbatzoudis, and Grouios (2012), the relative impact of school and classroom goal structures on students' affective responses to physical education was studied in 368 high school students. Results indicated that mastery goal structures predicted students' enjoyment of school, while performance goal structures predicted levels of boredom. Shumow and Schmidt (2013, p.1) recommend that teachers and schools aiming to create a mastery goal structure should:

- Model a commitment to learning and understanding;
- Focus attention on students' efforts and strategy use, rather than on their abilities or intelligence;
- Teach adaptive learning strategies;
- Encourage student involvement and a sense of personal responsibility;
- De-emphasise the negative consequence of making errors;
- Decrease emphasis on comparisons between students; and
- Foster the establishment of realistic, but challenging goals.

- ***Involve peers in the learning process.*** It has long been recognised that peer learning strategies (including collaborative and cooperative learning) can be used to enhance the learning of students who are at-risk. All peer learning approaches involve having learners work with others complete some designated tasks (e.g., solving a problem; preparing a presentation; creating a new product). Peer learning methods have been reported to have an array of social, psychological and academic benefits (Laal & Ghodsi, 2012). In small-group collaboration, students engage in a range of learning behaviours that predict and influence student learning outcomes, such as exchanging explanations and applying help received (Webb, 2008). In cases where it is difficult for teachers to provide individualised instruction to specific students, peer collaboration methods can provide various types of learning support, such as immediate feedback for responses, one-to-one explanations, and timely confrontation of misconceptions.

- ***Involve parents in the learning process.*** Involving parents in school processes can also help to 'bridge the gap' and provide further learning support for students who are not well-aligned with their school's socialisation culture. Various studies have shown the benefits of involving having parents involved in school education (e.g., Muhammad, Rafiq, Fatima, Sohail, Saleem & Khan, 2013). In a meta-analysis of 51 such studies, Jeynes (2004/5; 2012) reported that the academic achievement of children whose parents were highly involved in their education was 0.3 standard deviations above that of students whose parents were less involved. Epstein, Coates, Salinas, Sanders and Simon (1997) identified six main ways in which schools

could involve parents in the education of their children, all of which were found by Jeynes (2004/5; 2012) to be associated significantly with student learning:

- *Parenting*: Help all families establish home environments to support children as students.
- *Communicating*: Design effective forms of school-to-home and home-to-school communications about school programs and children's progress.
- *Volunteering*: Recruit and organize parent help and support.
- *Learning at home*: Provide information and ideas to families about how to help students at home with homework and other curriculum-related activities, decisions, and planning.
- *Decision-making*: Include parents in school decisions, developing parent leaders and representatives.
- *Collaborating with community*: Identify and integrate resources and services from the community to strengthen school programs, family practices, and student learning and development.

Recommendation 3 - Provide additional support for social engagement.

Of the three mediating variables for the relationship between student-school alignment and engagement, social support was found to be the weakest. Nonetheless, social support did contribute significantly to mediating this relationship for the engagement variables *academic motivation* and *life satisfaction*, both of which have been found significantly to predict both short- and long-term student outcomes in various domains (see Chapter 2). The

recommendations in this section draw heavily on the literature that focuses on notion of students' sense of belonging in schools. Goodenow (1993) defined students' sense of belonging as the sense of "psychological membership in the school or classroom, that is, the extent to which students feel personally accepted, respected, included, and supported by others in the school environment" (p. 80). Numerous research studies have highlighted links between belongingness and students' outcomes in the learning and affective domains (e.g., Monahan, Oesterle & Hawkins, 2010).

Reviews of the literature on enhancing students' sense of belonging within schools have highlighted a number of core features of schools in which students report high levels of belonging (e.g., Anderman, 2011). Based on these sources, three recommendations for increasing school social support for students are proposed here.

- ***Develop positive teacher-student relationships.*** In a review of empirical work published on factors that support a sense of belonging in schools, Anderman (2011) emphasised the importance of the overall interpersonal and affective tone of classes. Anderman proposed that teachers should communicate a sense of warmth and care to students in their personal interactions, balancing a focus on students' learning with a climate of open and supportive interpersonal relationships in class. The links between teachers' interpersonal behaviours and students' sense of belonging have been confirmed in a number of empirical studies with students at different levels of schooling (see Juvonen, 2006). For example, Marchant et al. (2001) found that students' perceptions of supportive relationships within their middle-schooling learning contexts and their home environments were critical

to academic success. Marchant et al. found that a balanced provision of warm, supportive and structured environments in the family, in the classroom, and at school in general each related to schooling success.

- ***Encourage and facilitate positive peer-peer relationships.*** Anderman (2011) also highlighted the critical role that school personnel play in setting the tone for peer-to-peer relationships within school. In particular, teachers set an example for students through their own emphasis on prosocial and cooperative attitudes, active participation and mutual respect among students. These propositions have been supported by empirical studies. For example, in the Child Development Project (CDP), Battistich et al. (1995) found that cooperative learning activities, emphasising interpersonal helping and prosocial behavior, and promoting non-exclusionary attitudes in students were all key elements of enhancing a sense of belonging through positive peer-to-peer interactions.

- ***Encourage high levels of student participation in school.*** Anderman (2011) further proposed that students' sense of belonging can be enhanced by encouraging students to participate actively in school life. This included engaging in extra-curricular activities, as well as making decisions and helping to develop rules for behaviour, and having choices in terms of academic work. As noted above, these elements are likely also to increase students' perceptions of the support provided by their schools for autonomy. Their influence over high levels of participation is likely to result from the increased ownership that students feel when they believe that their views and preferences are respected by school personnel.

Recommendation 4. Prepare students for school transition periods.

Various researchers have highlighted the critical importance of managing transitions in students' long-term engagement and learning outcomes (e.g., Hanewald, 2013). Despite this, historically, schools have not managed transition periods well. Wallis and Barrett (1998) studied the psychological health of year seven and eight students at transition, and found that 25% of students declined in psychological health following the move to secondary schooling. Figures such as these are alarming, given the importance of a smooth primary to secondary transition in maintaining a positive education trajectory during these critical developmental years.

Students' perceptions of the quality of school life have been found to decline as they progress from primary to secondary schooling (Diemert, 1992; Schumacher, 1998). Prior research has shown that between 40% and 60% of students become increasingly disengaged from their school experiences during the transition from primary to secondary school (Weldy, 1991). Students' appraisal of the quality of their school lives declines as they progress from primary to secondary school (Diemert, 1992). The middle years are riddled with able but under-motivated students who had formally shown potential in the nurturing context of primary school. Many students disengage from learning during the transition period because secondary school contexts are inherently larger, more homogeneous, more structured and more impersonal than are primary school settings (Schumacher, 1998). Although students report social factors as those most related to their transition experiences, meeting the social needs of students during this period is often a low priority of secondary school personnel, while procedural and academic imperatives tend to be a core focus. Primary to secondary

school transition is a time when mastery learning strategies and personal improvement, rather than academic ability and social comparison, should be the pedagogical focus. Evidence suggests, however, that many secondary contexts actually focus upon relative ability and encourage competition, leading to a decline in mastery-based motivational goals and academic self-efficacy (Alderman & Midgley, 1996).

The importance of positively engaging transitioning students by fulfilling their individual psychological fulfillment needs and through support of their socialisation preferences has been understated in education research. Student-school misalignment at the juncture of primary to secondary transition could disrupt student motivation for schooling, leading to less than optimal engagement and achievement outcomes. The importance of aligning student and school social engagement styles was further implied in the transition literature. Weldy (1991), for example, noted that for effective transitioning to secondary school, many students need to receive assistance prior to moving, during and after the move from primary school, so that their social, psychological and academic well-being was not compromised by the contextual change (Lord, Eccles & McCarthy, 1994; Rudolph, Lambert, Clark & Kurlakowsky, 2001).

In light of findings such as these, there is an acute need for research to offer evidence-based guidance to families and schools who wish to support students through the primary to secondary transition period. Weldy (1991) noted that for effective transitioning to secondary school, some students need additional support, requiring assistance prior to, during and after the move from primary school (Lord et al., 1994, Rudolph, Lambert, Clark & Kurlakowsky, 2001). The essential elements of a suitable transition program

include: building a sense of community, responding to the needs and concerns of individual students and providing multi-faceted approaches to engage all students (see also McDonald, 2010, for the essential components of Positive Learning Environments).

For the transition from primary to secondary school, there is a clear need for transition preparation to begin at the primary level. It is during this phase that the effects of misalignment in student-school attributes are likely to be most evident. Many transitioning students become psychologically, motivationally, academically and behaviourally disconnected from school in years eight and nine. Some 'return to the fold' later (Angus, McDonald, Ormond, Rybarczyk, Taylor, & Winterton, 2009), while others are effectively lost to formal schooling, being socialised outside of the mainstream. To moderate the potential for students' disaffection and accommodate students' heightened anxiety levels during such transition periods, preparation for secondary school transition should start early, at least 12 months prior to the transition event.

A combination of both 'starting the leaving' and 'beginning the arriving' transition programing is a constructive approach to secondary school transition planning (Mind-Matters, 2008). A fundamental first step in this process is predicting which of the prospective secondary schools on offer is most aligned with the fulfilment needs and socialisation preferences of each student. Transition programs should de-mystify the influence of internal attributes that contribute to student-school engagement and develop protocols to engage successfully with engagement culture of a chosen destination school. When choice of school is limited, transition preparation offered by primary schools could focus on building attributes in children who

might be at risk that will enable them better to cope with different schooling contexts. This could include building students' sense of resilience and adaptivity, and exposing them to a broad range of schooling experiences at the primary level.

Transition preparation programs that include visits to prospective destination schools can provide students with the resilience to cope better with potential misalignment. For example, Weldy (1991) found that students in transition reported specific concerns about assimilation into secondary school that included; unfamiliarity with protocols, parental expectations, a generalised fear about the larger school, personal safety issues, changing classes and teachers, dealing with older students, higher personal responsibility, keeping up with the materials, social immaturity and lack of basic skills. Such concerns are managed differently across secondary school settings. Many students require a tailored, individualised approach to transition planning. In regional areas it is appropriate for educators to adopt an advocacy role in this preparatory endeavour, however, in urban contexts where multiple choices of destination schools exist, parents may prefer to lead their child's transition preparation.

To better prepare both students and teachers for transition to secondary schooling, in future, transition engagement modules could be developed around the three core teacher supports identified in the current research program as mediators of student-school suitability: support for learning, support for social engagement, and support for student autonomy. Students would benefit from knowledge about expectations within each of these domains, while teachers might benefit from learning how to adjust their

instructional strategies and contextual levels of standards, care and choice to better connect with different student engagement styles.

Alternatively, several well researched programs are currently available that could be adapted for transition preparation purposes. Social and emotional skills learning programs, such as PATHS - Promoting Alternative Thinking Strategies (Greenberg, Kusche, Cook & Quamma, 1995) teaches self-awareness and relationship skills to primary school aged students. Furthermore, resiliency training programs based on the work of Martin Seligman (1998, 2002) including the Aussie Optimism Program promoted by Professor Claire Roberts (2006) of Curtin University in WA, and the PENN Resiliency Program (Reivich & Seligman, 2009) from Pennsylvania State University, are also useful resources for informing transition preparation planning.

5.2.3. Recommendations for education policy-makers

Investigating students' perceptions of their own schooling experiences provides a fresh lens through which to view the suitability of engagement with schooling evaluated on a student by school basis. The study focused on students in Year 8, because this represents a key transition point at which many students are at risk of disengagement (e.g., Eccles, 2004, Weiss & Kipnes, 2006). Explanations for such declines have generally centred around differences in instructional quality (Anderman & Maehr, 1999), students' perceptions of lower teacher support (Barber & Olsen, 2004) and other characteristics of elementary and middle schools (e.g., size) or ethnic incongruence (Benner & Graham, 2007) as well as the timing of this major life-course transition during a developmentally fragile period. A robust body of research has indicated that students at this level tend to lose interest in

school and experience reduced perceived self-competence (e.g., Seidman et al., 1994; Simmons & Blyth, 1987). Other research has indicated a wide array of consequences of such disaffection, including reduced progress in literacy and numeracy; passivity or reduced effort; underachievement; disruptive behaviour; and poor attendance or attrition (Cole, 2006).

It is clear that school engagement is both an important predictor of, and key preventative factor in, underachievement at school (Walsh & Black, 2009). Whilst factors such as social background are related to school engagement, studies have suggested that it is also impacted significantly by school-based variables such as teaching approaches (Fullarton, 2002; Murray, Mitchell, Gale, Edwards & Zyngier, 2004; Willms, 2003). In light of such findings, it is clear that the disaffection observed typically within the primary to secondary transition period should be a priority for further research and intervention.

Recommendation 1. Take a more child-centred perspective in evaluations of school effectiveness.

On the face of evidence suggesting that non-government independent school students consistently achieve higher tertiary entry scores than those attending public schools, and with student retention rates that are 14% higher in independent schools (Marks, Fleming, Long & McMillan, 2000), it is understandable that parents presume non-government schools to be somewhat superior to public schools. This is, however, a simplistic view because as previously noted, choosing the right school for any given child should be an individualised process, conducted primarily by parents, and based on myriad factors that are difficult for schools to focus on. Schools may well meet their own system-defined generic effectiveness criteria, but still be

an unsuitable choice for a proportion of their student community. Excessive focus on academic press, for example, has been reported to inhibit, rather than enhance the school performance of intrinsically motivated students (Shouse, 1996). Thus, if schools strive to meet the same set of externalised benchmarks for all students, this will likely reduce diversity in the education marketplace and further limit *real* school choice, regardless of the number of schooling options available in a particular locality.

As mooted previously, secondary school effectiveness has traditionally been conceptualised from an academic performance perspective, frequently evaluated in terms of the maintenance of *academic press*. Gill, Ashton and Algina (2004) described academic press as a focus on academic excellence, high student achievement, clear academic-objectives, homework and time devoted to achieving standards. In the 1980s, high levels of academic press were purported to be the best way to promote high levels of student achievement. In the 1990s, views became more mixed, with some researchers advocating a focus on shared values, supportive teacher-student relations and a caring atmosphere at school, and others asserting that a positive disciplinary climate were the keys to high school performance levels (Finn & Voelkl, 1993; Willms, 2003). Much of this debate focused on which of these components most strongly influenced student achievement.

Generic characteristics of effective schools (e.g., clear boundaries including high expectations; professional leadership and monitoring progress; fair practices including student rights/responsibilities; purposeful teaching; home-school partnerships; and relevant curricula including shared vision/goals with a focus on teaching and learning) are usually evaluated from the perspective of the organisation (see Rutter 1983; Sammons, Hillman

& Mortimer, 1995; Teddie, Kirby & Stringfield, 1998; Phillips, 1997). These widely adopted perspectives on school effectiveness, which focus primarily on student achievement, do not consider the individual needs of students to achieve high levels of school engagement. It is plausible to hypothesise that schools might meet their own generic effectiveness criteria as organisations, yet when perceived through *student eyes,* fail to fulfil the specific internal needs of a significant proportion of their student cohort.

Examined from this perspective, performance-oriented schools, traditionally considered *effective*, may be perceived as effective only by those students with preferences for extrinsically demanding learning environments. We propose that when only academic criteria are applied in evaluating school effectiveness, many capable, mastery-oriented students who are motivated in more intrinsic and self-determined ways, and who prefer more responsive learning contexts, may inadvertently become socially disaffected and lose their motivation to learn. This proposition is supported by the findings of earlier researchers who suggested that, in any given school, when the internal fulfilment needs and preferences of individual students are well-met by school supports, such students thrive, whilst others merely survive (Moos, 1987; Eccles, Midgley, Wigfield, Buchanan, Flanagan & MacIver, 1993, Eccles, Lord & Buchanan, 1996).

At the time of writing, the WA State (liberal conservative) and the Australian Commonwealth (democratic socialist) government positions on school choice appeared ideologically opposed, leaving the public somewhat confused about schooling options. On the Independent Public Schools initiative, education reform sceptics are *sitting on the fence* awaiting the data. A question for government is, "*What sources of data will be accessed to evaluate the*

effectiveness of the IPS initiative in WA?" Traditional between-schools comparisons that rely wholly on academic standards as an index of school effectiveness are problematic, because they rely upon an external view rather than the actual perspective of students' experience in schooling contexts. Unless tracked over time, such measures may be grossly misleading.

In judgements of the relative suitability of particular schools for individual students, *league table* style school comparisons are also potentially misleading to parents. Such tables measure the quality of school marketing programs and the composition of student intake, rather than the quality of teaching and learning. Despite this, Australia, Britain, Italy and 45 States in the US continue to publish *report cards* on schools based on overall academic standing (Hoyle & Robinson, 2003). If history is any guide, measures are those most likely to be applied in an evaluation of the effectiveness of the IPS initiative in WA, while an evaluation of the internal needs and socialisation preferences of students could again be overlooked.

While State and Commonwealth Governments press on with their school accountability and reform agendas, families continue to 'vote with their feet', seeking the relative sanctuary of what are perceived as stable non-government schools. As previously noted, pro-choice reform relies on market forces driving the survival of 'better' schools and the demise of others. Therefore, how systems define better schools will likely determine the fate of many schools. If 'best' is evaluated by a simple supply and demand equation, many distinctive schools that currently meet community needs well, will likely be overlooked because their true effectiveness cannot be adequately measured in terms of generic academic and behavioural benchmarks.

The findings from the present study underscore the need for school leaders to take a more child-centred view of school engagement as an alternate measure of schooling effectiveness, based on students' preferences for different schooling contexts. Specifically, the results of the student suggest clearly that the alignment between students and schools should be considered as a critical factor in school choice decisions, if sustained student engagement is deemed an important schooling outcome. The results suggest that this might be particularly critical in making choices for boys at the important juncture of the transition from primary to secondary school.

Profiling students' attributes and preferences could be used also to better prepare students to align their fulfilment needs and preferences with the engagement supports found in accessible schools, and to inform adjustments in teacher approaches aimed at optimising student engagement levels. Furthermore, school leaders might be encouraged to apply instrumentation of the kind used in the present study to evaluate their own efficacy in meeting the needs of different types of students.

Recommendation 2. Establish genuine choice within the WA school system.

At a policy level, the finding that students had unique and measureable socialisation preferences, and that participant schools had unique and measurable socialisation styles, provided empirical support for the maintenance of diverse community schooling options in order to provide adequately for the needs and preferences of all students. The finding that schools had measurable socialisation styles that interacted with the socialisation preferences of students to facilitate or thwart student-school

engagement highlights a need to profile the internal attributes that each child brings to secondary schooling at transition.

In the current WA education context, recent cross-border enrolment restrictions have limited choice of schooling for families. In this restrictive climate, research into links between school choice and student engagement become even more salient, because in the absence of *real* choice, public schools must demonstrate that they can adequately meet the diverse fulfilment needs and engagement preferences of each child they enroll.

Elaborating on the views put by Kathleen Knight-Abowitz and similar prior authors, it is argued here that the position taken by many opponents of school choice is predicated on the notion that *equity* means *same*. Yet, as illustrated in this thesis, school suitability hinges primarily on the *fit* of students' preferences with the social attributes of their schools. If all students are exposed rigidly to the same schooling experiences, this will necessarily produce inequity, because such experiences will suit some students better than it does others. Thus, when opponents of school choice argue for equity, in reality, this can mean *less* opportunity for some students.

Until very recently, the education landscape in WA public schooling was progressing in ways somewhat similar to that experienced in the US, a system where *open enrolment* between public schools is characterised by relaxation of school boundaries and increased choice through the establishment of diverse *Charter Schools*. Charter schools are notably public schools released from government regulation so that they can compete more effectively with non-government schools. However, in contrast to the US

experience, public schools in WA are much more constrained by bureaucracy while being increasingly pressed to improve overall student standards.

To maintain student enrolments, funding and staffing, many public schools have attempted to gain a unique market advantage by promoting themselves as *specialist* in a popular discipline, such as: the arts, information technology, sport or vocational education and training (VET). The need to diversify in order to survive is clearly acknowledged by many public school principals. Thus, at a time when the drift from public to independent schools has moderated somewhat, competition between public schools is increasing. Inequities of choice typically associated with competition *between* public and independent school systems are now emerging *within* the public school system itself.

Recently, several selective entry public schools have been established in WA. These schools market *cultural capital* in the form of specialist language, music and arts programs offering scholarship entry. Selective public schools were originally conceived to compete with high-profile non-government schools at *their own game,* and function primarily to retain high ability students within the public school system. In an effort to foster community confidence in public schooling, the WA State Government has recently embarked on a strategy of devolving the responsibility for the operation of almost half of all WA public schools as Independent Public Schools (IPS) with a view to eventually transitioning all schools to this format. IPS schools are administered by a local board of educators and community representatives, a structure operationally similar to US Charter Schools. Locally, these are termed *Distinctive* schools, and, if the rhetoric is to be believed they purport to be, "*organised in diverse ways and allocate resources to match local needs*"

(Priority 2: Department of Education Strategic Plan for WA Public Schools 2012-2015, May 2012[5]).

The *pro*-choice rhetoric around these State Government reforms will likely be more popular with IPS school communities than with school administrators of smaller but truly *distinctive* public secondary schools, many of whom are fearful of student enrolment losses, not only to non-government schools but also to select entry public schools. Without mechanisms to assist parents and school personnel make *informed* school choice decisions that are based on measures of both observable (contextual) and *difficult-to-observe* internal student characteristics, such fears in the short term may be well-founded.

Recommendation 3. Increase the quality and quantity of information available to parents.

Opponents of school choice have argued that parents are ill-equipped to make the right choice of schooling for their children. Based on the arguments and evidence presented in this thesis, this position is necessarily misinformed, because it assumes that what constitutes the *right* choice for each child is already known. Research has demonstrated that school selection effects occur at two levels (see Le & Miller, 2002, 2003): one based on observable factors (academic track record, reputation, facilities, fees, location), the other based on factors that are not readily observable (e.g., the attributes of the child, the social environment of the school). While information pertaining to the more observable factors is readily available to

[5] Retrieved on 17/06/2013 from: http://det.wa.edu.au/policies/detcms/policy-planning-and-accountability/policies-framework/strategic-documents/strategic-plan-for-wa-public-schools-2012-2015.en?oid=com.arsdigita.cms.contenttypes.FileStorageItem-id-12793162.

bureaucrats, those factors in the second category can only be assessed with validity by seeking input from students and parents. This point was made by Bast and Walberg (2004), who recommended that school choice decision-making was best placed in the hands of those closest to and most familiar with a situation. Thus, by implication, parents will often be best placed to make decisions about the school that is best suited to their children.

As argued previously, although some level of broad consensus exists on the generic characteristics of *good* schools, school effectiveness is traditionally viewed from the perspective of the organisation. Whilst this viewpoint has utility at a policy level, it does little to help parents in choosing suitable schools for their children. There is a clear practical need to support the efforts of families in choosing secondary schools that optimally engage and motivate their children. However, few quantitative measures exist to assist families choose the school that might best fulfil the needs and preferences unique to each of their children. It is in this respect that parents are at a disadvantage in making good school choices. This obstacle is, however, entirely surmountable. The global trend toward greater school choice supports the need for such measures to help guide parents in the process of choosing the right schools on the basis of reliable, comparable, clear and useful data (Finn, Manno & Vanourek, 2001).

When evaluating school effectiveness, education systems have generally been slow to consider the relevance of students' or parents' perceptions of the attributes of different schooling contexts. For example, the relatively unique attributes of individual students and those of schools are infrequently included in evaluations of school effectiveness and school choice. The problem may not necessarily reflect a lack of will on the part of teachers,

schools and researchers to engage more effectively with students; it may alternatively reflect the fact that key school personnel rarely have access to the instrumentation required to profile student and school socialisation styles. The present research program provides empirical support for the inclusion of such indicators to explore schooling suitability, particular at key transition points in the K-12 trajectory.

The need for new measures of school culture that can identify the social engagement characteristics of schools has been suggested by previous research. For example, Hattie (2009), in his book entitled "Visible Learning" reported a meta-analysis of 800 studies that investigated myriad of strategies purporting to improve student achievement in schools. His findings support the need to identify the social engagement characteristics of schools' culture in order to focus on positive student-school relations. He noted that much of what was traditionally the focus of the school improvement effort was misdirected. For example, improving the physical school environment, class sizes, tightening of school structures and working conditions that describe predominantly between-school cultural variance, had a relatively small effect on student achievement. Almost any change in schools was shown to have some effect on student achievement (e.g. the average effect size of all interventions reviewed was .40). However, the most powerful student achievement mediators were engagement features within-schools. For example, measures of classroom-climate including the provision of appropriate challenge, creating opportunities for feedback establishing sufficient trust for students to ask for help and fostering an openness that positively accommodated for error were found to be the essential elements required for learning. Hattie suggested that these factors, along with peer relations and the level of general disruption in school must be considered

through the eyes of students in order to be meaningful in evaluating the true effect of school improvement strategies on student outcomes.

Without access to relevant data, how do parents typically choose a school for their children? Bell (2009) applied Hossler and Gallagher's (1987) three phase decision-making model to explain the school choice process. This model described a *predetermination phase*, a *search phase* and a *choice phase*, that parents employ to construct their school choice sets. Bell found that one third (33%) of parents who were choosing a school for a second child, based their decisions on their prior experience with older siblings and did not consider more than one school. This effectively ended the construction of the school choice set at the predetermination stage. Goldring and Phillips (2008) described such parents as *non*-choosers. This statistic was particularly concerning because for children of *non*-chooser families, efforts designed to enhance equity in school choice are limited by personal constraints related to the difficulty of choosing (e.g., lack of information, *know-how* or assistance) or to other extrinsic factors such as transport and convenience, none of which relate directly to schooling suitability.

Bell (2009) suggested that many assumptions about how parents choose schools for their children are unfounded, and that most families make these choices with considerable deliberation. For example, in the *search* phase, parents applied one of two search procedures. The first was an open search (applied by 66% of the remaining parent sample) that began with a large set of schools (7.5 schools on average). Over time and through interaction with the education market this narrowed to a smaller set and then to a selection. The second was a closed search (applied by 33% of the remaining parent sample) which started with a few schools in mind (3.4 schools on average)

and parents spent time gathering information about those schools, sitting entry exams and arranging transport in preparation for attendance.

Parents gave 102 different reasons for choosing the school their child ultimately attended. These coded into six categories and participants could choose multiple responses. The most prevalent were holistic reasons (69%) that focused on the child's overall wellbeing. Related comments from parents were; "*they are thriving where they are*" or "*my child* [sic] *isn't ready for that kind of school*" (p. 199). Academic reasons (58%) focused on concerns around classroom teaching and learning. Social reasons (33%) focused on relational concerns (e.g., "*friends are going there*", "*my child* [sic] *knows people there*", or "*the students there* [sic] *are too rough*" (p. 199). Logistical reasons (27%) focused on location, transportation and cost issues. Administrative reasons (25%) related to how the school was organised and run (e.g., "*I missed the school application deadline*", p. 199), suggesting inadequate communication with community. A few reasons that did not fit well into these categories made up the final *other* group (1%). Racial differences, social networks, customary enrolment patterns and children's academic history all related to parent choice sets. For example, parents whose children had less positive academic histories explained that they did not want to "*set their children up for failure*". They did not think they were selecting from *inferior* schools but thought the schools they considered would meet their children's needs, if each child put forth the appropriate effort. Only a few parents chose challenging schools for their academically struggling child.

This analysis of parent reasoning was particularly interesting because it clearly identified the prominence of previously *difficult-to-observe* internal factors such as social/relational priorities in family decision-making

processes, as well as the importance placed on children's overall sense of wellbeing as drivers of school choice. However, it also indicated that in the predetermination and selection phases of the choice process, parents invariably rely on fragmented, informal evidence. There is a clear need for appropriate measures to be assembled which help families to broaden the information they use to form their school choice sets. The availability of such measures might, in turn, encourage non-chooser families to engage actively in the choosing process. Whatever the reason parents give for choosing a particular school, when families are able to exercise their right to choose, the schools they choose invariably prove to be more suitable for them than the default local school (Bast & Walberg, 2004). Parents who intuitively exercise choice based on the alignment between their child's preferences and the attributes of candidate schools generally choose wisely. For this reason, it is imperative that parents be provided with better information on which they can base their school choice decisions.

5.3. Directions for future research

Numerous avenues for further research are suggested by the findings of the present study. First, as noted previously, the findings reported here should be replicated in a larger-scale study, which includes a broader and more diverse range of public, private, and independent schools. In particular, earlier in this chapter, it was noted that the school in this study that was classified as 'permissive' was higher in demandingness than would normally be expected in a typical 'permissive' school. This may have had the effect of attenuating the observable differences in the study, particularly in the female sample. Given the response from schools to the invitations sent for this study, and based on the sensitivities that surround school-based comparisons, a larger-

scale evaluation will require 'top-down' support from each of the school sectors involved. The results of this study, however, would help to provide warrant for such a follow-up.

Second, the present study provided only a 'snapshot' of relationships between student engagement and student-school alignment. Based on research which suggests that levels of student engagement often continue to decrease beyond Year 8, a longitudinal study should be conducted to compare the trajectories of students whose socialisation preferences and school socialisation styles are well aligned, and not well aligned, at the secondary transition point. It is possible that students who begin secondary school in unsuitable school contexts will continue to exhibit disaffection and other issues throughout their secondary school years. A longitudinal study would provide insight into whether this is the case, and might also be used to generate profiles of students who do, and do not, demonstrate resilience under these circumstances. The latter information could provide valuable information to schools in dealing long-term with students whose attributes appear to be misaligned with their school cultures.

Third, as noted previously, the notion of person-environment fit or alignment is quite general, and could be used to investigate students' learning outcomes across all education levels. For example, it would be of considerable interest to study the socialisation cultures of primary schools, and determine whether mismatches between these and the parenting styles to which students have been exposed cause any negative effects on student development. At the other end of the spectrum, the notion of student-institution alignment could be used to explore the trajectories of students following their transition from secondary school to university. Various studies have suggested, albeit

indirectly, that marked disparities between the socialisation cultures of students' secondary and tertiary institutions can lead to poor student outcomes (see Hillman, 2005). A formal investigation of the mechanisms involved in these relationships would provide a basis upon which institutions can act to provide additional supports and scaffolds for students who may be 'at risk' on this basis.

5.4. Concluding remarks

In the context of a rapidly changing education landscape in WA, this research is timely. At present, an appetite for equity, efficiencies and improvement in the Government school sector is gaining momentum. Initiatives that include devolution of school-based decision-making to local communities through the WA government's Independent Public Schools strategy; the Move to Year Seven transition initiative planned for 2015; the student-focused Classroom First initiative; and State Government school funding arrangements based on students' needs (Lamb & Teese, 2012) are encouraging. The research reported in this study aligns broadly with these strategies, providing a new perspective that focuses on student engagement as a key indicator of schooling effectiveness. Evaluating school suitability using psychological, affective, academic and behavioural engagement indicators on a student-by-school basis, presents an inclusive child-focused approach for evaluating the suitability of schooling choices and for empirically monitoring school effectiveness at the juncture of primary to secondary transition.

Results of the study were clear from an engagement perspective: Choice of secondary school matters, particularly for boys, but also, to a more limited extent, for girls. The application of a research framework borrowed from

socialisation and motivation theory in the present study thus facilitated a deeper understanding of the complex interplay between students' preferences, school attributes, and student engagement levels. The findings of the study not only provide a model for informing parents about the suitability of school choices, but also for evaluating the efficacy of transition decision-making at several levels in education contexts: community, whole-school, classroom and individual students.

During the period over which the present investigation was conducted, however, WA education policies made the availability of school choices to families significantly restricted. School choice in WA is highly regulated, to the point where the continued research into school choice may appear somewhat futile. However, it is argued here that policies which limit the rights of families to choose schools that they feel are most suited for their children are ultimately unsustainable. Over time, parents are likely to become increasingly vocal in demanding the right to choose appropriate schools for their children.

In the meantime, within WA, where most families currently have little choice but to send their children to the local public school, the responsibility for successfully engaging each student rests with schools. Thus, research into how schools are meeting the diverse needs of individual students is critical. It is clear that in prior school effectiveness research, the measurement of students' preferences and the alignment of these to school attributes has not been prioritised. However, educators can no longer ignore the call from civil society to further differentiate teaching and learning environments provided by schools in order to align with an increasingly diverse range of student needs and preferences.

Despite these arguments, schools that work within an accountability system that is focused on standardised academic test scores will be hard-pressed to offer a balance of demandingness and responsiveness for individual students. Previous research has suggested that school improvement efforts which focus exclusively on increasing test scores may be effective in the short-term, but may then generate unintended longer-term negative consequences such as decreased motivation and increased student disaffection.

Sheldon and Biddle (1998) suggest that the ultimate goal of education is to develop students as lifelong learners who can adjust to the changing needs of society. Therefore, future education policies need to develop in a way that will address the broader aspects of student development as a prerequisite. An accountability system that incorporates a wide range of development indicators would afford schools the flexibility to meet the needs of diverse student populations (Lee, 2008). It is hoped that the current research has contributed in some way to supporting the rationale for such a shift in focus.

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